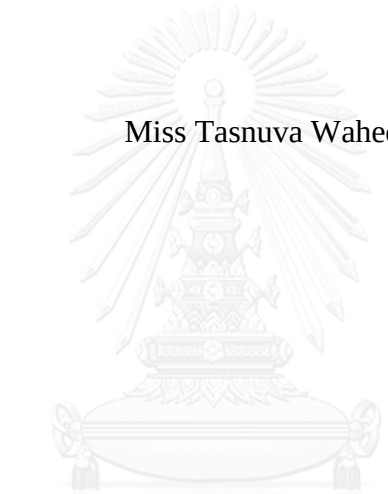
A MIXED METHOD STUDY ON BARRIERS IN REPRODUCTIVE HEALTH SERVICE DELIVERY FOR AND SERVICE UTILIZATION BY THE FEMALE SEX WORKERS OF BANGLADESH : TRANSLATING FINDINGS TO POLICY BRIEF

Miss Tasnuva Wahed



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การวิจัยเชิงผสมผสานเรื่องอุปสรรคของการให้บริการ และการใช้บริการอนามัยเจริญพันธุ์ ในกลุ่มหญิงบริการทางเพศ ประเทศบังคลาเทศ:ผลวิจัยสู่นโยบาย

นางสาวทัสนูวา วาเฮ็ด

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาสาธารณสุขศาสตรดุษฎีบัณฑิต
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ทัสนูวา วาเฮ็ด : การวิจัยเชิงผสมผสานเรื่องอุปสรรคของการให้บริการ และการใช้บริการอนามัยเจริญพันธุ์ ในกลุ่มหญิงบริการทางเพศประเทศบังคลาเทศ:ผลวิจัยสู่นโยบาย (A MIXED METHOD STUDY ON BARRIERS IN REPRODUCTIVE HEALTH SERVICE DELIVERY FOR AND SERVICE UTILIZATION BY THE FEMALE SEX WORKERS OF BANGLADESH : TRANSLATING FINDINGS TO POLICY BRIEF) อ.ที่ปรึกษาวิทยานิพนธ์หลัก: รัตนา สำโรงทอง, 174 หน้า.

หลักการและเหตุผล
หญิงขายบริการทางเพศในกลุ่มประเทศในเอเชีย มีแนวโน้มเพิ่ม อันเนื่องมาจากปัญหาการค้าประเวณีเด็กมีมากขึ้น สาหรับประเทศบังคลาเทศ ซึ่งเป็นประเทศขนาดเล็กในเอเชีย พบว่าหญิงขายบริการทางเพศที่ให้บริการ ตามสถานบริการทางเพศ โรงแรม และบริเวณข้างถนน มีจานวนประมาณ 7400 คน ซึ่งสตรีเหล่านี้เสียงต่อการเสียชีวิตและติดโรคจาการมีเพศสัมพันธ์ และโรคทางด้านอนามัยเจริญพันธุ์ การติดเชื้อ เอช ไอ วี/ โรคเอดส์ การแท้ง ตลอดจน ปัญหาด้านอนามัยแม่และเด็ก การศึกษาครั้งนี้มีวัตถุประสงค์ เพื่อ ศึกษาถึงพฤติกรรมที่เกี่ยวข้องกับ การคุมกาเนิด การแท้ง การตั้งครรภ์ เพื่อนาผลการศึกษามาเป็นแนวทางในการทาข้อเสนอเชิงนโยบายด้านอนามัยเจริญพันธุ์ โรคติดเชื้อจากการมีเพศสัมพันธ์ ปัญหา และอุปสรรค์ในการเข้าถึงบริการด้านอนามัยเจริญพันธุ์ ความพึงพอใจต่อบริการ และเพื่อเป็นแนวทางในการทารายงานสรุปต่อผู้วางนโยบายระดับประเทศ

ระเบียบวิธีวิจัย
การศึกษาครั้งนี้ เป็นการศึกษาแบบผสมผสาน โดยใช้การศึกษาเชิงคุณภาพ และ เชิงปริมาณในการเก็บข้อมูล ระหว่าง มีนาคม 2558 –กันยายน 2559 ในศูนย์บริการ drop in ในชุมชนซึ่งให้บริการสุภาพในการป้องกัน โรคติดเชื้อจากเพศสัมพันธ์ การติดเชื้อ เอช ไอ วี/ โรคเอดส์ ในกลุ่มหญิงขายบริการทางเพศ เมืองดักกา ประเทศบังคลาเทศ กลุ่มตัวอย่างได้แก่ หญิงขายบริการทางเพศวัยเจริญพันธุ์ (15- 19 ปี) ที่ขายบริการตามข้างถนน โรงแรม และสถานขายบริการทางเพศ นอกจากนี้ยังรวมถึง นักนโยบาย นักวิจัย แกนนาในหน่วยงานที่ให้บริการสุขภาพ/สังคม แก่หญิงขายบริการทางเพศ และ เจ้าหน้าที่ศูนย์บริการ drop in ในชุมชน

การศึกษาเชิงปริมาณ เป็นการสัมภาษณ์หญิงขายบริการทางเพศ จานวน 731 คน โดยใช้การสุ่มแบบมีขั้นตอน การศึกษาเชิงคุณภาพ โดยการสัมภาษณ์เจาะลึก หญิงขายบริการทางเพศ จานวน 14 คน และเจ้าหน้าที่ผู้ให้บริการด้านสุขภาพ 9 คน นอกจากนี้ ได้จัดประชุมเชิงปฏิบัติการ ผู้เกี่ยวข้อง 23 คนได้แก่ ผู้วางนโยบาย ผู้ปฏิบัติ เพื่อสร้างข้อเสนอแนะ เชิงนโยบาย ตัวแปรสาคัญในการศึกษาครั้งนี้ได้แก่ อัตราการใช้บริการด้านอนามัยเจริญพันธุ์ ปัญหาอุปสรรคในการเข้าถึงบริการ สถิติที่ใช้ในการวิเคราะห์ ได้แก่ Pearson’s Chi-Square Fisher’s Exact test และ one way ANOVA สาหรับการวิเคราะห์เชิงคุณภาพ ใช้การวิเคราะห์เนื้อหา

ผลการศึกษา
จากกลุ่มตัวอย่าง 731 คน ร้อยละ 45 อยู่ในอายุ ระหว่าง 25- 34 ปี ร้อยละ 45 ไม่ได้รับการศึกษา และ ร้อยละ 64 มีสถานะภาพสมรส ประมาณครึ่งหนึ่งของกลุ่มตัวอย่างมีรายได้ ต่อวัน 600 BDT (7.6 ดอลลาร์) หรือน้อยกว่านั้น ร้อยละ 45 มีบ้านอยู่ อาศัย ประมาณ 1 ใน 4 อาศัยอยู่ข้างถนน ร้อยละ 36.8 มีอาชีพเป็นหญิงขายบริการทางเพศมาประมาณ 3 -7 ปี กลุ่มตัวอย่างส่วนใหญ่ มีเพศสัมพันธ์ ต่อวันเฉลี่ย 4 ครั้ง หรือมากกว่า

ส่วนใหญ่ (ร้อยละ 91) ป้องกันการตั้งครรภ์ โดยวิธีการระยะสั้น โดยใช้ ถุงยาง ซึ่ง ร้อยละ 71 ใช้ถุงยาง ร้อยละ 21 ใช้ยาคุม และ ร้อยละ 16 ฉีดยาคุม สาหรับการป้องกันการตั้งครรภ์ระยะยาว หรือการใช้วิธีถาวร พบว่า มีการใส่ห่วง ร้อยละ 1.5 ฝังยาคุม ร้อยละ 4.7 ทาหมัน ร้อยละ 1.1 นอกจากนี้ยังพบว่าร้อยละ 61.3 มีประสบการณ์เรื่องปัญหาอนามัยเจริญพันธ์ ในปีที่ผ่าน โดย ร้อยละ 15.5 ทาแท้ง ร้อยละ 9 ตั้งครรภ์ ร้อยละ 8.3 คลอดบุตร ร้อยละ 41.6 มีอาการเกี่ยวข้องกับโรคติดเชื้อจากเพศสัมพันธ์ สาหรับผู้ที่ทาแท้ง (113 คน) ส่วนใหญ่ ทาแท้งโดยใช้การดูดสูญญากาศ (ร้อยละ 47.8) การถ่างและขูดมดลูก (ร้อยละ 31) ซื้อยาจากร้านขายยา (ร้อยละ 35.4) พบว่า ประมาณกว่าครึ่งของผู้ที่ทาแท้ง ร้อยละ 57.5 เกิดอาการแทรกซ้อน และพบว่า ในกลุ่มหญิงที่คลอดแล้วในปีที่ผ่าน (61 คน) มีเพียง ร้อยละ 27.7 ไปฝากครรภ์ครบ 4 ครั้งหรือมากกว่า 4 ซึ่งมากกว่าครึ่งหนึ่งกลุ่มตัวอย่างไม่ไปรับการตรวจหลังคลอด

พบว่า ร้อยละ 51 ของกลุ่มตัวอย่างมีปัญหาในเรื่องการแสวงหาการรักษาด้านอนามัยเจริญพันธุ์ ร้อยละ 72 มีปัญหาด้านการเงิน ร้อยละ 52.3 อายที่จะไปรับ ร้อยละ 52.3 รายงานว่า เจ้าหน้าที่ไม่ยินดีให้บริการ ไม่มีไมตรีจิตร(ร้อยละ 24.4) และระยะทางไกล (ร้อยละ 16.9) มีเพียง 1 ใน 3 ของกลุ่มตัวอย่างพึงพอใจต่อบริการ ซึ่งคะแนนความพึงพอใจเฉลี่ย 15 คะแนน (จากคะแนนระหว่าง 9- 16)

สาหรับผลการศึกษาเชิงคุณภาพ ในกลุ่มผู้ให้บริการ พบว่าบริการด้านอนามัยเจริญพันธุ์มีไม่เพียงพอ และปัญหาการส่งต่อ (อันได้แก่ ค่าใช้จ่ายในการส่งต่อ ระบบบริการส่งต่อที่ไม่ต่อเนื่องยั่งยืน ไม่ทราบว่าสถานที่ที่จะส่งต่อ)

บทสรุปและข้อแนะนา
ผลการศึกษาพบถึงปัญหาของการให้บริการด้านอนามัยเจริญพันธุ์ที่ยังไม่ตรงความต้องการหญิงบริการฯ ในเขตุเมือง ดักกา ประเทศบังลาเทศ ซึ่งในระบบบริการที่มีอยู่มุ่งเน้นเรื่องการควบคุมป้องกันการติดเชื้อ เอส ไอ วี/เอดส์เท่านั้น ดังนั้นจึงเป็นเรื่องสาคัญที่จะจัดบริการด้านอนามัยเจริญพันธุ์แบบบูรณาการ โดยเฉพาะการรวมเรื่องการแท้ง การให้บริการอนามัยมารดา เพิ่มเติมในระบบบริการที่มีอยู่

สาขาวิชา สาธารณสุขศาสตร์ ลายมือชื่อนิสิต .....

ปีการศึกษา 2559 ลายมือชื่อ อ.ที่ปรึกษาหลัก .....

5779158753 : MAJOR PUBLIC HEALTH
KEYWORDS: FEMALE SEX WORKERS; SEXUAL AND REPRODUCTIVE HEALTH; CONTRACEPTIVE SERVICES, BARRIERS IN SERVICE UTILIZATION, BARRIERS IN SERVICE DELIVERY, ABORTION SERVICES, MATERNAL HEALTH CARE, SATISFACTION WITH SERVICES, SEXUALLY TRANSMITTED INFECTIONS

TASNUVA WAHED: A MIXED METHOD STUDY ON BARRIERS IN REPRODUCTIVE HEALTH SERVICE DELIVERY FOR AND SERVICE UTILIZATION BY THE FEMALE SEX WORKERS OF BANGLADESH : TRANSLATING FINDINGS TO POLICY BRIEF. ADVISOR: ASSOC. PROF. RATANA SOMRONGTHONG, Ph.D., 174 pp.

Background

There is an increasing trend in the Female Sex Workers (FSWs) population in many Asian countries, as women are often entering the sex trade at younger ages than in the past. In Bangladesh, a small country in Asia, approximately 74000 FSWs are operating in brothel, hotel, and residence or on the streets. These FSWs are most at risk of mortality and morbidity related to sexual and reproductive health (SRH) which include HIV/AIDs, STIs, and unsafe abortion including other maternal health problems. This study aimed to document SRH related practices by FSWs, particularly on contraceptives, abortion, pregnancy, use of maternal healthcare services and sexually transmitted infections (STIs) and the barriers FSWs in Bangladesh face with regard to accessing SRH care, and to assess the satisfaction with the healthcare received with the aim of developing recommendations for action.

Methods

A mixed method study comprising of qualitative and quantitative methods of data collection had been implemented between March 2015 and September 2016 in Dhaka city of Bangladesh where community based drop-in-centers (DICs) were operating for STI/HIV prevention intervention among FSWs. The study population included street, hotel and/or residence based FSWs of reproductive age (15-49 years). It also included policy makers, researchers and key personnel of organizations which were currently providing services for female sex workers including DIC staffs. About 731 FSWs were surveyed using a stratified sampling technique. About 14 in-depth interviews with FSWs and 9 in-depth interviews with service providers were also conducted. A workshop with 23 participants consisted of policy makers, researchers, program implementers was conducted to formulate recommendations. SRH-related service utilization rates and reported barriers faced in service utilization were main outcome variables. *Descriptive statistics,* Pearson's Chi-Square and Fisher's Exact test, one way ANOVA analysis were used for quantitative data analysis. Atlas-ti data management software and content analysis was done for qualitative data analysis.

Result

Of 731 FSWs interviewed, 45% were 25 to 34 years old, 45% had no education and64% were married. Around half of the respondents had a daily income of 600 BDT (7.6 US$)or less per day. About 47% of them were living in residential while around one-fourth of them live on the street. About 36.8% respondents were involved in sex trade for 3 to 7 seven years. The majority (71.4%) of the FSWs were engaged in sex act for 4 or more times per day.

Greater proportions (91%) of FSWs were using short acting methods, condom (71%), oral pill (21%) and injection (16%). The reported use of long acting and permanent methods (LAPM) - Intra-uterine device (IUD) (1.5%), implant (4.7%) or female sterilization (4.5%) was very low (11%). About 61.3% of 731 FSWs reported SRH-related experiences in the past one year, including abortion (15.5%), ongoing pregnancy (9.0%), childbirth (8.3%) or any symptoms of STIs (41.6%). Among FSWs who had an abortion (n=113), the most common methods included menstrual regulation through manual vacuum aspiration (47.8%), followed by Dilation and Curettage procedure (31%) and oral medicine from pharmacies (35.4%). About 57.5% of 113 cases reported post abortion complications. Among FSWs with delivery in the past year (n=61), 27.7% attended the recommended four or more antenatal care visits and more than half did not have any postnatal visit.

Of 731 FSWs, 353 (51%) reported facing barriers when seeking sexual and reproductive healthcare. Financial problems (72%), shame about receiving care (52.3%), unwillingness of service providers to provide care (39.9%), unfriendly behavior of the provider (24.4%), and distance to care (16.9%) were mentioned as barriers. Only one-third of the respondents reported an overall satisfaction score of more than fifty percent (a score of between 9 and16) with formal healthcare.

Inadequacy or lack of SRH services and referral problems (e.g., financial charge at referral centers, unsustainable referral provision, or unknown location of referral) were reported by the qualitative participants as the major barriers to accessing and utilizing SRH care. Adopting sustainable and effective strategies to provide accessible and adequate SRH services for FSWs was prioritized by workshop participants.

Conclusion and recommendations

There was substantial unmet need for SRH care among FSWs in urban areas in Dhaka, Bangladesh. Therefore, it is important to integrate SRH services for FSWs in the formal healthcare system or integration of abortion and maternal healthcare services within existing HIV prevention services.

Field of Study: Public Health
Academic Year: 2016

Student's Signature .....
Advisor's Signature .....

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ABBREVIATIONS

FSWs	Female sex workers
SRH	Sexual and reproductive health
MH	Maternal healthcare
STIs	Sexually transmitted infections

CHAPTER I
INTRODUCTION

1.1: Background

Female sex workers (FSWs) are most at risk of mortality and morbidity related to sexual and reproductive health (SRH) which include HIV/AIDs, sexually transmitted infections (STIs), and unsafe abortion including other maternal health problems. These women are a marginalized and highly stigmatized group in society making them particularly vulnerable for limited care seeking for their SRH needs which should be considered as a priority, an important public health issue to take in to account.

The number of FSWs are usually not included in the global population statistics. The prevalence of FSWs is higher in Latin America (0.2% and 7.4%) and Sub Saharan Africa (0.4%- 4.3%) than other regions of the world, such as- in Asia (0.2% and 2.6%), ex-Russian Federation (0.1% - 1.5%); in East Europe (0.4% -1.4%); in West Europe (0.1%-1.4%) . Studies have shown that over the last decade, many Asian countries have seen an increase in the size of their sex worker population and it has been noted that women are entering the sex trade at younger ages than in the past (1). In Bangladesh, a low income country of South Asia had an estimated 74,300 FSWs (0.22% of 15-49 aged female population) operating in brothels, hotels and residential settings, and on the street (2).

The number of clients entertained by each FSW in Bangladesh is one of the highest in Asia. According to the 7th round behavioural surveillance survey, brothel-based

FSWs entertained an average of 20 clients per week (3). The prevalence of HIV in Bangladesh is less than one percent. A recent study showed that 61% of hotel-based FSWs had become pregnant once or more and 51.4% reported using menstrual regulation (4). FSWs are most at risk of becoming pregnant because of majority being in reproductive age, with low negotiation power for condom use to prevent HIV as well as unwanted pregnancy and inability to get access to other form of contraceptives, and coupled with the high number of clients they get focus is drawn on meeting clients needs rather than practicing safer sex. Moreover, FSWs are at particular risk for STIs (5) and STIs have been associated with a number of adverse pregnancy outcomes including spontaneous abortion, stillbirth, prematurity, low birth weight (LBW), postpartum endometritis, and various sequelae in the surviving neonates such as Gonoccocal conjunctivitis etc (6). However, some FSWs continue their pregnancy up to 28 weeks of gestation or more. One study demonstrated that 12% of brothel-based FSWs had a child less than one year of age but did not specify whether these children were the result of pregnancies from active sex work or they were active sex workers during these pregnancies (7).

A study conducted in Africa showed that there were 54 projects found which were mainly supplying HIV prevention and STIs services to FSWs (8). Similarly, health programmes for FSWs in Bangladesh are largely focused on STI/HIV prevention interventions, with very limited services for their maternal healthcare needs. There is lack of studies on such services and the SRH needs of FSWs. Therefore, it is essential to assess current status of FSW's SRH service availability with quality care and service utilization including maternal healthcare practices for developing effective

interventions to improve their overall SRH outcomes. The African study also added a wide range of barriers to provide reproductive services to FSWs which included lack of coordination among national or regional stakeholders, lack of support from Government (8). Informal discussion with key personnel of STI/HIV service implementers targeting FSWs in Bangladesh indicated that there are multiple factors or barriers in providing health services which is not documented well yet in the country. This is crucial need to identify existing barriers on reproductive health service delivery systems for FSWs in Bangladesh.

Long waiting hours, the location of clinic services either inconvenient or unknown, lack of confidentiality and discrimination held by health care providers, poor communication between service providers, stigma or shame or fear of exposure to the public as a sex worker were identified as main barriers to service utilization by FSWs in different part of the world (9-11). Without exploring perspective of beneficiaries on barriers they faced while looking for care, a health intervention cannot got concrete ideas where or in which areas of health service component should be strengthened. There is lack of studies in Bangladesh to identify barriers in seeking care for SRH services by FSWs. Thus, this study will also identify the barriers of receiving selected SRH services by the FSWs.

Policy brief was developed and used by the study investigator team of Burkina Faso, a group of researchers and policy makers for treatment of malaria by using artemisinin-based combination therapies (ACT) in 2010. The involvement of different types of key personnel including Government stakeholders in the discussion on widespread

use of ACT were initiated which produced the policy brief as a national policy dialogue in the county. This brief was also used to inform the Global Fund for HIV-AIDS, TB and Malaria (GFATM) in its 7th Round about the successful application of Burkina Faso (12, 13). For the role of policy briefs in informing national policy makers and other stake holders on status of ongoing health programme to keep the implementation strategies on tract, the researchers and programme implementers are considering to add an activity to formulate policy brief using research findings (14-16). There is lack of translating the research findings that targeted the reproductive health interventions for FSWs into policy briefs. Therefore, we propose to conduct a research at first phase on identifying barriers in reproductive health service delivery for and service utilization by the FSWs of Bangladesh. In the second phase of this research we will prepare a few policy briefs based on the findings of first phase research.

1.2: Rationale of the study

The healthcare system may face challenges to provide services to SW effectively for complex relationship among different types of health facilities, healthcare providers, and target beneficiaries including national and international policy. The barriers in service delivery impede the progress of programme or interventions. Obstacles or barriers in getting services may drive FSWs to the informal or unqualified health practitioners and also may increase harmful care practices (Figure 1). Understanding the types of barriers in delivering or receiving services is essential to develop effective implementation strategies for change. Findings of such research will enable healthcare managers to consider relevant initiatives to undertake or reform any

existing activity. Using careful consideration, it is possible to develop an approach to overcome the barriers, encourage changes in behaviour and ultimately implement guidance (17).

The new, innovative or any existing community interventions have chances to success or failure to meet their maximum potentials or achieve the essential requirement. There is scope of both positive or negative change or no effective change (18, 19). The result of continuation of barriers in health intervention causes the loss of lots of resources in term of manpower, logistics and materials and of course, financial consequences. The chances of ineffectiveness or negative change continue increasing when key decision or policy makers are kept in blind on the progress of intervention including its successful or barrier points. Therefore, it should be essential part of intervention to inform policy makers the barriers of implementation activities to receive their urgent attention and reform or modified the problematic strategies or policy for better performance of the on-going or future programme. A policy brief can serve as an important tool to inform policy makers as well as key important decision makers periodically on the barriers of health service delivery by the implementers or service providers including the service receivers' points of views. This way, the healthcare system can be strengthened and positive effective outcome can take place.

1.3: Research questions

- What are the currently available SRH services and health facilities for FSWs of Bangladesh?

- To what level does FSWs utilize SRH services?
- What are the barriers of delivering SRH services for FSWs of Bangladesh?
- What are the barriers of receiving SRH services by FSWs of Bangladesh?
- What are the recommendations of policy makers to overcome the barriers?
- How to translate the identified information on barriers and possible solutions into policy briefs?

1.4: Research objectives

General objective

- To document availability and barriers in reproductive health service delivery for and service utilization by the FSWs of Bangladesh,
- To formulate policy briefs using information collected on barriers and possible solutions

Specific objective

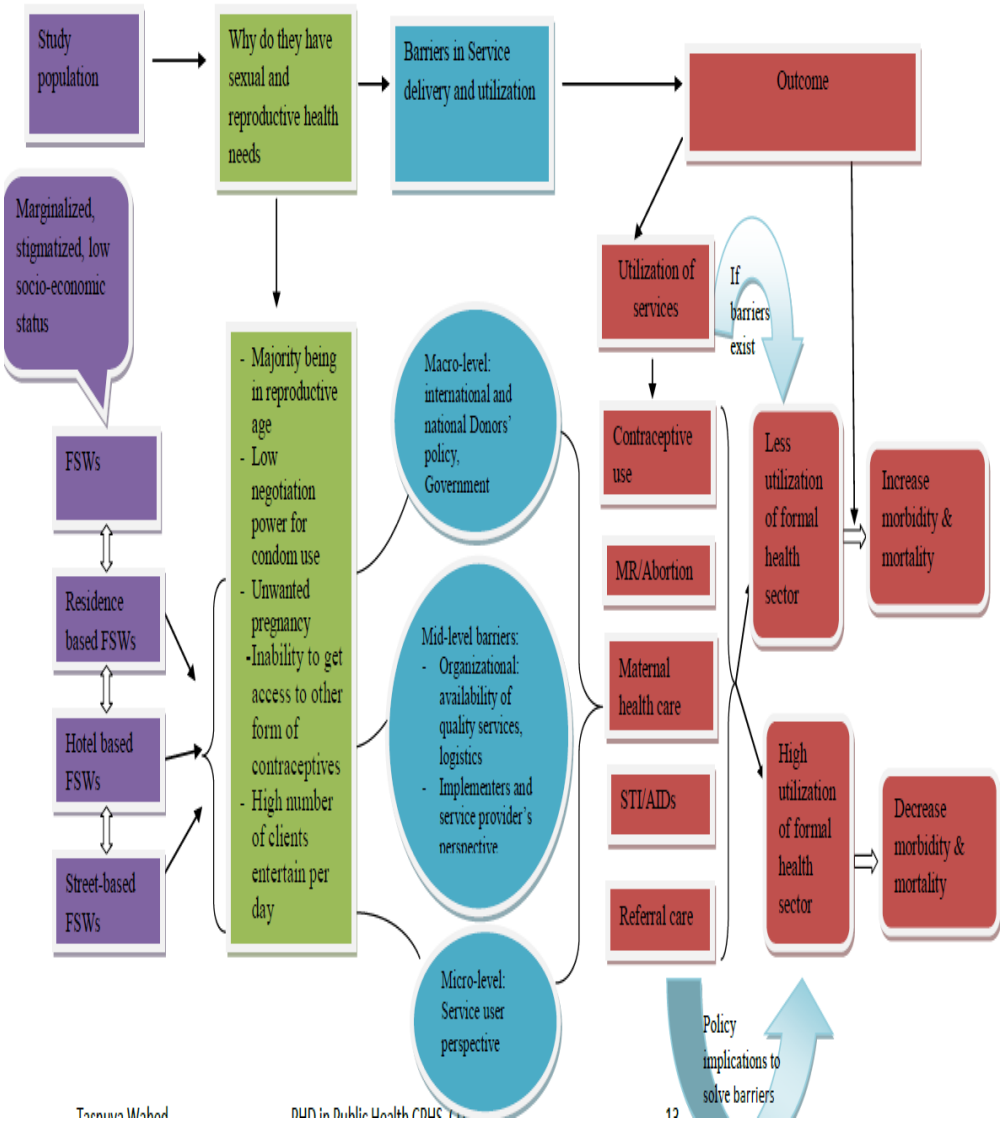
- To explore the currently available SRH services and health facilities for FSWs of Bangladesh , especially on:
    - Contraceptive use
    - MR/Abortion
    - Maternal healthcare
    - STI/AIDs
    - Referral care
- To assess the utilization of SRH services by FSWs
- To identify and discuss about barriers in service delivery to FSWs including quality of care

- To explore the barriers of receiving reproductive health services by FSWs of Bangladesh
- To formulate policy briefs using information collected on barriers and possible solutions

1.5: Hypothesis

It will be an exploratory study and no hypothesis will be tested

Figure 1: Causal flow of studying barriers in service delivery for and service utilization by the FSWs



Operational definitions

i) General terms

- **FSWs:**

  Sex workers include "female, male and transgender adults and young people (18 years of age and above) who receive money or goods in exchange for sexual services, either regularly or occasionally" (19). All women who provide sexual services commercially in exchange of money, goods or other benefits will be considered as FSWs. The transgender will not be added in this study.

- **Type of sex worker:** Three types of FSWs will be included: hotel, street and residence based.

ii) Independent variables

Socio-demographic:

- Age: Self reported age in completed years by FSWs will be considered. This age will be validated by national ID card if any FSWs can show it.
- Education: The completed year of schooling will be recorded during interviews with FSWs. considered. Considering Bangladesh education system, Primary (1 to 5 years), Secondary (6-10 years), Higher secondary and above (11 and above years) will be categorized during analysis of education.
- Monthly income: The self reported average monthly income from commercially sex work will be recorded.
- Duration of involving sex work: Self-reported total length of time in years involved in sex works will be recorded.
- Marital status: Current marital status will be recorded as single or married or widowed or divorced or separated.

- Religion: Four types of religious people are mainly living in Bangladesh, such as- Muslim, Hindu, Buddhist, Christian. Self reported religion of respondents will be recorded.
- Accommodation: Self-reported current place of dwelling will be recorded as, home in slum areas or home in residential areas or on street or in DIC.
- Family size: Self-reported total number of family members currently living with the respondents will be recorded.

Reproductive variables:

- Parity: Self-reported number of time a FSW gave birth in her life time will be recorded
- Gravidity: Self-reported number of time a FSW had pregnancies in her life time will be recorded
- Number of living children: Self-reported total number of children of FSWs are currently living will be recorded

iii) Dependent variables

Primary outcome:

- Barriers in SRH service utilization: If any respondent mentions that they face barriers either to service delivery to FSWs or service receiving from any type of health facilities or healthcare providers while seeking care on any of five types of SRH service (contraceptive use or MR/Abortion services or maternal health care or STI/HIVs or referral care), this response will be considered as barriers in SRH service utilization. Barriers or no barriers will be considered as main outcome

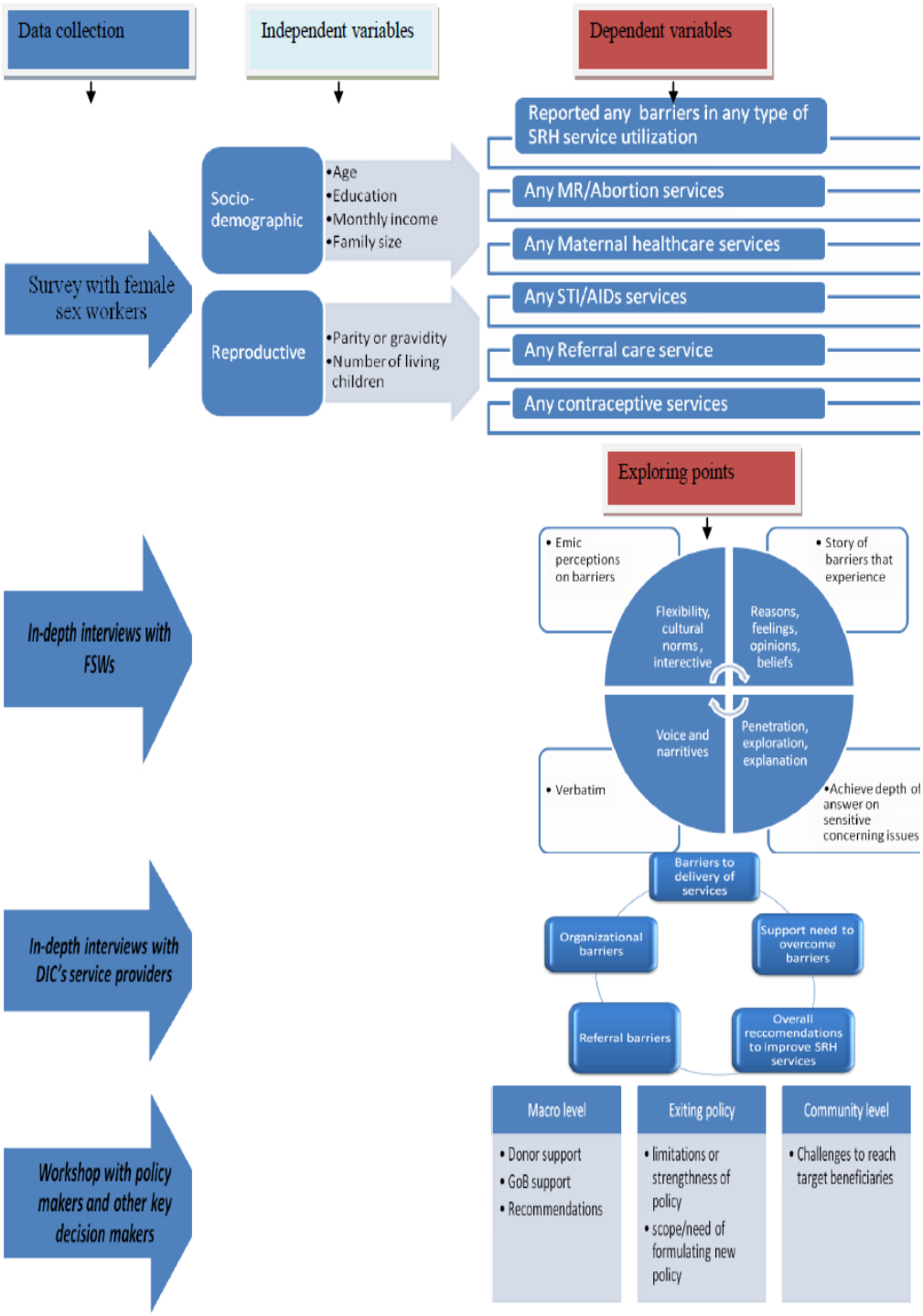
variable. The barriers will be assessed in different aspects, geographical (distance, means of transport) economical, cultural,, opening hours, staff attitudes.

Secondary outcome: A few secondary outcome variables will be analyzed in this study which is describing below:

- Utilization of any services: If any respondent mentioned that they use any of five types of SRH service (contraceptive use or MR/Abortion services or maternal health care or STI/HIVs) during only once or during follow up visits, this response will be considered as utilization of any services. Use or not use of utilization of any services will be considered as an outcome variable.
- Use of contraceptive: If any respondent mentions that they use any types of condom (male or female condom) during their last commercial sex or any other contraceptives (eg., Oral pill, IUD, Norplant, female sterilization), this response will be considered as use of contraceptive. Use or not use of any contraceptive services will be considered as an outcome variable.
- Use of MR/Abortion services: If any respondent mentions that they use any MR/Abortion services in last one year this response will be considered as use of contraceptive. Use or not use of any MR/Abortion services will be considered as an outcome variable.
- Use of maternal healthcare: If any respondent mentions that they use any health services during pregnancy, delivery or postpartum in last one year this response will be considered as use of maternal healthcare. Use or not use of any maternal healthcare will be considered as an outcome variable.
- STI/HIVs services: If any respondent mentions that they use any health services to seek care for STI/HIV in last one year this response will be considered as use

of contraceptive STI/HIV service. Use or not use of any STI/HIV services will be considered as an outcome variable.

Figure 2: Conceptual framework of identifying barriers in service delivery for and utilization by female sex workers



CHAPTER II
LITERATURE REVIEW

2.1. Global targets to improve SRH

2.1.1. Sustainable development goal:

The UN Summit in New York in September 2015 adopted 17 sustainable development goals (SDG) for health and sustainable development over the next 15 years. The SDG 5.6 is "Ensure universal access to SRH as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences" (20). Alanna J. Galati described about a set of indicators to measure SRH progress under SDG target (21).

RECOMMENDED SRHR INDICSTORS FORPOST 2015: SUSTAINABLEDEVELOPMENT GOALS

Target 3.7: Health
By 2030, ensure universal access to sexual and reproductive health care services , including for family planning ,information and education and the integration of reproductive health into national strategies and programmers.

Measurement	Available	Aspirational
Contraception		
• Proportion of family planning demand met with modern contraception	✓	
SRH Services Availability		
Proportional of health facilities that provide essential SRH services	✓	
• Proportional of health facilities that provide postpartum , post abortion and /or HIV services that also provide clients who use those services with contraception information and care.		✓
Knowledge about SRHand right		
• Proportion of young men and women aged 15-24 with basic knowledge about SRHand right.	✓	

Adolescent Fertility		
• Adolescent birthrate (among women aged 10-14,15-17 and 18-19)	✓	
• Proportion of births to women younger than 20 that were unplanned.	✓	
Quality of care ,including Respect and care Rights		
• Proportion of women using contraceptives who were informed about possible side effects oftheir methods and who to deal with them who were informed about other family planning methods and who participated in the decision to use contraceptives.	✓	
• Proportion of family planning services sites with at least five modern methods available.	✓	
• Whether universal access to contraceptive and others SRH information and services is included in national policy.	✓	
• An indicator reflective of respectful care and human rights in provision of SRH information and services .		✓
Prevention of sexual Transmitted Infection		
• Proportion of females who have received the recommended number of doses of HPV vaccine prior to age 15	✓	
• Country includes HPV vaccination in its vaccination program .	✓	
Abortion		
• Proportion of health facilities that provide care of complications related to unsafe abortion or where it is not against the law that provide safe abortion .		✓
• Grounds under which induced abortion is legal.	✓	
• Number of unsafe abortions per 1,000 women aged 15-44 (or 15-49)		✓

Adopted from: Galati, A.J., *Onward to 2030: SRHand Rights in the Context of the Sustainable Development Goals.* Guttmacher Policy Review, 2015. **18**(4): p. 80.

2.1.2 Millennium Development Goal 5 (MDG 5): Improve maternal Health

To speed up in development of global health, the Millennium Development Goals (MDGs) were declared at the 2000 Millennium Summit where improving maternal health is one of the priorities. The summit set two targets with associated indicators under Millennium Development Goal-5 (MDG-5) to assess and monitor the progress of women with reproductive age (15-49 years). The two targets (22) are as following:

Target 5.A. Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

Target 5.B. Achieve, by 2015, universal access to reproductive health

2.1.3. National target to improve health of sexual minority and SRH of women

The 7th five year plan FY 2016 - FY2020 of Government (23) has undertaken several strategies in the Chapter 14 "Social Protection, Social Welfare And Social Inclusion" to improve health of sexual minority group and SRH of women as following-

"*14.5 Social Inclusion:*

Sexual Minority Groups (Page 639-640): *These groups include people living with HIV/AIDS, female and male sex workers and transgender. All the sexual minority groups face different types of social exclusion which restrict their blending into the mainstream society. Stigma and discrimination against people living with HIV/AIDS is prevalent ……..uptake of prevention programmes. Of all the types of social exclusion faced by the FSWs, exclusion regarding their children is the most threatening one. Children, especially daughters, of sex workers are more prone to becoming sex workers as well……..Many of the sexual minority issues are in conflict with existing laws, e.g. sodomy is a punishable act under criminal penal code. There are additional problems in case of availing social services. Transgender and sex workers are not considered for health insurance, while they probably need it more than others. Problems also prevail in case of attaining security and legal services from law enforcement authorities….All these factors contribute to pushing sexual minority*

groups away from the mainstream and into deeply entrenched marginalization and lack of societal identity. The combination of a lack of knowledge, misinterpretation, incorrect information, religious condemnation, punitive laws and practices leads many sexual and gender minority people to experience confusion, a sense of worthlessness riddled with guilt.

Inclusion Strategy for the Seventh Plan for Sexual Minority Groups (Page 649):

The vision is a society where sexual minority groups, i.e. transgender, can live with respect and dignity and enjoy tolerance and social justice. This includes an HIV/AIDS free society with zero new infections, zero discrimination and zero deaths.

- *People infected and affected by HIV/AIDS will be given universal access to treatment, care and support services. This will include increased coverage of ……. getting tested.*
- *Sexual minority groups will be integrated in the national social protection mechanisms including access to social health insurance or other .....are most vulnerable.*
- *Coordination mechanisms and management capacity at different levels ..... will be strengthened.*
- *The Government will make laws and policies .....health care workers to increase knowledge and tolerance.*

14.6 Gender Equality

Gender Strategy for the Seventh Plan (page 654)

The framework for women's empowerment and gender equality comprises of 4 areas of strategic objectives; 3 of them are relevant with SRH:

Improve women's human capabilities (page 654): *This deals with women's and girls' access to health care…… freedom from violence and coercion.*

Enhance women's voice and agency (page 654): *This pertains to women's role as decision makers in public and private spheres including politics and promotion of their leadership is considered here. Changed attitudes 655 on women's and girls' rights, women's enhanced knowledge of their rights and increasing their bargaining power are reflected on.*

Create an enabling environment for women's advancement (page 655): *The socio-political environment, legal and policy support, and congenial social norms are the key in this area. Oversight, enforcement of laws, regular collection of sex-disaggregated data, gender and social analysis skills including the capacity to develop, implement, and monitor gender strategies, understanding of gender issues in the sector are the key areas.*

To implement these strategic objectives, seven action areas have been identified that will contribute in achieving results in these four areas.

1. Increase access to human development opportunities ***(page 655)****: To implement this strategic objective, the Seventh Plan will focus on the following areas.*

Life cycle based disease prevention and curative healthcare services (page 655)*: Considering the current realities of women in Bangladesh, a lifecycle based healthcare system including tertiary care should be accessible to women within affordable cost. The health care system would be made more responsive to differential needs of women and men aiming at reducing discrimination and ensuring equal benefits. One important initiative will be to undertake information and motivational ……maternal and ante-natal care for pregnant women and post-natal care for both mother and child would be ensured through increased facilities as well as information and motivation ……..Expansion of women friendly hospitals in all districts by enhancing services in all sadar hospitals and medical college hospitals including outputs of reproductive health care will be done. …….. will be scaled up for HIV infected women.*

Modern reproductive health and family planning services (page 656): *Counselling on population control and reproductive health and behaviour would be continued and expanded in all health care centres. Community based family planning services would be continued and expanded to cover urban poor women and men.*

Women's decision-making over reproductive health (page 654): *Information and education is necessary to enhance women's control over their own reproductive health. Counselling services would be made available in all health care centres for men, women and couples.*

2. Enhance access to and control over productive resources

3. Increase participation and decision making

4. Establish conducive legal and regulatory environment

Removal of all discriminatory provisions in all laws and policies (Page 661): *Some laws and policies are yet to incorporate provisions to ensure women's participation and equal rights and these need review and revision……..Partnership with women groups would be promoted for this.*

All laws effectively enforced to uphold rights of women and girls (page 661): *The enforcement of the legal and policy provisions would be ensured through establishing effective mechanisms and accountability. …….human trafficking cases would be formed.*

5. Improve institutional capacity, accountability and oversight

6. Increase protection and resilience from crisis and shocks

7. Promote positive social norms"

2.2. Sex work: definitions, classification, estimate and other features

2.2.1. Meaning and classification of sex work: global context

Accordding to the Frédérique Delacoste and Priscilla Alexander (1987), "sex work" is a term that describes various occupations related to sexual activities in exchange of money (or its equivalent), for example, prostitutions, exotic dancers, nude models, escorts, porn actresses, and workers in massage parlors (24). C Harcourt and B Donovan described sex work by categorizing it into two types: i) "direct" sex work included indoor or outdoor prostitution, escort services where genital contact is usually made for a fee and ii) "indirect" prostitution involves comparatively less genital contact

where a fee is charged for virtual sexual activities using internet or phone or other indirect sex like lap dancing, massage. In the second category, sex work may not be recognized as prime source of income (Table 1 and Table 2) (25).

Table 1: A typology of "direct" sex work

Type	Geographic distribution
Street clients solicited on the street, park on the public places. Serviced in side streets, vehicles or short stay premises.	Widespread particularly if alternative work sides are available (united states ,Europe ,United kingdom, Australia)and/or there is socioeconomic breakdown (eastern Europe parts of Africa south and south East Asia and Latin America)
Brothel:premises explicitly dedicated to providing sex .Better security than street .often licensed authorities.	Preferred where sex worker is decriminalized or brothel are tolerated (Australia,New Zealand, South East Asia,India ,Europe, Latin America.
Escort: client contactsex worker by phone or via hotel staffs .Most covert form of sex work .Relatively expensive because of low client turnover service provided at clients home or hotel room.	Ubiquitous, in the United states escort sand private workers contracted by phone and working from a "call book" are known as "call girls" or "call men".
Private: Client contact sex worker by phone. similar to escorts expect services provided in sex worker's premises .A variant in London and other big cities in "float" prostitution-high cost services in rented ,serviced, inner city units.	United kingdom, Europe and United States and Australia,sometimes doorway (see below) and street sex workers bring clients home.
Window or doorway :Brothels with sex workers on public display ,window preferred in cold clients, doorways in warmer places	Window prostitution almost unique to Amsterdam and Hamburg .Doorway prostitution found in less affluent areas of European cities and in African and other developing countries.
Club ,pub ,bar ,karaoke bar ,dance hall: Clients solicited in alcohol vending venues and serviced on site or elsewhere	Ubiquitous depending on types of male club available.
Other all male venues: Clients solicited in all male venues such as barbershops, both houses, saunas and mining camps, serviced on site or elsewhere.	Ubiquitous.
Door knock hotel: Unattached manes are approached in that hotel rooms or boarding houses.	Hotels worldwide and wherever large number of unaccompanied males resides.
Transport(Ship, Truck, and Train): Sex workers may board vehicles to servicethe crew or	Ubiquitous

Type	Geographic distribution
passengers or pick up clients at stations and terminals.	
CB radio: Sex workers drive along highways using CB radio to exchange (jargon) messages with potential truck driver clients. Serviced all truck stops, parking areas.	Ubiquitous
Other methods of solicitation: Through various media including noticeboard and newspaper advertisements, "sex work catalogues" with mobile phone numbers the internet via virtual brothels etc.services are delivered mostly in brothels and other indoor venues.	Ubiquitous, but internet and mobile services are mostly confined to large cities in developed counties --- particularly the United kingdom and Sweden where legislation limits other forms of advertising.

Adopted from: Harcourt, C. and B. Donovan, *The many faces of sex work.* STIs, 2005. **81**(3): p. 201-206.

Table 2: Typology of "indirect" sex work

Type	Geographic distribution
Bondage and discipline: Sexual fantasy through role play .Many involve the inflicting of pain but genital contact is not routine.	Apparently unique to wealthier countries.
Lap dancing : A recent development involving erotic dancing at close quarters without sexual contract	Predominantly weather countries often take place in hotels and clubs.
Massage parlor: Premises ostensibly dedicated to providing massage .but a range of sexual services may be provided .In south East Asia similar arrangements may apply in barbershops.	Europe, South East Asia and Australia.
Travelling entertainers: Actors, dancers and other involved in entertainment may be also provide sexual services	South East Asia.
Beer girls: Young women hired by major companies to promote and sell products in bars and clubs .Sexual services sold to supplement income.	Cambodia, Uganda, other developing countries.
Street vendors and traders :Ostensibly marketing rural produce or other goods but supplementing income with sexual services	Widespread in developing countries
Opportunistic: A person approached in a social venue may occasionally choose to charge for sexual favors if the client appears wealthy enough.	Ubiquitous
Femme liber: women usually single or divorced who exchange sexual services for gifts .The gifts are converted to cash.	Central Africa

Type	Geographic distribution
Individual arrangement: The single mother who may have sex her landlord in place of rent .Older sex workers who only deal with a small number of regular clients by appointment "kept" women or men concubines. The number of passible arrangement is vast.	Ubiquitous
Swingers clubs: Some swingers or couples sex clubs employ (Undisclosed) sex workers if there is a shortage of female gusts.	Predominantly wealthier countries.
Geisha;Women engaged primarily to provide social company but sex may ensure.	Japanese cities.
Sex for drug: Women providing fellatio for crock cocaine in crack houses. Young house sexual men in western countries may provide opportunistic sexual services paid with drug.	Crack houses are unique to the united states.
Beach boys,bursters and gigolos : Men and boys engaged by women ostensibly for social purposes but sex is often involved. Some beach boys are under aged and many also services male clients.	Resorts, particularly in developing countries.
Survival sex :A matter of degree ,where starvation or other serious deprivation isimminent ,particularly for defendants,Food or security may be the currency rather than money	Refugee camps anywhere.

Adopted from: Harcourt, C. and B. Donovan, *The many faces of sex work.* STIs, 2005. **81**(3): p. 201-206.

2.2.2. Classification of sex workers: Bangladesh context

There are usually four categories of FSWs; i) brothel-based ii) hotel-based iii) street based iv) residence-based FSWs available in Bangladesh. Although different surveys conducted in Bangladesh, classified FSWs based on the venues where there is a negotiation starts between FSWs and clients and/or where they do their sex trade (26) , the real situation is more complex which do not follow always the defining criteria. For example, street-based FSWs do not always make contact with clients from streets; she may maintain a contact from home. Similarly, the hotel-based FSWs may have their sex trade out of hotel venue with the help of hotel managers who have a laision

with clients those prefer not to come at hotel. However, common features of different types of Bangladesh sex workers have been shown in (Table 3).

Table 3: Definitions used in different surveillance of Bangladesh

Type of FSWs	Serological surveillance	Behavioral surveillance
Brothel based sex workers	Those who were selling sex in a brothel during the previous month	Those who were contacted by clients in a brothel setting, with the sex act generally taking place in brothels
Street based sex workers	Those who were selling sex on the street during the previous month	Those who were contacted by clients on the street, with the sex act taking place in public spaces or other venues
Hotel based sex workers	Those who were selling sex in hotel during the previous month	Those who were contacted by clients in a hotel setting, with the sex act taking place there
Casual sex workers	Those who were selling sex either in the street, residence or hotel during the previous month and had either one or more (other) main sources of income	

Adopted from: Azim, T., et al., *20 Years of HIV in Bangladesh: Experiences and way forward*. 2009, The World Bank, UNAIDS: Dhaka, Bangladesh.

2.2.3. Global estimate of FSWs

Estimating FSWs is a tough task for several reasons: high migration and hiding tendency, under-reporting by Government for restrictive views. A review of literature in 2006 showed a wide range of numbers by geographical area in the globe (Table 4). The prevalence of FSWs is higher in Latin America (0.2% and 7.4%) and Sub Saharan Africa (0.4%- 4.3%) than other regions of the world, such as- in Asia (0.2% and 2.6%), ex-Russian Federation (0.1% - 1.5%); in East Europe (0.4% -1.4%); in West Europe (0.1%-1.4%) (27).

Table 4: Estimated numbers of FSWs by region in the world

Country	Location	Area	FSW, n	Adult women n (15-49 years)	% FSW	Estimation method	Year
Sub-Saharan Africa		Capital	1915	133,912	1.4%	Mapping & Census	1997
West African countries Benin	Cotonou	Capital	1750	149,648	1.2%	Mapping &Census	2001
	Porto-Novo	Provincial town	274	55,405	0.5%	Mapping &Census	2004
	Abomey/Bohicon	Provincial town	36	68,374	0.1%.	Mapping &Census	2004
	Parakou	Provincial town	236	50,896	0.5%	Mapping &Census	2000
	Kandi	Provincial town	131	34,538	0.4%	Mapping & Census	2004
	Malanville	Provincial town	105	8576	1.2%	Mapping &Census	2004
Burkina Faso	Ouagadougou	Capital	8000	185,442	4.3%	Mapping &Census	2000–03
Cameroon ´	Yaounde	Capital	5600	252,210	2.2%	Mapping &Census	1997
Ivory Coast	Abidjan	Capital	6000	867,266	0.7%	Mapping & Census	2000
	San Pedro	Provincial town	500	139,525	0.4%	Mapping & Census	NA
	Bouake	Provincial town	300	116,738	0.3%	Mapping & Census	2000
	Korhogo	Provincial town	347	36,327	1.0%	Mapping & Census	2001
	Aboisso	Provincial town	289	32,500	0.9%	Mapping & Census	2004
	Daola	Provincial town	497	38,478	1.2%	Mapping & Census	2004
	Yamoussouka	Provincial town	245	40,177	0.6%	Mapping & Census	2004
Ghana	Accra-Tema	Capital	5000	457,587	1.1%	Mapping & Census	2003
	Sekondi-Takoradi	Provincial town	492	69,099	0.7%	Mapping & Census	2003
Niger	Niamey	Capital	11,249	427,680	2.6%	Mapping & Census	2004
East-African countries Ethiopia	Addis Ababa	Capital	12,453	599,886	2.1%	Mapping & Census	2002
	Nazareth	Provincial town	1172	40,098	2.9%	Mapping & Census	2002
Kenya	Kisumu	Provincial town	1374	45,158	3.0%	Mapping &Census	1997
	Busia, Mumias, Nzoia, Webuye (W. Province)	4 Provincial towns	1500	21,676	6.9%	Mapping & Census	1999
	Highway between Mombassa and Nairobi	Truck stops	2700	_	_	Mapping & Census	2004
South-African countries Zambia	Ndola	Provincial town	2288	94,761	2.4%	Mapping & Census	1997
	Chirundu, Livingstone, Chipata, Nakonde,	6 truck stops along the	1500	55,375	2.7%	Mapping & Census	2000

	Kasumbalesa, Kapiri Mposhi	Southern highways					
Madagascar	Diego-Suarez	Provincial town	2684	22,500	12.0%	Capture-recapture	2001
Asia India (Maharashtra)	Mumbai	Capital of State	14,108	2,974,320	0.5%	Mapping & Census	2001
	Thane	Provincial town	1335	306,549	0.4%	Mapping & Census	2001
	Pune	Provincial town	2632	629,582	0.4%	Mapping & Census	2001
	Sangli	District	1191	650,000	0.2%	Mapping & Census	2001
Nepal	Kathmandu	District	1657	162,203	1.0%	Mapping & Census	2001
	Bhaktapur	District	84	16,898	0.5%	Mapping & Census	2001
	Lalithpur	District	267	37,612	0.7%	Mapping & Census	2001
Indonesia	Aceh	Province	562	1,095,602	0.05%	Multiplier method	2002
	Sumatra Utara	Province	18,659	3,246,372	0.6%	Multiplier method	2002
	Sumatra Barat	Province	492 1, 1	184,834	0.04%	Multiplier method	2002
	Riau	Province	21,503	1,379,750	1.6%	Multiplier method	2002
	Jambi	Province	3360	671,192	0.5%	Multiplier method	2002
	Sumatra Selatan	Province	16,233	1,923,786	0.8%	Multiplier method	2002
	Bengkulu	Province	1853	436,121	0.4%	Multiplier method	2002
	Jawa Barat	Province	18,192	9,961,637	0.2%	Multiplier method	2002
	Lampung	Province	5398	1,876,940	0.3%	Multiplier method	2002
	Bangka Belitung	Province	726	250,965	0.3%	Multiplier method	2002
	Jakarta	Province	32,448	2,331,465	1.4%	Multiplier method	2002
	Banten	Province	7202	2,258,127	0.3%	Multiplier method	2002
	Jawa Tengah	Province	24,455	8,706,534	0.3%	Multiplier method	2002
	Jogjakarta	Province	4627	870,291	0.5%	Multiplier method	2002
	JawaTimur	Province	29,116	9,694,500	0.3%	Multiplier method	2002
	Kalimantan Barat	Province	3350	1,119,862	0.3%	Multiplier method	2002
	Kalimantan Tengah	Province	6410	517,267	1.2%	Multiplier method	2002
	Kalimantan Selatan	Province	2819	832,088	0.3%	Multiplier method	2002
	Kalimantan Timur	Province	13,021	683,740	1.9%	Multiplier method	2002
	Bali	Province	4304	878,378	0.5%	Multiplier method	2002
	Nusa Tengara Barat	Province	845	1,117,910	0.08%	Multiplier method	2002
	Nusa TengaraTimur	Province	377	1,066,044	0.04%	Multiplier method	2002
	Sulawesi Utara	Province	958	557,979	0.2%	Multiplier method	2002
	Sulawesi Tengah	Province	977	606,778	0.2%	Multiplier method	2002
	Sulawesi Selatan	Province	2614	2,245,021	0.1%	Multiplier method	2002
	Sulawesi Tenggara	Province	1103	507,507	0.2%	Multiplier method	

	Gorontalo	Province	696	232,282	0.3%	Multiplier method	2002
	Maluku	Province	1762	324,303	0.5%	Multiplier method	2002
	Maluku Utara	Province	1033	204,118	0.5%	Multiplier method	2002
	Papua	Province	9386	617,374	1.5%	Multiplier method	2002
Cambodia	Phnom Penh	Province	4727	170,404	2.8%	Census	2003
	Siem Reap	Province	674	35,473	1.9%	Census	2003
	Kandal	Province	308	17,198	1.8%	Census	2003
	Battambang	Province	696	42,093	1.7%	Census	2003
	Kaoh Kong	Province	375	8223	4.6%	Census	2003
	Prey Veaeng	Province	227	16,744	1.4%	Census	2003
	KrongPailin	Province	351	6116	5.7%	Census	2003
	Pursat	Province	135	17,533	0.8%	Census	2003
	Kampong Speu	Province	182	12,311	1.5%	Census	2003
	Kampong Chnang	Province	216	12,548	1.7%	Census	2003
	Kampong Cham	Province	305	13,534	2.3%	Census	2003
	Takeo	Province	191	11,735	1.6%	Census	2003
	Kampot	Province	146	10,012	1.5%	Census	2003
	Kratie	Province	138	23,205	0.6%	Census	2003
	Kampong Thom	Province	141	19,760	0.7%	Census	2003
	PreahVihear	Province	78	6318	1.2%	Census	2003
	SvayRieng	Province	63	6382	1.0%	Census	2003
	Stung Treng	Province	57	7081	0.8%	Census	2003
	Sihanoukville	Province	528	45,812	1.2%	Census	2003
	Bantey Mean Chey	Province	622	29,548	2.1%	Census	2003

Source: Vandepitte, J., et al., Estimates of the number of FSWs in different regions of the world. Sex Transm Infect, 2006. **82**(Suppl III): p. iii18–iii25.

2.2.4. Reasons behind entering in sex trade

There is historical, socio-cultural, economical variations and legal or policy framework which shape the global sex market. Women enter in this market for variety of reasons.

Poverty and financial benefits: Most sex workers start this profession as a source of their income due to their poverty, debt, low income which fails to meet their marginal lifestyles (28-30). This type of engagement sometimes referred as ‘survival sex’ (31). The financial importance or benefits is the basis of growing this sex market not only for FSWs but also having interest of other busenessmen or third parties who operate or carry this industries, such as- pimps, brothel owners etc (32, 33).

Homelessness and survival: Living on street or insecure places was identified as engaging sex profession (34, 35).

Drug and alcohol use: Dependency of drug and alcohol also push people to engage in commercial sex work (26, 36, 37).

Traditional or cultural reason: One Indian study demonstrated that there is a tradition where girls or women are dedicated to Gods or Goddesses in the temple for religious purposes and these women had to serve to deities as their wives or servants. They had to carry out different tasks of temple and one of those tasks included sexual activities to priests and patrons. The another name of this activity is "sacred prostitution" (38).

In addition violence, abuse, sexual harassment, coercion, sex trafficking, power exercise, social connection, family breakdown, to desire for wealth and social mobility are responsible of sex trade of women (37, 39-42).

2.2.5. Socio-economic status of FSWs

FSWs (FSWs) are a marginalized and highly stigmatized group in the society due to poverty, isolation, social exclusion, mental illness, addiction, coercion, discrimination and criminalization (42-45). Studies indicated that mean age of FSWs varied between 21 and 29 years (38, 44-47). The educational status was relatively low or illiterate (38, 46, 48, 49), although some exceptions had been seen among Chinese FSWs where a good proportion of FSWs attended middle and secondary school education (44). These underlying motives affect the sex worker's autonomy and ability to respond to health promotion messages (50).

Socio-economic conditions among Bangladeshi sex workers were very poor, varied by different geographical location and by types (Table 5).

Table 5: Socio-economic characteristics of FSWs in Bangladesh (2006-2007)

Characteristics	Brothel %	Street %			Hotel %		
	National (n=683)	Dhaka (n=438)	Chittagong (n=314)	Khulna (n=314)	Dhaka (n=337)	Chittagong (n=108)	Sylhet (n=151)
No education or schooling	59.7	17.9	10.8	38.2	22.1	33.6	19.2
Average monthly income in month (in BDT)	9051.2	5349.5	6658.4	3310.7	14879.4	15774.1	7352.9

Source: Azim, T., et al., *20 Years of HIV in Bangladesh: Experiences and way forward*. 2009, The World Bank, UNAIDS: Dhaka, Bangladesh.

2.3. Global situation: SRH status of FSWs (FSWs)

2.3.1. Contraceptive use

Studies from different countries suggest that contraceptive use among FSWs is poor, 17% to 98% FSWs used no method of contraception (51-55). Most of the studies report condom as being the main method of contraception, while a few studies describe relatively limited use of other modern methods (eg., oral pill, 18%; female sterilization, 15%; Intrauterine device, 15% injectable hormone 10.1% in Colombia) or non-barrier contraceptive use (eg., 12% in Moscow) (52, 56). Moreover, FSWs' high number of sex acts with multiple partners may require dual protection- (i) condom use for preventing sexually transmitted infection and (ii) any other method use to prevent unwanted pregnancies. Studies on dual use of contraceptives among FSWs in

Swaziland and Russia found that 10% to 12% of women used both a non-barrier modern method and a condom (24, 56).

2.3.2. Abortion experiences

Unwanted pregnancy is very common among FSWs and as a result, termination of pregnancies or induced abortion is prevalent throughout the world among FSW's community. Most studies showed the rate of life time abortion among this group of population which ranges from 30.1 % to 86.1% (52, 56-60). A few literature also demonstrated the abortion rate within a specific time period, for example, within a year which varies between 17.1% to 60% (54, 61) (Table 6).

A survey conducted in Ethopia showed that 59.6% of FSWs reporting unwanted pregnancies had abortions (61). In another Ethopian study, 14 of 30 qualitative interviews with FSWs had an abortion experience by using surgical method or medication in health facilities; Marie Stopes International clinics were most often visited. The participants were satisfied with abortion services in the facilities (62). In Thailand, trafficked FSWs (11.8%) were more likely to have experience of abortion during their time in sex work, as compared with 4.7% of non-trafficked women (63)

Table 6: Proportion of women having abortion experiences in different countries

Authors	Country	Sample size	Abortion periods	Abortion rate
The´ re` se Delvaux et al	Cambodia	588	2000-2001	21.9%
Uzbekistan et al	Uzbekistan	448	2003-2004	60%
Michael Elmore-Meegan et al	Kenya	475	Lifetime	86.1%
Christian T. Bautista et al	Colombia	514	Lifetime	53%
Catherine S. Todd et al	Afghanistan	471	Lifetime	30.1%

Michele R. Decker et al	Russia	143	Lifetime	58.0%
Alessandra S Chacham et al	Brazil	178	Lifetime	Miscarriage: 18% Abortion: 29%
Rishan Weldegebreal et al	Ethopia	346	2014	17.1%
Perla ME et al	Peru	202	Lifetime	68%

2.3.3. Pregnancy experiences

A study conducted by Feldblum et al in 2007 showed that pregnancy probability (cumulative) among FSWs enrolled in a condom intervention trial was 15% to 29% at different time points, such as- 6 months (15%), 12 months (23%) and 20 months (29%). According to the authors of this study, this pregnancy rate might be under reported than expected and possible reasons of under reporting included excluding second pregnancies reported by the FSWs, missing some pregnancy reports, such as illegal abortion and short term pregnancies duration, given the 6-month intervals between physical examinations. The pregnancy outcomes among 935 study participants of this study included childbirth (51%), spontaneous abortion (13%), induced abortion (13%) and 23% with missing pregnancy outcome. This study also showed that younger and women in Antananarivo were more likely to report high pregnancy rate whereas effective use of contraceptives, no unprotected sex and longer duration of follow up were related with low pregnancy rates among FSWs (64). Another study reported that among 37.3% of 471 FSWs had experienced an unplanned pregnancy (57).

In a research article written by Alessandra S Chacham et al in 2007 reported that 83% FSWs of a project participants in Brazil had become pregnant once in lifetime. Of them who had a pregnancy ever, the outcome were miscarriage (18%), abortion (29%) and

stillbirth (14%) (58). Result of a survey conducted among FSWs in Ethopia in 2014 showed that 50% of respondents had given birth and 13.7% had an abortion (62, 65).

Prevalence of pregnancy, especially, unwanted pregnancies among 346 FSWs was reported in an Ethiopian study where 33.2% of the respondents had pregnancy, of which 28.6% were unintended pregnancy. About 61.6% respondents mentioned that failure to use condom with steady partner was main reason behind the unwanted pregnancy. The outcome of these unintended pregnancies (n=99) included birth (34.3%), abortion (59.6%), current pregnancy (5.1%) and still birth (1.0%) (61). McDougal et al in their study identified high numbers of male clients in the previous month (*OR* = 1.1 per 30 clients, $p = 0.04$), history of abortion (a *OR* = 3.7, $p < .001$), and higher number of pregnancies (*OR* = 1.4 per additional pregnancy as significant factors of experiencing adverse pregnancy outcome (eg., miscarriage/ stillbirth) of FSWs who inject drugs (66).

A qualitative study conducted with 30 FSWs in Ethiopia showed that three of them were currently pregnant during interviews which were unintended. A client, a current and an ex-boyfriend were responsible for these three pregnancies. Eighteen of 30 FSWs were continued commercial sex while they were pregnant, even at their 7th or 8th month of pregnancies. They also mentioned about receiving some antenatal care (ANC) during pregnancy period and they had knowledge about sources of antenatal care. Those who sought ANC had a facility delivery while other had homebirth by unskilled personnel (62). However, there is lacking of depth information about ANC,

eg., number of ANC visit, number of women having ANC, number of women having home delivery in this study.

A study conducted in India showed that 83.7% (n=1011) FSWs had ever pregnant. Of 251 primiparious FSWs, 231 (92.0%) reported continuing sex work during pregnancy despite having pregnancy information. About 64.5% sex work until the third month of pregnancy and 20.7% continued until the third trimester. Of them (n=251), 57 (22.7%) FSWs reported a spontaneous abortion or a still birth. A total of 197 women were asked about place of delivery of which 110 women or 55.8% had facility delivery and remaining 87 (44.2%) had a home delivery. Among the nulliparas FSWs, 139 (55.4%) had an antenatal HIV testing during pregnancy (67).

A study conducted in Thailand showed that FSWs reporting sex trafficking experience (20.2%) were 3 times more likely becoming pregnant after their entry in the sex trade compared to non-trafficked FSWs (7.5%) (63).

A qualitative study titled, "FSWs' Experiences with Intended Pregnancy and Antenatal Care Services in Southern Tanzania" conducted by Sarah W. Beckham and colleagues described the experiences of FSWs with intended pregnancies and their antenatal care (ANC) seeking behavior. Through 30 in-depth interviews and 3 focus group discussions (FGDs), this study explored FSWs of Tanzania intended to become pregnant for gaining respect as mothers, avoiding stigma, building relationship with clients for financial security. Most of the time, pregnant FSWs sought ANC by hiding their occupation as sex workers. Rejection of healthcare providers to provide services

was common if the FSWs' husbands did not accompany while seeking care up to delivery period (68).

To understand the pregnancy and childbirth experiences of FSWs, meetings with FSWs of south Asia, sub-Saharan Africa, north Africa, North and South America, Europe, and southeast Asia were conducted by Brian Willis, Katherine Welch, Saki Onda (69). Findings of these meetings were presented through a panel at the Fourth Women Deliver Conference (May 16–19). The issues shared in this panel are given below:

Panel: Issues reported by FSWs during the initial meetings

- *In many communities mothers enter sex work primarily to feed their children.*
- *Most FSWs become pregnant and many have unsafe abortions resulting in morbidity and mortality. In North Africa, there were several reports of complications and deaths after taking a pill purchased on the street or "using a plastic stick."*
- *Pregnant FSWs often experience barriers to antenatal care and delivery, including discrimination by health-care workers who have "beaten" and "humiliated" them and treated them "worse than other pregnant women".*
- *In several meetings, women reported that pregnant FSWs are subjected to violence by clients and some are murdered.*
- *Many pregnant FSWs must work until they go into labour and some deliver in their home, bars, or street.*
- *Several deaths of pregnant FSWs have been reported, including the death of a female sex worker who gave birth in a latrine; her infant also died. Other FSWs reported the death of a colleague from bleeding due to "negligence" of the medical staff. One group of FSWs reported that 20% of the pregnant women in their community had died during pregnancy or childbirth in the past 3 years.*
- *Many FSWs must return to work within days or weeks after giving birth, limiting their opportunities to breastfeed.*
- *Suicides among pregnancy sex workers were reported along with antenatal and postpartum depression, indicating these are both risks for many FSWs.*

Adopted from: Willis, B., K. Welch, and S. Onda, *Health of FSWs and their children: a call for action.* The Lancet Global Health, 2016. **4**: p. e439.

2.3.4. STI/HIV

World health organization (WHO) reported that about 12% FSWs were found HIV positive during 2007 to 2011 from all over the world. The FSWs of Sub-Saharn Africa (37%), Eastern Europe (10.9%), Latin America and the Caribbean (6.1%), and Asia (5.2%) had substantial prevalence rate of HIV (70). Besides HIV, FSWs are attributable to millions of other STIs per annum which included syphilis, gonorrhoea, trichomoniasis, genital herpes, genital warts etc (71). India, the neighbor country of Bangladesh had high prevalence of HIV infection (eg., 0.31% OR 2.4 million), 38% of those HIV infected persons were female (72) (73). Self-reported data on reproductive health morbidities among FSWs of a recent study (2013) in India showed that FSWs suffered from abnormal vaginal discharge (31.6%), genital itching (3.4%), uterine mass/prolapse (3%) and painful intercourse (2.6%) (73).

2.4. Global situation: SRH(SRH) services for FSWs

2.4.1. Existing SRH services

Data collected through a systematic review showed that most of the SRH interventions for FSWs were located in Africa. The SRH services were largely focused on distribution of condoms, HIV testing and counseling, HIV prevention and curative services, antiretroviral therapy (ART), STI education, screening, and syndromic or aetiological management, general or primary health care services. This

review noted down about lack of termination of pregnancy services or other maternal healthcare services for FSWs (8).

2.4.2. Community based Drop-in-Centre (DIC) services

A drop-in-center (DIC), also known as “safe places” is a community-based HIV/AIDS prevention model (74, 75). These are sometimes only places for sex workers where they have easy access to healthcare and legal counseling including other direct services for their wellbeing (76). This is a participatory model of health service delivery which facilitates the active involvement of FSWs in designing appropriate program by providing them (FSWs) a safe place to get together for coherent exploration about their needs and experiences including increasing access to services (75, 76). This is a hired flat or rented rooms by health program which is decorated simply with following purposes (77):

- Use as a place for realization, socialization and holding group activities by sex workers
- Serve as a main venue for interaction between sex workers community and health program
- A place to help sex workers strengthen social bonds and form a sense of community
- A platform for community mobilization, training and organizing initiatives.

A recent study conducted among Canadian sex workers showed that uptake and acceptability of services through community-based DIC was very high where 60.3%

FSWs used the DIC services over three years of study period. Services utilized from the DIC included both medical and non medical services (Table 7) (78).

Table 7: Use of services by FSWs at DIC (n=330)

Types of services	No. (%)
Medical services	
Primary nursing care	93 (28.2)
Referral to a healthcare professional	43 (13.0)
Non-medical services	
Food	313 (94.8)
Make-up	205 (62.1)
Clothing	97 (29.4)
Shower	16 (4.8)
Counselor service	36 (10.9)
Peer-support/education program	23 (7.0)

Adopted from: Kim, S.R., et al., *Uptake of a women-only, sex-work-specific drop-in center and links with SRHcare for sex workers.* International Journal of Gynecology & Obstetrics, 2015. **128**(3): p. 201-205.

2.4.3. Integrated services

African Medical and Research Foundation (AMREF) implemented an integrated programme called Manisha in Kenya targeting FSWs including other risk populations to get sustained reduction in the prevalence of STIs/AIDs. The programme works with civil society organisations (CSOs), private sector organisations (PSOs) and the Government of Kenya structures and. The result of this study showed significant behavior change on targeted indicators among more than half (59.1%) FSWs (79).

A systematic review of 35 literatures also showed the improved outcome in all measures after integrating of SRH and HIV services. This study identified the driving factors that contribute in successful integration of services which were stakeholder involvement, capacity building, positive staff attitudes, non-stigmatizing services, and engagement of key populations. This article suggest continuing support and advocacy for implementation of integrating SRH and HIV services (80).

A study titled, "Integrating friendly SRHservices for young FSWs into the health system at district level in Zambia: perspectives of stakeholders" was conducted in 2012 in Zambia. The result of this study showed that the integration was possible due to effective sensitization of other staff in the integrated organizations on importance of SRH need of FSWs which facilitate to create friendly behavior of police and healthcare providers. Integration of SRH services were acceptable by the FSWs as they use queen mother's place ("*Queen mothers are older and retired FSWs who provide accommodation to younger FSWs and FSWs pay to queen mothers a percentage of their earnings*") as information hubs and service provision centers (81).

2.5. Global situation: Barriers in SRH services for FSWs

2.5.1. Barriers in service delivery

A study conducted among 292 medical students of 56 countries through on-line surveys showed that religious minded respondents were significantly more likely to show negative attitude to provide treatment to FSWs compared to those who did not identify themselves as religious (82). Ashar etal raised many points in their study on service delivery mechanisms for FSWs which included single versus integrated interventions, optimum or minimum requirements for services, different type of service provision based on priority etc. They also mentioned that lack of nationally or regionally co-ordinated projects for FSWs, lack of Government support were also key constraints to successfully implementation of intervention for FSWs (8).

A project report written by Natalya Timoshkina, Lynn McDonald, titled "Building Partnerships for Service Provision to Migrant Sex Workers" (83) identified barriers to

service provision and key recommendations on effective service delivery to migrant sex workers which are given in following table 7:

Barriers and key recommendations to implement services for FSWs

Barriers that hampers to implement services for migrant FSWs:

(1) difficulty accessing the population;

(2) difficulty building trust with the population;

(3) difficulty maintaining contact with the population;

(4) nocturnal lifestyle of the population;

(5) lack of funding for services targeting migrant sex workers;

(6) internal agency resistance to working with this population;

(7) difficulty providing safe environment for the population;

(8) lack of relevant professional expertise and cultural competence on the part of the service providers;

(9) lack of training opportunities for service providers interested in working with migrants involved in the sex trade;

(10) ideological differences between service providers; and

(11) lack of collaboration between service providers.

Key components suggested for effective service delivery to migrant FSWs:

(1) the ability to offer a wide range of useful services on a ‘one-stop’ basis (e.g., drop-in; health services; food; basic necessities; laundry; safe housing; referrals);

(2) the ability to provide services in a respectful, nonjudgmental manner;

(3) the ability to ensure safe physical environment for migrant sex workers, and to protect their confidentiality and privacy;

(4) having the support of sex workers themselves; and

(5) having a good reputation in the community

2.5.2. Barriers in care seeking

A study conducted by Phrasisombath et al in 2012 in Laos showed that more than a half of FSWs (53%) received RTI/STI services from drop-in-centres (DICs) and only 23% in public health facilities following 12% sought care from private hospitals. Long waiting hours, the location of clinic services either inconvenient or unknown were identified as main barriers to service utilization **(9)**. Results of a mixed method study conducted in Nepal in 2009 added that lack of confidentiality and discrimination held by health care providers, poor communication between service providers were the key barriers in seeking sexual health services **(10)**. Identification of negative attitudes by healthcare providers **(9-11, 84)** and stigma or shame or fear of exposure to the public **(10, 11)** as a sex worker were very common barrier to seek healthcare. A study conducted via individual interviews with 35 sex workers in Guatemala disclosed dissatisfaction with the quality of health services received due to mainly lack of medicines and scanty information **(84)**. Another study conducted in Canada among 252 street-based FSWs, reported that more than half (55.9%) of FSWs hide their profession to family, friends, home community because of stigma and around 50% had faced any barrier to getting access to health services in last six months **(61)**.

A review of 54 articles on utilization of services by minority group showed that "potential barriers occurred at three different levels: patient level, provider level and system level" (85). Our study also focuses on different dimensions of barriers occurrence, for example, international and national Donors' policy, Government support, perspective of programme implementers and service providers including reporting problems or barriers faced by FSWs themselves. Using knowledge that will be gathered through this study, recommendations will be generated which will guide decision makers not only improving existing programme but also design and implement future evidence based programme and policy.

2.6. Bangladesh: At a glance

The People's Republic of Bangladesh is one of the poor countries of South Asia. Its east, west and north is surrounded by India and southeast by Myanmar. There is the Chicken's Neck corridor which separate it from Nepal and Bhutan. To its south, it faces the Bay of Bengal. Bangladesh with its 147,570 km² area places eighth on most population in the world, with over 149 million people (1142.3 people per sq.km). Its capital city, Dhaka with more than 15 million people, located on the Buriganga River is the largest city in Bangladesh and one of the major cities of South Asia.

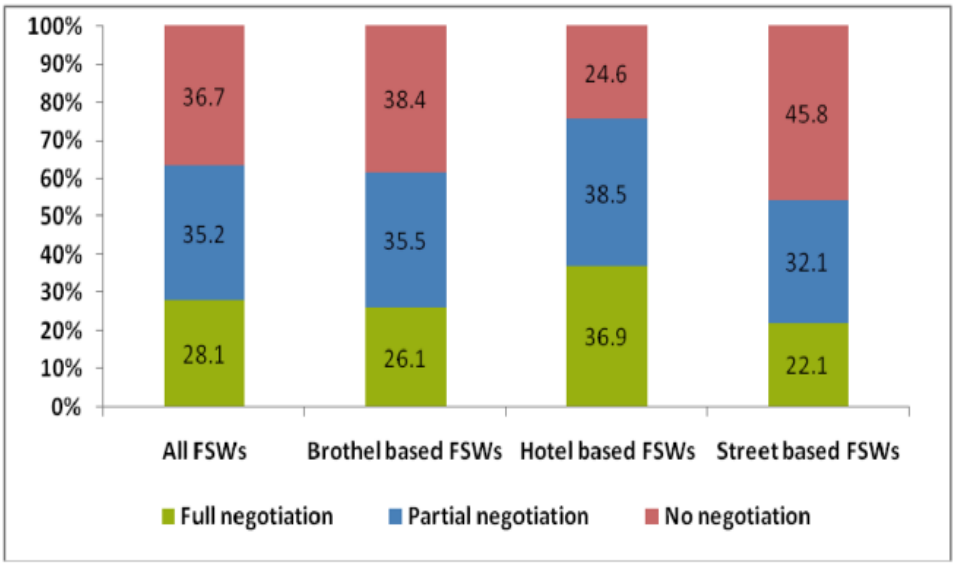
Figure 3: Map of Bangladesh

2.7. Bangladesh situation: SRH of FSWs (FSWs)

2.7.1. Contraceptive use

According to Unicef, about two-third of FSWs (67%) used a condom during their last sexual intercourse with their clients (86). Findings of a cross-sectional study, published in 2013 by Alam etal showed that consistent condom use in last seven days of interviews was very poor among brothel (16.2%), hotel based (21.7%), and street-based (4.5%) FSWs. This study added that only 28% FSWs had a negotiation for condom use with their clients (87).

Figure 4: Condom use negotiation by type of FSWs



Source: Alam, N., et al., Factors associated with condom use negotiation by FSWs in Bangladesh. Int J STD AIDS, 2013. **24**(10): p. 813–821.

2.7.2. MR/Abortion

Menstrual regulation (MR) and abortion are not legal in Bangladesh. However, unwanted pregnancy results a high proportion MR/Abortion each year. Therefore, Government of Bangladesh established a supportive network of MR/Abortion clinics

which carried out more than one a millions of pregnancy termination by MR or abortions (88). A recent study showed that 61% of hotel-based FSWs had become pregnant once or more and 51.4% reported using menstrual regulation (4).

2.7.3. Maternal healthcare

2.7.3.1. Maternal health situation in Bangladesh

According to Bangladesh Demographic and Health Survey in 2011, the fertility rate of reproductive aged women (15-49 years) is 2.3 births per women. Most women start childbearing very early where almost half of women give birth by the age of eighteen. About 68% women sought at least one antenatal care nationally where urban women (74%) are more likely to receive ANC from a medically-trained provider compared to rural women (49%). Only 29% women had an institutional delivery while 32% delivery attended by skilled birth attendant. Only 27% women received post natal care (PNC) (89).

Table 8: Maternal health status in Bangladesh

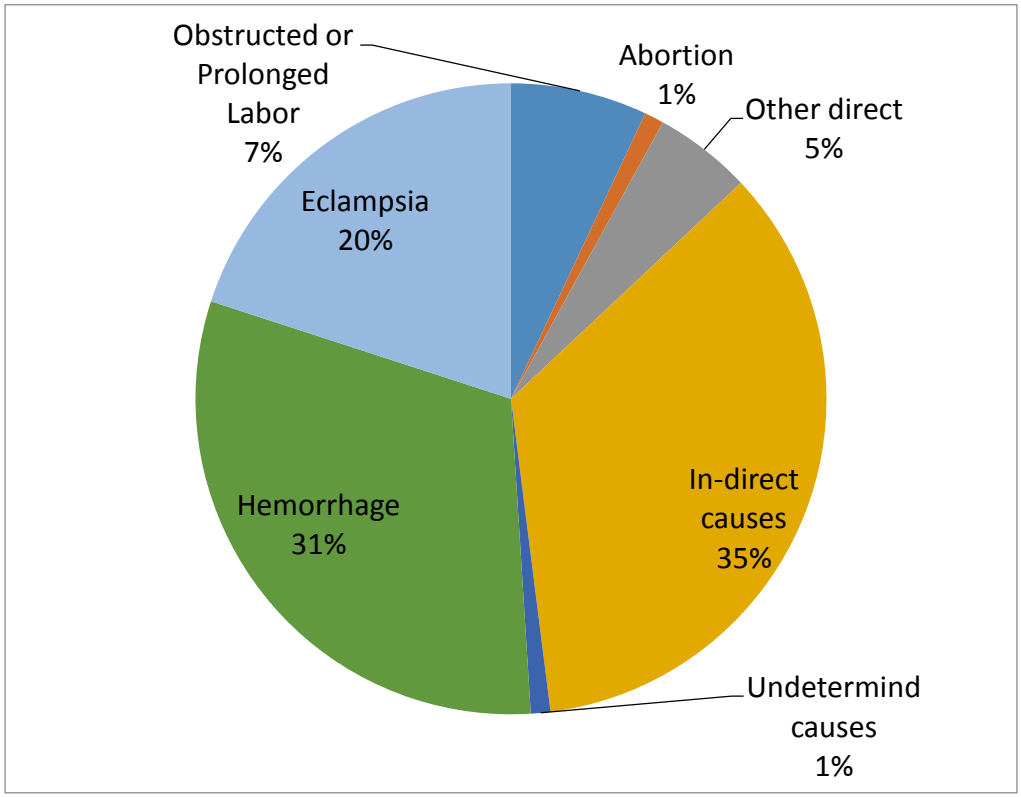
Characteristics	Urban (%)	Rural (%)	Total (%)
Total fertility rate (TFR)	2.0	2.5	2.3
No ANC	17	37	32
≥4 ANC visits	45	20	26
TT immunization	47	40	42
Institutional delivery	49	23	29
Home delivery	51	77	71
Skilled attendance during delivery	53	25	32
PNC of mother by medically trained providers	-	-	27

Source: Bangladesh Demographic and Health Survey 2014

2.7.3.2. Maternal mortality

About 194 maternal deaths per 100000 live births were reported in 2010 in Bangladesh where MDG sets its target to reduce maternal mortality ratio to 143 per 100,000 live births by 2015. The direct causes of maternal deaths included mainly Hemorrhage, Eclampsia, obstructed or prolonged labour and abortions (90).

Figure 5: Causes of Maternal Deaths: Bangladesh, 2010



Source: USAID, et al., Bangladesh Maternal Mortality and Health Care Survey 2010: Summary of Key Findings and Implications

2.7.3.3. Maternal health of FSWs

FSWs are most at risk of becoming pregnant because of majority being in reproductive age, with low negotiation power for condom use to prevent HIV as well as unwanted pregnancy and inability to get access to other form of contraceptives, and coupled with the high number of clients they get focus is drawn on meeting clients

needs rather than practicing safer sex. Moreover, FSWs are at particular risk for STIs (5) and STIs have been associated with a number of adverse pregnancy outcomes including spontaneous abortion, stillbirth, prematurity, low birth weight (LBW), postpartum endometritis, and various sequelae in the surviving neonates such as Gonoccocal conjunctivitis etc (6). However, some FSWs continue their pregnancy up to 28 weeks of gestation or more. One study demonstrated that 12% of brothel-based FSWs had a child less than one year of age but did not specify whether these children were the result of pregnancies from active sex work or they were active sex workers during these pregnancies (7).

2.7.4. HIV/STIs

Consistent with national HIV prevalence (<1%), surveillance data identified less than one percent FSWs with HIV in Bangladesh. The other sexual transmitted infections included N. gonorrhoeae, C. trachomatis, syphilis, T. vaginalis (Table 9) (5).

Table . Sexually transmitted infections in female sex workers

Sexually transmitted infections	Percentage positive			
	Brothels (22)	Brothels (23)	Hotels (24)	Streets (25)
Cervical				
N. gonorrhoeae	11.5	17.5	35.8	35.6
C. trachomatis	13.2	15.5	43.5	25
Vaginal				
Ever syphilis (TPHA+, RPR <1:8)	Not done	31.5	8.5	32.6
Active syphilis (TPHA+, RPR >1:8)	5.7	6.6	4.2	Not done
T. vaginalis	35	7.5	4.3	45.5
HSV2	Not done	Not done	34.5	62.5

2.7.5. Referral care

As limited health services are available by the interventions targeted for FSWs and no interventions had comprehensive package which included all components of SRH services, referral linkage with respective health institutions has been developed to support the reproductive health care needs of FSWs. Unpublished data of Save the Children showed that by the time of RCC, Phase 1 (December, 2009 to November, 2012), 2435 FSWs were referred for MCH and 1265 children of FSW were referred for EPI services. Till now, Save the Children (SCI) has an integrated, structured referral system in place. But program data can't say about information from service delivery end. Here it is a great opportunity to explore this important issue of essential service package of pregnancy and delivery care including barriers in referral system (91).

2.8. Urban Health system in Bangladesh

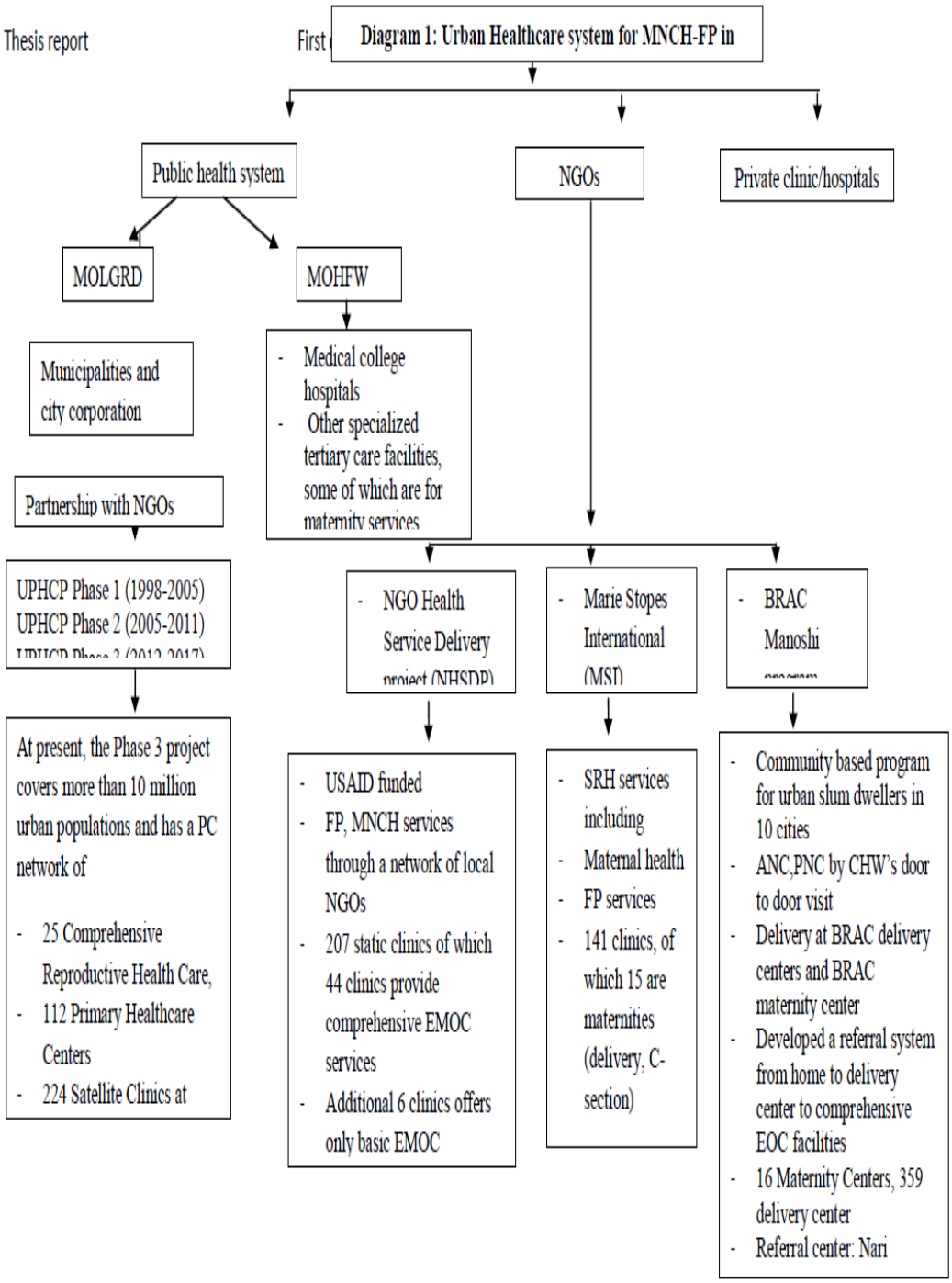
Health system in urban areas of Bangladesh can be stratified through having engagement of three types of actors, i) public ii) NGOs (not-for-profit) and iii) private for profit clinic/hospitals (Diagram 1) (46).

Public health system: Ministry of Local Government and Rural Development (MOLGRD) through municipalities and city corporations developed partnership with NGOs where Urban Primary Healthcare Project (UPHCP) receives sub-contract from Government to provide basic and comprehensive family planning, maternal, neonatal and child health services. There are also Medical College Hospitals and some specialized reproductive health, maternity and childcare hospitals available under the Ministry of Health and Family Welfare (MOHFW).

NGO services: NGO Health Service Delivery project (NHSDP), Marie Stopes International (MSI) and BRAC Manoshi Program are implementing FP, SRH and MNCH services with the help of different Donor fund.

Private clinic/hospitals: There are number of private clinic/hospitals are established in urban areas where relative high cost is charged for health services.

Figure 6: Urban Health system in Bangladesh



2.9. Bangladesh situation: Service delivery system for FSWs

At present health programmes for FSWs are largely focused on STI/HIV prevention interventions, with very limited services for their maternal health care needs. The GoB developed and approved a comprehensive policy on issues relating to HIV and AIDS and STIs (STIs) in 1997.

The National AIDS/STD Programme (NASP), within the Directorate General of Health Services (DGHS) of the Ministry of Health and Family Welfare (MoHFW), acts as a nodal body responsible for programming to address HIV issues in the country. Based on the principles of the 3rd national strategic plan (NSP) 2011-2015, " the various interventions will continue to provide care, support and treatment to all Most at risk (MARP's) population along with focused prevention services for the vulnerable populations"(92) To complement the efforts of the Government, a large number of NGOs are actively working on HIV and AIDS, primarily in prevention, and approximately 235 NGOs are interlinked through the STI/AIDS Network (5).

Since June 2008, with the stewardship role of National AIDS/STD Program (NASP), Save the Children (SCI) is one of the Principle Recipients (PR) of the RCC Grant who are responsible to implement the program for FSWs in Bangladesh through the implementing partners (SR/SSRs). Interventions under two packages (908 and 909) was expected to reach an estimated total of approximately 28,600 FSWs in 51 districts through 100 Drop in Centers (DICs) and 10 outreach offices. In areas of high priority depending on number of un-served FSW, local epidemiological trends of HIV and STI among FSW and injecting drug users, geographical vulnerability and field-level

experience, services are being providing through DICs on behavioural change education, free condoms, STI & general health service and effective referral services including voluntary counselling and testing (VCT) and maternal & child health (MCH) services (93).

2.10. Bangladesh situation: Barriers in service delivery and utilization

A study conducted among brothel based FSWs by Haq NL and Chowdhury ME in 2009 explained the barriers in service utilization in both service recipients and service delivery points of view. According to this study, the restrictions created by the 'Sordarnis' (a senior FSW who is like a leader of a group of FSWs) is main constraint of service receiver point on clinic service utilization. On the other hand reasons, the clinic side barriers included lack of medicines and inadequate supply of condoms in providing quality services. They also added that limited maternal and child health services including inadequate STIs service provision and lack of proper referral system were the main barriers to provide satisfactory services to FSWs (94).

2.11. Quality of care in healthcare

One of the core arguments for focusing on quality in healthcare in recent years is that where health systems, particularly in low-income countries should make maximum utilization of resources and expand health coverage, the process of improvement and scaling up needs to be based on sound local strategies for quality so that the best possible results are achieved from new investments. According to a World Health Organization's definition, the quality of healthcare can be done through making improvements in six areas or dimensions of service delivery which suggest that health

care should be effective, efficient, accessible, acceptable/patient-centred, equitable and safe. According to Bond and Thomas (1992), "increasing the quality of care may in fact become gradually associated with lower levels of satisfaction, since quality of care raises expectations". Moreover, one of the goals of health system is assessment of patient's non medical expectations which includes Dignity/respect , Privacy , Autonomy , Confidentiality , Prompt attention, Access to social support networks during care , Basic amenities, Choice of institution/care provider (95). Therefore, our study will also obtain information on quality of care both healthcare facilities' as well as service beneficiaries' perspective.

2.12. Role of policy briefs in healthcare

World Health organization recommended as **"**Evidence Briefs for Policy have the potential to improve the chances that policymakers will read, consider and apply the contents of research summaries when reaching policy decisions**" (96).** In Ethiopia, policy brief was developed to describe a health system problem, possible options to overcome the problem including implementation strategies of recommended options.

An example of their suggested options was given in the following table (97).

Table 1. Barriers and implementation strategies for option 1: Community-based health insurance

Barriers	Descriptions	Implementation strategies
The existing health service is inadequately equipped and staffed. Low quality health service.	Poor health service infrastructure and human power to provide the services to which insured people are entitled. (Facilities might find it difficult meeting raised demand by the insured).	• Accreditation should be introduced and strictly adhered to. • Improving facility readiness (improving the supply of medical, pharmaceutical and other equipments.) • Expand supply of covered services by investing in infrastructure and/or building clinical skills • Capacity building of existing staffs
Seasonality of income	Since rural communities are dependent more on agricultural activities, households earnings also vary seasonally making collection of premiums difficult	• A flexible premium collection mechanism could be introduced for the informal sector schemes, such as collecting premium from farmers during the harvest period (Omoruan 2009).
Geographically scattered settlements and mobility of pastoralists	The scattered settlement of agricultural households and the relative mobility of pastoralist may raise the costs of premium collection.	• "Door-to-door" (or hut-to-hut) outreach by insurance workers. • Enrolment through professional associations, unions, or cooperatives • Introducing flexible payment schedules

Source: Dibaba, A., et al. Improving Healthcare Financing in Ethopia. 2014

CHAPTER III
METHODOLOGY

3.1. Study design and site

A mixed method study comprising of qualitative and quantitative methods of data collection had been implemented between March 2015 and September 2016 in Dhaka city of Bangladesh where community based drop-in-centers (DICs) were operating for STI/HIV prevention intervention among FSWs. These DICs distribute condoms and lubricants, one to one or group counseling and other behavior change activities, HIV testing, and management of STIs (STIs) (5, 98). About 25 DICs are operating in Dhaka city targeting about 6,032 street, hotel and/or residence based FSWs through two consortiums, Bangladesh Women Health Coalition (BWHC) Consortia and Durjoy Nari Songha (DNS) consortia with the fund from Save the Children. We have collected all Dhaka based DIC information with size of DIC with the help of Save the Children Bangladesh. The details about the type of DICs by the number of FSWs targeted and the consortium under which they operate in different parts of Dhaka city is shown in Appendix 1A and 1B. Then we selected three of 25 DICs' coverage areas to conduct our study. The selection of DICs was depended upon different size of DIC which is described more in sampling section.

3.2. Study population

The study population included street, hotel and/or residence based FSWs of reproductive age (15-49 years). Women who were currently suffering with STIs/AIDs, excluded as it was not ethical to discuss with persons with illness for long hours. Self-reported responses by FSWs and DIC records were assessed to identify FSWs having STI/AIDS. It also included policy makers, researchers and key personnel of organizations which were currently providing services for FSWs including DIC staffs.

3.3. Study procedures

This study has two phases as follows:

Phase I: Collection and analysis of primary and secondary data

Phase II: Preparing policy brief using data collected in Phase-I

3.3.1. Phase I: Collection and analysis of primary and secondary data

Data collection techniques

Both quantitative and qualitative data collection techniques were employed in this study.

i) Quantitative data: Survey

Sample size:

Estimating A Single Proportion

To calculate a 95% confidence interval for proportion p with margin of error d use a sample of size

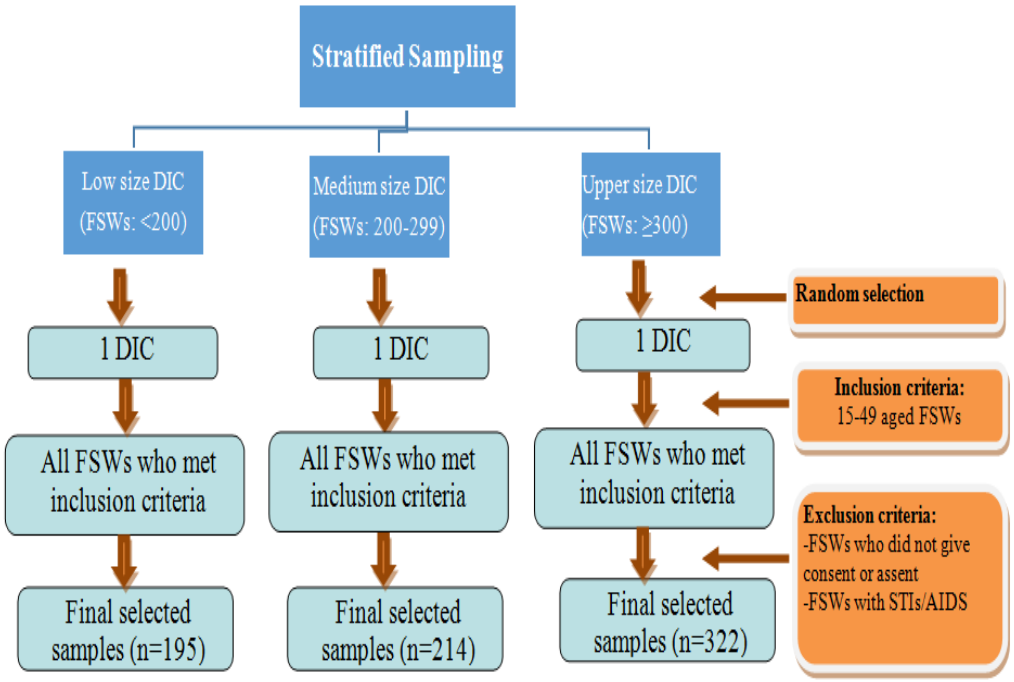
$$n = \frac{(1.96)^2 pq}{d^2}$$

where $q = 1 - p$.

Sample size had been calculated using above formula (99). As the proportion (p) of FSWs using SRH services were unknown, we considered 50% service utilization rate of FSWs, with 5% margin of errors and 95% confidence interval, the minimum required sample size was 384. Considering a design effect of 1.5, the proposed sample size was 576. Considering 20% non-availability and non-response rate, the required sample size was 720.

Sampling: The study sample (720) was collected using stratified sample methodology. Administrative data of DIC showed that number of FSWs in a DIC varied from 150-387 (please, see Appendix 1A and 1B). Based on these numbers of FSWs in DICs, three categories were created as low, medium and upper size of DIC. Low size of DIC included DIC with below 200 FSWs while DIC with 200-299 FSWs was considered as medium size DIC. The remaining DICs with ≥300FSWs were the upper size DICs. One stratum from each category of DIC was randomly selected and all FSWs in a selected DIC was interviewed to get our required sample of survey.

Figure 7: Sampling technique



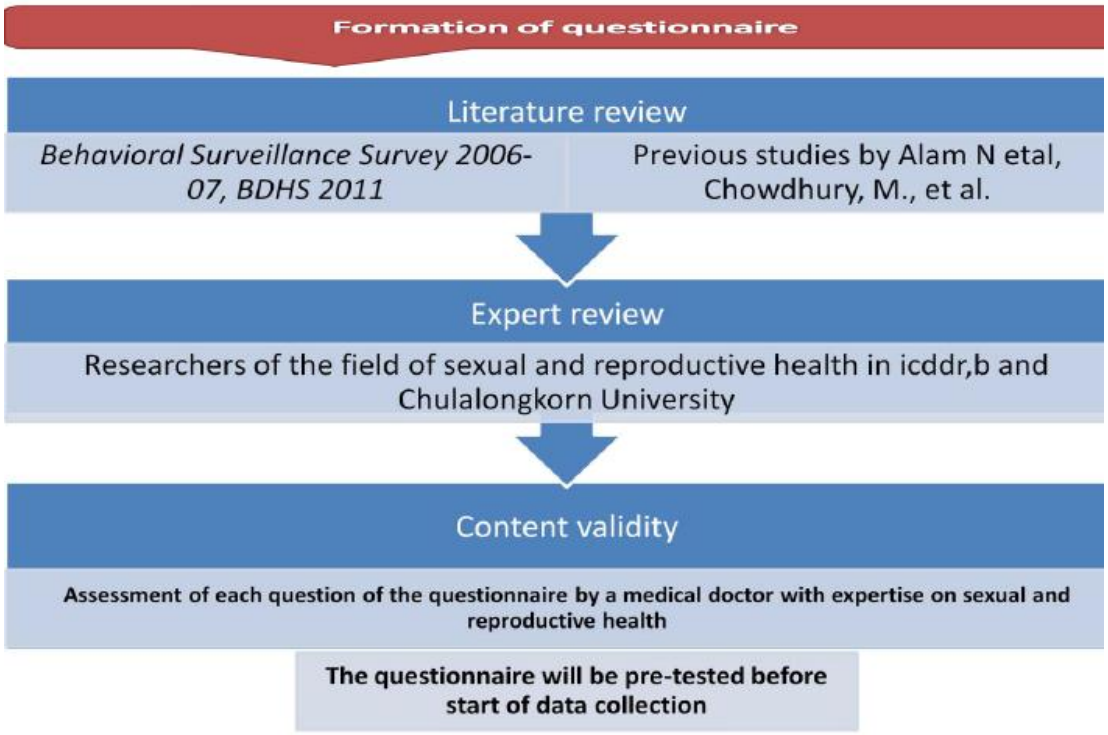
A list of FSWs with reproductive age was prepared from the selected DICs and given each identified women a unique number. The outreach workers of DIC have regular contact with FSWs while they distribute condom to them and conduct health education session with them. Help from DIC staffs, especially from outreach workers was got to

identify and locate selected FSWs for interviews. There are 3 to seven outreach workers available according to size of DICs. DIC distributed area wise identified FSWs to the outreach workers for providing STI/HIV prevention services. Therefore, we got help from all outreach workers of selected DICs of our study to reach to FSWs for interviews with the approval from Save the Children. Usually some FSWs are always available at DIC as it is their resting place during day time. The face to face interviews were conducted at DIC with all available listed women of three selected DICs. Moreover, the FSWs who were not available at DIC, they interviewed at field level (Parks, streets, residence setting where they are usually invited by pimps etc.) with the help of outreach workers. To maintain privacy, each conversation with respondents was conducted as one to one and if any other persons come at interview place, they were politely requested to wait in keeping a distance and when this interview will be ended, they were answered if they had any queries. If any woman stated during interview that she was currently suffering from any pregnancy related problems, she had given address of nearby health centre where pregnancy related problems were managed. If she needed accompany or any other support to get access of those services, efforts were taken to solve problems. Moreover, after completion of study, correct answers of the knowledge questions would be provided to DIC staffs so that they can discuss the right answers during their regular one to one or group session activities with FSWs. With their help, health education session would be organized to let the FSWs know about correct answers.

Questionnaire: A structured questionnaire (Appendix 2) was used to collect data. Literature review was done by the principal investigator to form the questionnaire which contains several sections on SRH issues, such as- contraceptive use,

MR/Abortion, maternal healthcare and STI/HIV. Respondents' SRH related experiences within last one year from day of interview were obtained. The socio-demographic information of respondents were also obtained through this questionnaire. Assessment of each question of the questionnaire by a medical doctor with expertise on SRH had been done for content validity**.** Moreover, it had been reviewed by experts in the field of SRH in icddr,b and Chulalongkorn University. Three researchers SRH related research experts were invited for alpha scoring on the questionnaire and got +1 score from each of them. This questionnaire was also field-tested before starting of interview. This questionnaire was pre-tested with FSWS in the DIC which would not be selected for survey data collection to finalize. A verbal consent was collected from the respondent before starting of an interview. Informed assent was obtained for the FSWs with below 18 year ages.

Figure 8 Formation of survey questionnaire



- **Validity of self-response data collected through questionnaire:** The FSWs could forget or hide any information about their healthcare practices. If any respondents mentioned about any STIs, maternal complications and used any type of services of formal healthcare, they were asked to show their health card or prescription. The sources of information (health card or self reported) of collecting data were recorded.
- **Recruitment, training and monitoring of data collection:** About four data collectors with at least twelve years of schooling and had previous experience on collecting quantitative data and/or experienced on working with FSWs was recruited. An intensive training was provided on the questionnaire, obtaining consent from respondents and data collection technique by the Principal Investigator. The interviewers were advised to check the whole questionnaire after

completion of an interview at the interview place. The study investigators monitored the interviews from a little distance without interrupting while data collectors were doing their interviews. They gave feedback to the data collectors later. The data collectors made cross-check their questionnaires every afternoon when all the team members returned office after daily data collection. We edited the questionnaires daily and provided feedbacks to the data collectors at field level. When data collection of a stratum (DIC) was completed, data were sent to data management team in Dhaka office. Data management team edited the filled in questionnaire and returned the questionnaires if any problem found. The women of problematic questionnaires were revisited to solve the problem.

ii) Qualitative interviews

- **Participant's recruitment:** A total of 23 IDIs with 14 FSWs and 9 service providers were conducted. The interviews were conducted until saturation of themes was obtained.

  A purposive sampling technique was employed to select participants for IDIs. FSWs with prior experience of SRH care services were invited to participate in the IDIs. The DIC service providers identified FSWs who were either using or not using modern contraceptive methods (oral contraceptive pills, condom, injectables, intra-uterine devices, female sterilizations), or FSWs who had had an abortion, given birth to a child, or had been seen for an STI in the previous year. These FSWs were invited for an interview. Similarly, we conducted nine IDIs with purposively selected service providers of all four DICs, which included three paramedics, three DIC-coordinators, two supervisors, and one outreach worker. Respondents were

selected according to availability and interest in participating in the interviews at a time convenient to them. Description of each type of qualitative data collection methods is given below.

a. **In-depth interviews (IDIs) with FSWs:** We requested to the DIC service providers to give a list of FSWs from their record who had experienced different types of SRH related problems, such as- had MR/Abortion/childbirth/STIs in past one year. Permission had been collected from the DIC authority as we got access to participants through DIC. With the help of DIC service provider's list, about 14 IDIs were conducted. Literature review had been done by the principal investigator to form the interview guideline (Appendix 3A). Assessment of the content of qualitative guidelines by expert qualitative researchers. The guideline contained issues on care-seeking practices and barriers faced during SRH needs.

Due to financial constraint, most of the in-depth interviews were conducted by principal investigator herself as she had sufficient training and experience on qualitative research. However, one experienced qualitative interviewer was recruited to assist for in-depth interviews and to prepare transcription of the interviews. She was given feedback on her work as regular basis by the principal investigator. The interviews were conducted at the DIC's when they were taking rest. Paramedic (healthcare provider) of DIC operates STI treatment services three days in a week in one DIC. We used paramedic's blank staff room in other three days when she (paramedic) did not come for maintaining privacy during interview. Each interview took one to three hours. An audio-recorder was used to record the interview but after completion of this study, all the record files

of interviews were deleted. As most of the FSWs were illiterate, data collectors read the whole consent paper to the participants. Informed verbal consents were taken from participants before starting of an interview. The interviews continued for maximum of 1 to 2 hours. Interview with pregnant FSWs were conducted in the DIC where place for rest and paramedics were available. Multiple attempts were taken to conduct the interview by section wise questionnaire if they felt discomfort to talk one to two hours at a time.

b. **In-depth interviews with DIC's service providers:** We conducted about 10 IDIs with paramedics, outreach workers, DIC health staffs to collect information on availability and need of SRH services and logistics, their experiences, the problems they faced, the strengths or weakness, and their suggestions. This information was obtained using a guideline (Appendix 3B).

Respondents were selected purposively according to availability and interest to participate in the interviews at their convenient place and time. An audio-recorder was used to record the interview but after completion of this study, all the record files of interviews were deleted. Written consent was taken from participants before starting of an interview. The interview continued for maximum of 1 to 3 hours.

iii) Other technique:

Workshop: One workshop was conducted with policy makers, researchers and key personnel of organizations which are currently providing services for FSWs including healthcare managers of DIC. The objective of this workshop was

- to share the identified barriers and SRH needs for FSWs which will be obtained through survey and in-depth interviews with FSWs and service providers
- to explore any limitations or barriers to implement existing policies
- to explore scope or need of formulating new policies
- to explore acceptable solutions to overcome barriers and recommendations to improve SRH services

A list of participants was prepared with the help of colleagues of Save the Children Bangladesh and icddr,b who were currently running projects targeted FSWs. icddr,b, an international research organization based in Bangladesh gave kind consent to provide necessary supports, eg., invitation to the Chair (Appendix 4A), use of Venue etc. to make the workshop successful. An invitation card (Appendix 4B) was prepared and distributed to the participants. The schedule of the Workshop progeamme was attached with the invitation cared. A total of 23 participants from Government health department, national and international organizations had been actively participated in the half-day Workshop. A quick presentation was shared on findings and recommendations of phase 1 data collection to receive comments and suggestions regarding recommendation. The participants were encouraged to share their opinions on barriers to deliver SRH services for FSWs, how to overcome challenges, possible new or existing policy options and recommendations to improve SRH services. One note takers kept notes on discussing issues. Three audio-recorders were kept at different points of the discussion table to record the interview and all recording files were deleted after completion of this study. The findings of the workshop were used to prepare the policy briefs which were helpful for the policy makers and SRH programme implementers to make decisions in future SRH programme.

3.3.2. Phase II: Preparing policy brief using data collected in Phase-I

According to WHO recommendation a policy brief format should include "one page with key messages, a three page structured summary and a 25 page report and a longer technical report" (96). We used this WHO instruction to write a policy brief which had a page of key messages, three pages with summary following a 25 page report (Appendix 5). We also considered the whole Dissertation document of this study as a longer technical report apart of policy brief format which was suggested by WHO. The topic of the briefs were selected according to analysis of findings in different angles, such as-contraceptive use, abortion, current pregnancy, maternal healthcare, STDs, barriers and satisfaction with formal healthcare. Number and topics of policy briefs were finalized based on findings of phase-I data.

3.4. Data analysis

Quantitative data:

Data were entered using SQL Server 2008 and ASP.net and statistical software SPSS version 20 (SPSS Inc., Chicago, IL, USA) was used for data editing and analysis. *Descriptive statistics were used to analyze service utilization rates. Each multiple responses in the questionnaires were recorded as an individual variable. The percent distribution of each variable was computed. The continuous variables were categorized observing frequency distribution. The standard or recommended responses on knowledge related options were considered as correct knowledge. Statistical software SPSS will be used for analysis. More specific descriptions on different types of SRH care is given below:*

Contraceptive use

Association between socio-demographic variables, contraceptive method use status and size of DIC were measured using Pearson's Chi-Square and Fisher's Exact test. In the questionnaire, we used 7 correct responses for the question of 'name of modern contraceptive methods' and 6 responses for the question on 'places of availability' which gave a maximum possible score of 13 by assigning '1' score for each correct response (**Table 2**). The mean score with standard deviation (SD) was calculated using descriptive statistics. Those who got at least a score of 7 were further categorized as having good knowledge and respondents with a score of 6 or lower were defined as having poor knowledge (100).

Abortion, maternal health and STDs

The percent distribution was computed to measure prevalence and service utilization rates on selected indicators of abortion, maternal health and STDs. The continuous variables were also categorized observing frequency distribution. To measure level of knowledge regarding maternal healthcare, the standard or recommended responses on knowledge related options were considered as correct knowledge and assigned 1 score for each correct response. Of 14 correct responses or scores, respondents having 0 to 5 scores was defined as poor knowledge group and respondents with 6 to highest scores was defined as good knowledge group (100).

Measurement of barriers in service utilization and satisfaction level with formal healthcare

Percent distribution on barriers in service utilization and level of satisfaction with formal healthcare was calculated using descriptive statistics. Formal healthcare was defined in this study as 'if a women sought care from recommended healthcare sources, such as-public, private for profit, private not for profit health facilities including healthcare by qualified providers from home'. A total of eight items were used to calculate satisfaction, which included dignity, privacy, autonomy, confidentiality, prompt attention, access to social support networks during care, basic amenities and choice of institution/care provider (95). A scoring system on the three points satisfaction scale was generated in the following manner: highly satisfied/moderately satisfied=2, satisfied=1, less satisfied/not satisfied=0. Based on these given scores, the minimum and maximum possible score was 0 and 16 respectively. The proportion of respondents who received at least 50% scores – that means, respondents having 9-16 scores – was also calculated using descriptive statistics. Furthermore, one way ANOVA analysis was done to measure the mean difference in satisfaction scores by different types of formal healthcare (eg., public, for-profit private, not for profit private or NGOs, home by skilled providers). All statistical significance levels were calculated with $p<0.05$.

Qualitative data analysis

Manual content analysis will be done. At first, the Bangla transcripts will be prepared and composed. A summary of subthemes and themes will be prepared developed through continuous reading of the transcripts and revising the contents. Data will be interpreted

according to theme and sub-theme. Verbatim will be presented to express the voice of interview participants.

Analysis of other data (Workshop)

A transcript was prepared by the note takers and summary interpretation was made by the investigators according to objectives. Verbatim was presented to express the voice of interview participants.

3.5. Expected outcome

This study is helpful for programme implementers who work in the area of reproductive health and STI/AIDs. This study is also helpful for safe motherhood programme to assess possible scope developing referral linkage to improve overall reproductive health of FSWs. The findings also provide evidence for policy makers to improve access to and use of SRH services among FSWs and to reduce morbidity and mortality related to SRH.

3.6. Ethical consideration

The Research Ethics Review Committee of Chulalongkorn University, Thailand approved this study (Protocol No: 178.1/58). Verbal consents were collected from the FSWs before starting of an interview. Informed assents were obtained for the FSWs below 18 year ages. Written consents were collected from the service providers.

3.7. Study investigators and experts

Ms Tasnuva Wahed, Dr. Anadil Alam (icddr,b, Bangladesh) Dr.Nazmul Alam (University of Montreal, Canada) are the study investigators. Tasnuva Wahed is the principal investigator, prepared draft proposal under the guidance of her Adviser Ratana Somrongthong. She is also responsible to day to day operation of this research study, such as-implementation of data collection and data entry activities, data analysis, report and manuscript writing under her Adviser. The other investigators had contribution on development of method and give their feedback on questionnaire, qualitative guideline. They would also take part in manuscript writing. Dr. Anadil Alam, Dr. Tasnim Azim of icddr,b and Ratana Somrongthong, Professor Surasak Taneepanichskul of Chulalongkorn University are also involved in this study as experts in SRH.

3.8. Work plan for activities (in months): 18 months

Activities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Literature reviews																		
Development of proposal with study design																		
Tool development																		
Approval of research review & ethical review committee																		
Recruitment & training of data collector																		
Data collection																		
Data management, entry, transcription, coding																		

Data analysis																		
Policy brief writing																		
Report writing																		
Draft report submission																		
Manuscript writing and submission to journal for publication																		
Thesis defense																		
Final report submission																		

CHAPTER IV
RESULTS

This section described the results of qualitative and quantitative methods of data collection including Workshop findings. A total of 731 reproductive aged (eg., 15-49 years) FSWs of 3 different sized DICs surveyed; 195 were from low size, 214 from medium size and 322 from large size DICs. Qualitative data collection included 14 in-depth interviews with FSWs and 9 in-depth interviews with service providers. One Workshop with 23 participants from national stakeholders was also conducted. Eight sub-sections or chapters were used to present the findings where first section (chapter 4.1) showed the characteristics of participants, second part (Chapter 4.2) showed the knowledge and use of modern contraceptive methods, third section (Chapter 4.3) described the MR/Abortion practices, fourth (Chapter 4.4) assessed the pregnancy and maternal healthcare practices, 5th chapter (Chapter 4.5) showed the STI experiences along with knowledge in HIV/AIDs, sixth chapter (Chapter 4.6) showed barriers in service utilization along with satisfaction with formal healthcare and seventh (Chapter 4.7) described the qualitative findings on barriers in service utilization by FSWs and barriers in service delivery by service providers, eighth or last chapter of result section shared the findings of Workshop.

Chapter 4.1: Characteristics of survey participants

4.1.1: Socio-demographic characteristics of respondents

Table 4.1.1A: Socio-demographic characteristics of respondents by type of DIC

Characteristics	Low size (n=195) %	Medium size (n=214) %	Large size (n=322) %	Total (n=731) %	p
Age group (in years)					
15-24	19.5	35.0	32.0	29.5	p<0.001
25-34	44.1	37.4	50.3	44.9	
35+	36.4	27.6	17.7	25.6	
Education					
No education	63.6	56.1	26.7	45.1	p<0.001
Primary	29.7	36.0	43.2	37.5	
Secondary and above	6.7	7.9	30.1	17.4	
Marital status					
Married	53.3	71.5	65.5	64.0	p<0.001
Unmarried	5.1	3.3	9.6	6.6	
Other**	41.5	25.2	24.8	29.4	
Place of residence					
Street/Park/Fly over/Stadium/Theater	67.7	23.4	1.6	25.4	p<0.001
Slum	20.0	64.0	6.5	26.9	
Residential area	12.3	9.8	91.9	46.6	
Rehabilitation centre of NGOs	0	2.8	0	1.0	
Daily income (in BDT[£])					
≤600	66.2	57.9	36.6	50.8	p<0.001
>600	33.8	42.1	63.4	49.2	
Monthly income (in BDT[£])					
≤10000	64.6	70.6	33.9	52.8	p<0.001
>10000	35.4	29.4	66.1	47.2	

*Multiple response
**Divorced/separated/widowed/husband is out of country
[£]1 US$ =79 BDT

Table 4.1.1Apresents the variations in distribution of different socio-demographic characteristics of FSWs by different size of DICs. Of the respondents 45% were 25 to 34 years old, 45% had no education and64% were married. Around half of the respondents had a daily income of 600 BDT (7.6 US$)or less per day. About 47% of them were living in residential while around one-fourth of them live on the street.

Table 4.1.1B: Mean distribution with other statistics of respondents on socio-demographic characteristics

Statistics	Socio-demographic characteristics			
	Age in years	Completed years of schooling	Daily income	Monthly income
n	731	731	731	731
Mean	28.5390	2.7045	758.6183	11953.3516
Median	28.0000	2.0000	600.0000	10000.0000
Mode	30.00	00	500.00	10000.00
Std. Deviation	7.05688	3.08291	418.94470	6813.67474

Of 731 interviewed, the mean age (SD) and completed years of schooling (SD)of the respondents were 28.53 (±7.05) years and 2.70 (±3.08)years respectively. The median of monthly income was 10000 BDT (126.56 US$) (Table 4.1.1B).

4.1.2: Sex trade related characteristics of respondents

According to **Table 4.1.2A**, FSWs at most of the low (91%) and medium (65%) sized DICs were street-based while 91% of large sized DICFSWs were residence-based. About 36.8% respondents were involved in sex trade for 3 to 7 seven years. The proportion of the new comers or involved with sex profession for two or less years were reported 31.3%. Many FSWs of low (39.5%) and medium (41.1%)size DICs reported having sex act with four to five sex partners per day while about 41.3% of large size's

FSWs mentioned having sex with 1 to three partners per day. The majority (71.4%) of the FSWs were engaged in sex act for 4 or more times per day.

Table 4.1.2A: Sex trade related characteristics of respondents by type of DIC

Characteristics	Low size (n=195) %	Medium size (n=214) %	Large size (n=322) %	Total (n=731) %	p value (Chi-square test)
Single vs multiple settings based sex workers					
Single	72.3	71.0	84.8	77.4	p<0.001
Multiple	27.7	29.0	15.2	22.6	
Type of sex workers*					
Street based	91.3	65.0	3.4	44.9	p<0.001
Hotel based	27.7	37.4	22.0	28.0	p=0.001
Residence based	21.5	31.3	91.0	55.0	p<0.001
Duration of involvement in sex work (in years)					
0-2	20.0	25.7	41.9	31.3	p<0.001
3-7	29.2	42.5	37.6	36.8	
≥8	50.8	31.8	20.5	31.9	
Number of clients entertained per day					
1-3	28.7	38.3	41.3	37.1	p=.008
4-5	39.5	41.1	32.0	36.7	
>=6	31.8	20.6	26.7	26.3	
Number of sex act per day					
1-3 times	22.1	35.0	28.3	28.6	p=.006
4-5 times	36.9	39.7	36.0	37.3	
>=6 times	41.0	25.2	35.7	34.1	

Table 4.1.2B: Mean distribution with other statistics of respondents on Sex trade related characteristics (n=731)

Statistics	Sex trade related characteristics		
	Duration of involvement in sex work	Number of client entertained per day	Frequency of having sex per day
Mean	6.0465	4.7579	5.2886
Std. Deviation	5.26821	2.67309	2.77565

On an average, six years (±5.26) of involvement in sex profession was found. They had sex act most often with 5 times and 5 persons per day (Table 4.1.2B).

4.1.3: Reproductive health related characteristics of respondents

Table 4.1.3A: Reproductive health related characteristics of respondents by type of DIC

Characteristics	Low size (n=195) %	Medium size (n=214) %	Large size (n=322) %	Total (n=731) %	p value (Chi-square test)
Number of pregnancy in lifetime (Gravida)					
0	8.2	6.5	12.1	9.4	p=.036
1-2	37.9	41.6	45.3	42.3	
3 or more	53.8	51.9	42.5	48.3	
Number of childbirth in lifetime (Para)					
0	17.4	11.7	19.6	16.7	p=.052
1	23.6	25.7	29.2	26.7	
2	29.7	27.1	27.0	27.8	
3 or more	29.2	35.5	24.2	28.9	
Number of MR/Abortion in lifetime					
0	54.0	55.6	54.3	54.7	p=.036
1	28.7	28.0	28.3	28.3	
2 or more	16.9	16.4	17.4	17.0	

Table 4.1.3A showed that about half (48.3%) of the FSWs had become pregnant in three or more times in their life time. Only 16.7% respondents never gave childbirth in their life. About 45.3% respondents mentioned that they experienced MR/Abortion at least once in their life.

Chapter 4.2: Knowledge and use of modern contraceptive methods

Table 4.2.1: Knowledge on name and places of availability of modern contraceptive methods (n=731)

Characteristics	Assigned score for correct answers	%
Knowledge on name of contraceptive methods*		
Oral Pill	1	98.0
Condom	1	100.0
Injectables	1	90.4
IUD	1	38.2
Implant	1	62.1
Female sterilization	1	34.7
Male sterilization	1	32.4
Places of availability of contraceptive methods*		
Community Health Workers	1	38.7
Drug shops	1	86.0
Public health facilities	1	38.4
Private for profit health facilities	1	20.5
Private NGO health facilities	1	57.2
Drop-In-Centre (DICs)	1	56.5
Total given score	13	
Total mean score with SD	7.53 ± 1.738	

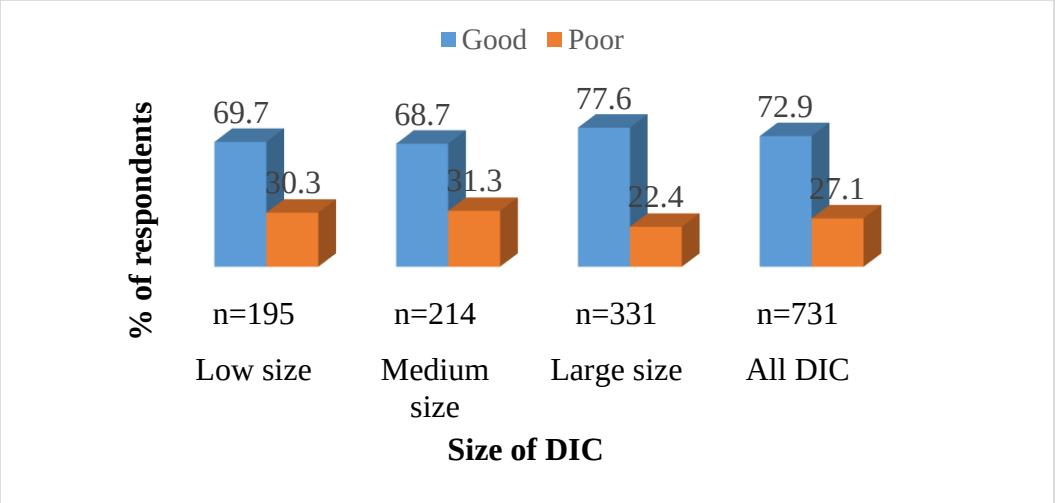
* Multiple response

4.2.1A. Knowledge of contraceptive methods

All FSWs knew the name of condom as a contraceptive method. Oral pill (98%) and injectables (90%) were known to almost all women. Nearly 61% women also knew about implant while about one-third mentioned IUD (38%), female (35%) and male sterilization (32%), respectively. The majority of women had knowledge that contraceptives are available at local shops (86%). Almost similar proportion of women knew that NGO health facilities and community based DICs are the places where contraceptives can be obtained. Public health facilities as a source of contraceptive

services were known to only about one-third of women. On an average, respondents got 7.53 scores on knowledge with a standard deviation of ±1.738 (**Table 4.2.1**).

Figure 4.2.1B.: Level of knowledge on contraception among respondents by size of DIC



[@]respondents with score≥7 is considered as having good knowledge and respondents with score≤6 is considered as having poor knowledge

Figure 4.2.1B.showed level of knowledge based on achieved knowledge scores in all three DIC's participants. The respondents of large DIC (77.6%) had better knowledge compared to other two DICs (69.7%, 68.7%). Overall, about 73% of FSWs had good knowledge.

Table 4.2.2: Status of modern contraceptive methods use among participants who were not currently pregnant by size of DIC (n=665)

Contraceptives	Size of DIC				p value (Chi-square test)
	Low size	Medium size	Large size	All DICs	
Any modern methods	94.9	85.3	85.9	88.1	.005
Oral pill	10.7	18.8	28.3	20.9	.000
Condom	84.7	71.7	62.6	71.1	.000
Injection	11.3	24.1	14.1	16.2	.002
Any short term method (oral pill or condom or injection)	93.8	93.7	88.6	91.4	.059
IUD	2.8	0.5	1.3	1.5	0.204[$]
Implant	6.2	4.2	4.0	4.7	.518

Contraceptives	Size of DIC				p value (Chi-square test)
	Low size	Medium size	Large size	All DICs	
Female sterilization	5.1	7.3	2.4	4.5	.032
Any long acting or permanent method (IUD or implant or female sterilization)	14.1	12.0	7.7	10.7	.072
Dual protection (condom plus any other modern methods)	22.6	27.2	17.8	21.8	.048

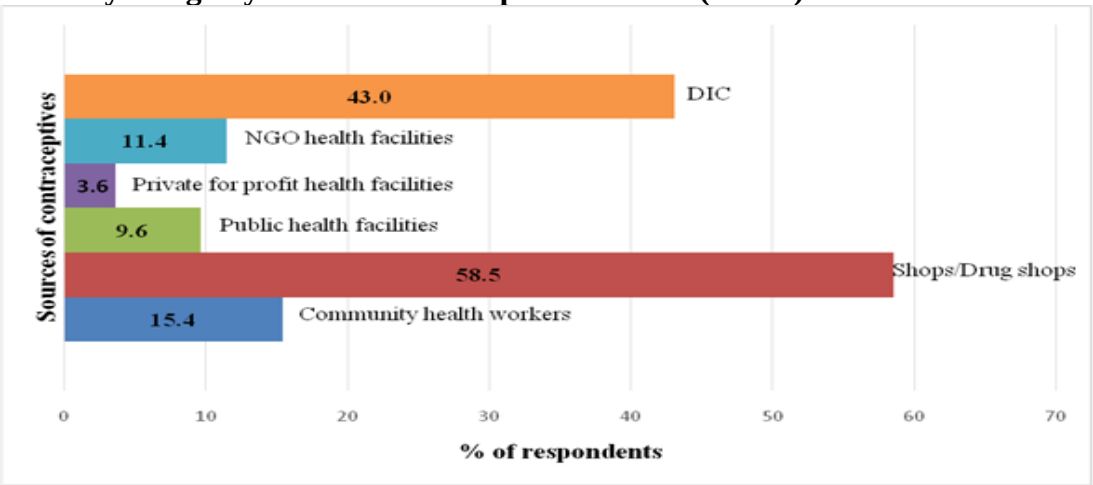
[$]Fisher's Exact test

4.2.2. Status of contraceptive use

The status of modern contraceptive use of FSWs is shown in **Table 4.2.2**. Approximately 88% of 665 FSWS were currently using any modern methods of contraceptives. Greater proportions (91%) of FSWs were using short acting methods, condom (71%), oral pill (21%) and injection (16%). The reported use of long acting and permanent methods (LAPM) - Intra-uterine device (IUD) (1.5%), implant (4.7%) or female sterilization (4.5%) was very low (11%).

Interestingly, the smaller the size of the DIC, the higher the reported condom use - low size (84.7%), medium size (71.7%), and large size (62.6%). The use of dual protection was only 22%.

Figure 4.2.3.: The sources of contraceptives among respondents who were currently using any modern contraceptive methods (n=586)

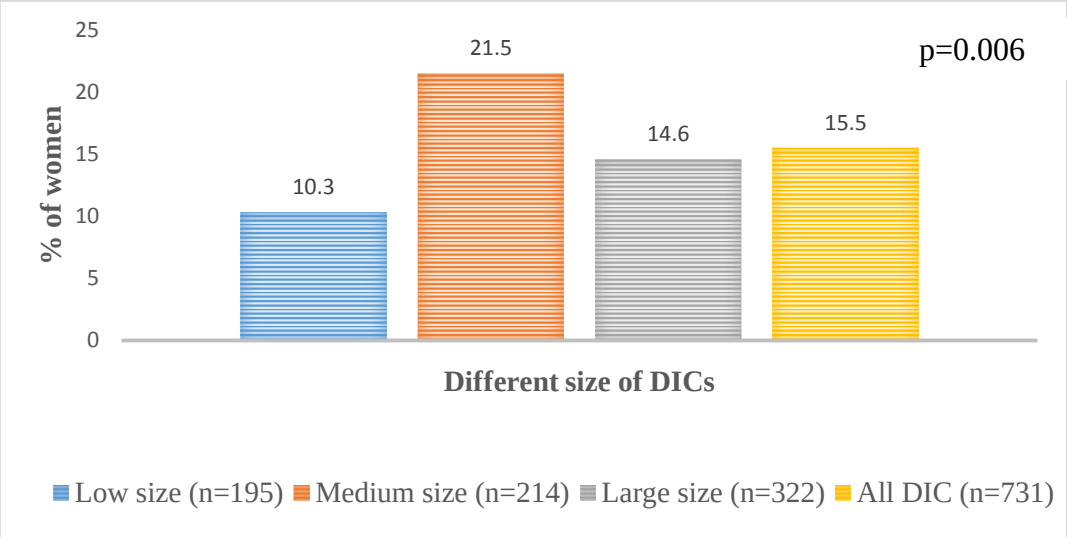


4.2.3. Sources of Contraceptive services

Local shops (58.5%) and community based DICs (43%) were the main places where FSWs received contraceptives services. A smaller proportion of women received these services from community health workers (15.4%), NGO health facilities (11.4%), public health facilities (9.6%) and private for profit health facilities (3.6%) **(Figure 4.2.3.)**

Chapter 4.3: Menstrual regulation (MR)/Abortion experiences

Graph 4.3.1: Proportion of women having MR/Abortion in last one year



4.3.1. Prevalence of MR/Abortion

The above graph (**Graph 4.3.1**) showed that 113 of 731 FSWs or 15.5% of total FSWs surveyed in all three DICs reported having an MR/Abortion in last one year. The proportion of women with reported MR/Abortion experiences was significantly varied in different sizes of DICs ($p<0.01$).

Table 4.3.2: Management of MR/Abortion among FSWs who reported having an MR/Abortion in last one year (n=113)

Characteristics	**%**
Type of management of MR/Abortion*	
MR by vacuum aspiration	47.8
D & C	31.0
Allopathic medicine	35.4
Herb/spiritual/eating pineapple	5.3
Areas of management of MR/Abortion*	
Within their locality (In Dhaka city)	74.3
Outside of their locality (In Dhaka city)	18.6
In native village/outside Dhaka city	8.8
Places/sources of management of MR/Abortion*	
Public health facilities	23.9
For profit private health facilities	35.4

Characteristics	%
Not for profit private (NGO) facilities	15.0
Home by skilled providers	9.7
Drug shop/Pharmacy	16.8
Home by unskilled provider/self/relatives/neighbor	15.9

*Multiple response

4.3.2. Management of MR/Abortion

Menstrual regulation through manual vacuum aspiration (47.8%) and Dilation and Curettage (D & C) (31%) procedure were commonly used for management of MR/Abortion. However, about one-third respondents (35.4%) used medicine for having an abortion. About three-fourth (74.3%) of the FSWs sought care within their locality in Dhaka city and about one-fifth (18.6%) sought outside of their locality in Dhaka city. The remaining 8.8% went to their native village or outside of Dhaka city to have an MR/Abortion. Private health facilities (for profit) (35.4%) was the first sources of care, followed by public health facilities (23.9%) as second places for care seeking. NGO facilities (15.0%), Drug shop/pharmacies (16.8%) and home by unskilled providers (16.8%) were used by almost same proportion of respondents. About 9.7% respondents sought care from home by skilled providers **(Table 4.4.2)**.

Table 4.3.3: Management of MR/Abortion related complications (n=65)

Characteristics	%
Suffered from any complication after having an MR/Abortion (n=113)	
Yes	57.5
No	42.5
Type of complications suffered* (n=65)	
Excessive bleeding	49.2
Lower abdominal pain	40.0
Severe weakness	43.1
Excessive anaemia	12.3
Other (blurry vision/STIs/foul smelling discharge/incomplete abortion)	24.6

Characteristics	%
Type of providers whom sought for management of complications* (n=65)	
Qualified doctor	35.4
Nurse	13.8
Paramedic/Family Welfare Visitors (FWVs)	26.2
Drug sellers	18.5
No one	12.3

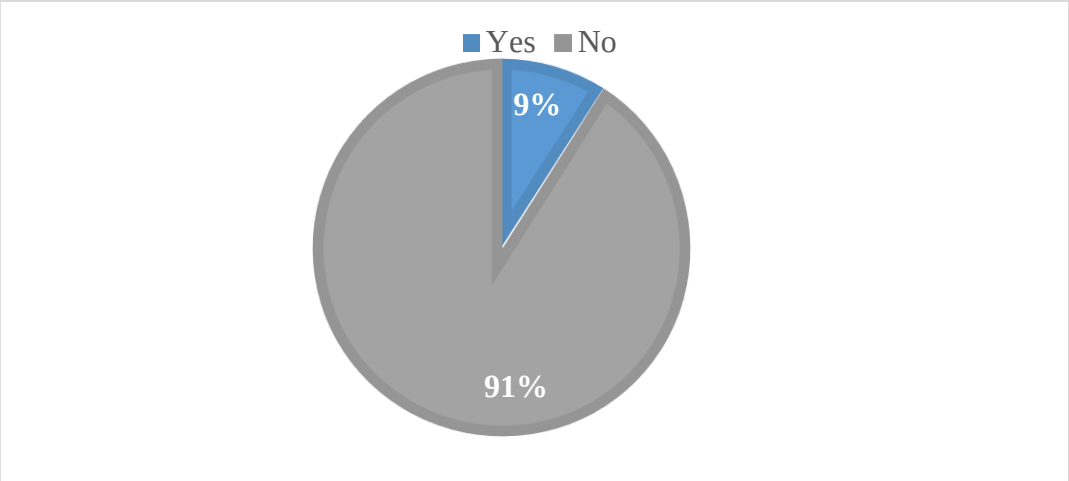
* Multiple responses

4.3.3. Management of MR/Abortion related complications

Of 113 FSWs having an MR/Abortion, 57.5% reported any complications after MR/Abortion. About half (49.2%) of them (n=65), were suffered from excessive bleeding. Lower abdominal pain (40.0%) and severe weakness (43.1%) were also reported by a good proportion of respondents. About one-fourth (24.6%) FSWs had blurry vision or STIs (STIs) or foul smelling discharge or incomplete abortion. Qualified doctors (35.4%) and paramedic/family welfare visitors (26.2%) were mostly cited healthcare providers who managed MR/Abortion-related complications of FSWs. However, 18.5% respondents sought treatment from drug-sellers and 12.3% did not seek any treatment (**Table 4.3.3**).

Chapter 4.4. Pregnancy and maternal healthcare practices

Figure 4.4.1: Prevalence of current pregnancy among FSWs (n=731)



4.4.1. Prevalence of current pregnancy

Graph 4.4.1.showedcurrent pregnancy status among respondents which indicated that nine percent of 731 FSWs were currently pregnant at the time of interview.

Table 4.4.2: Characteristics of pregnancy among FSWs who were pregnant at the time of interview (n=66)

Characteristics	**%**
Pregnancy confirmation	
Urine test by laboratory	10.6
By pregnancy strip	51.5
Perceptions of self/family/traditional birth attendants	31.8
By skilled healthcare providers	6.1
Current stage of pregnancy	
1st trimester (0-3 months)	36.4
2nd trimester (4-6 months)	34.8
3rd or last trimester	28.8
Plan about current pregnancy continuation	
There was no plan at till date	12.1
Would continue the pregnancy	75.8
Termination of pregnancy	12.1

4.4.2: Pregnancy related characteristics of FSWs

Of 66 pregnant women, 51.5%, 10% and 6% were confirmed their pregnancy through pregnancy strip, urine test and skilled health provider's checkup respectively.Although 36.4% of the respondents were at first (0-3 month) stage of pregnancy, about 34.8% (2^{nd} trimester) and 28.8% (3^{rd} trimester) were found at advance stages of pregnancy. About three-fourth (75.8%) of the respondents had a plan to continue the pregnancy while about 12% had planned to terminate the pregnancy **(Table 4.4.2)**.

Table 4.4.3: Care seeking of FSWs who had a plan to continue their pregnancy at the time of interview (n=50)

Characteristics	**%**
No of visit to a health provider	
0	26.0
1	34.0
2	22.0
3	10.0
≥4	8.0
Type of healthcare providers (n=42)	
Qualified doctors	54.8
Paramedic	42.9
DIC healthcare providers	9.5
Other community healthcare providers (NGO)	11.9
Other (Nurse/SACMO/HA)	9.4
Plan on place of delivery (n=50)	
Home	12.0
Health facilities	50.0
No plan	38.0
Sex trade status in current pregnancy (n=50)	
Continue sex trade	48.0
Did not continue sex trade	52.0
Reasons of continuing sex trade in pregnancy (n=24)	
Willingly as a source of regular income	95.8
Forcedly by clients	4.2

4.4.3.: Care seeking practices during current pregnancy

Of 50 FSWs having a plan to continue current pregnancy, 26% did not visit a healthcare provider while 34% visited only once. However, about 40% made two or more visits to a health provider during this pregnancy. Forty eight percent respondents were continuing their sex trade in spite of their current pregnancy and the main reason was earning as a regular source of income (**Table 4.4.3**).

Table 4.4.4. Knowledge on availability of maternal healthcare among FSWs who are not currently pregnant (n=665)

Characteristics	**Given score**	**%**
Type of maternal health services available		
Basic antenatal care by qualified health providers	1	78.0
Basic delivery care by qualified health providers	1	71.1
Basic postnatal care by qualified health providers	1	29.3
Emergency obstetric care by qualified health providers	1	52.9
Diagnostic services	1	7.8
Services by traditional birth attendants	0	12.8
Services by unqualified allopathic practitioners/drug sellers	0	28.4
Services by spiritual healers	0	1.1
Other (eg., Doctors come at Park)	1	0.5
Don't know	0	2.7
Places of maternal health services availability		
Own house by skilled provider	1	32.9
Public Medical College Hospital	1	34.0
MCWC	1	14.3
Private Medical College Hospital	1	10.7
DIC	1	27.2
NGO	1	71.9
Private clinic	1	46.3
Other (eg., Skilled providers' house/other Govt. hospitals)	1	9.4
Drug shops/Pharmacy	0	10.5
Don't know	0	2.0
Total given score	14	
Total mean score with SD	4.85±1.73	
Lowest score	0	
Highest score	9	
Good knowledge (≥6 score)		34.1
Poor knowledge (0-5 score)		65.9

4.4.4. Knowledge on availability of maternal healthcare

More than seventy percent respondents knew that basic antenatal care (78.0%) and basic delivery care (71.1%) services by qualified healthcare providers are available for care of pregnant women. About 53% also had knowledge on availability of emerging obstetric care. However, a little proportion of respondents could mention about availability of basic postnatal care by qualified health providers (29.3%) and diagnostic services (7.8%). About 28% respondents incorrectly knew that maternal health services are available from unqualified allopathic practitioners/drug sellers. Regarding places where maternal health services are available, not for profit private (NGOs) (71.9%) and for profit private clinic (46.3%) are cited by most of the FSWs. Surprisingly, availability of maternal health services at public health facilities (eg., Public Medical College Hospital, MCWC) was not known to many FSWs. Of highest 13 scores, on an average, each FSWs attained 4.85 scores with a standard deviation of ±1.73. By categorizing the knowledge scores, 65.9% respondents revealed having poor knowledge who had 0-5 scores and only 34.1% had good knowledge gaining ≥6 score (**Table4.4.4.**).

Table 4.4.5: Antenatal care of FSWs who had a childbirth in last one year

Characteristics	**%**
Had a delivery in last one year (n=731)	8.3
No of visit to a health provider during pregnancy (n=61)	
0	8.2
1	9.8
2	29.5
3	24.6
≥4	27.7
Type of healthcare providers who were visited (n=56)	
Qualified doctors	55.4
Nurse	32.1

Characteristics	**%**
Paramedic	44.6
DIC healthcare providers	7.1
Other community healthcare providers (NGO)	10.7
Other (SACMO/HA/FWA)	7.1
Suffered from any pregnancy complications (n=61)	
Oedema	24.6
Headache	24.6
Fever	4.9
High blood pressure	6.6
Excessive bleeding	41.0
Lower abdominal plain	14.8
Severe anaemia	16.4
Severe weakness	60.7
Blurry vision	26.2
UTI	4.9
STI	13.1
Other (eg., Convulsion/breathing problems/uterus prolapsed/diabetes)	9.8
No complication	1.6

4.4.5: Antenatal care of FSWs who had a childbirth

Of 731 FSWs interviewed, 61 (8.3%) reported having a childbirth within a year. These 61 women were asked about their antenatal care practices during pregnancy. Data showed that only 8.2% did not make an ANC visit but about one-fourth (27.7%) visited recommended four or more visits. Qualified doctors (55.4%) and paramedics (44.6%)were most common healthcare providers who were visited for ANC. All but one respondents mentioned having a complications during pregnancy where severe weakness (60.7%), excessive bleeding (41.0%), blurry vision (26.2%), headache (24.6%) were frequently reported.About 13% respondents reported suffering from STIs during pregnancy **(Table 4.4.5)**.

Table 4.4.6: Delivery care of FSWs who had a childbirth in last one year (n=61)

Characteristics	**%**
Areas of childbirth	
Within their locality (In Dhaka city)	80.3
Outside of their locality (In Dhaka city)	8.2
In native village/outside Dhaka city	11.5
Places of trial for childbirth*	
Home	55.7
On street/Park (Place of residence)	9.8
Public health facilities	16.4
Not-for-profit private health facilities (NGO)	32.8
For profit private health facilities	16.4
Places of childbirth	
Home	36.1
On street/Park (Place of residence)	3.3
Public health facilities	16.4
Not-for-profit private health facilities (NGO)	27.9
For profit private health facilities	16.4
Type of birth attendants	
Skilled	54.1
Trained traditional birth attendants	11.5
Unskilled	34.4
Type of delivery	
Normal vaginal delivery with Episiotomy	11.5
Normal vaginal delivery without Episiotomy	75.4
Assisted vaginal delivery (Forcep)	1.6
C-section	11.5
Outcome of delivery	
Live birth	100.0
Stillbirth	0
Physical condition of the newly born baby	
Healthy baby	83.6
Sick baby	16.4
Type of health problems of the newly born baby* (n=10)	
Low birth weight (<2.5 kg wt)	50.0 (5 cases)
Lethargic/unable to breast-fed	30.0 (3)
Birth defect/birth injury	30.0 (3)
Type of health providers who provided treatment to the babies*	
Qualified doctors	60.0
Paramedic	30.0
Traditional birth attendant	10.0

Characteristics	%
Sex of the babies (n=61)	
Boy	50.8
Girl	49.2

* Multiple responses

4.4.6: Delivery care of FSWs

Table 4.4.6 represented care seeking practices of FSWs during delivery. Of 61 FSWs having a delivery in last one year, 80.3% delivered within the locality in Dhaka city and 11.5% went to their village or outside Dhaka for this purpose. The remaining eight percent respondents delivered the baby in Dhaka city but outside of their locality. The FSWs sought multiple sources for initial trial for delivery which included home (55.7%), not-for-profit private health facilities (NGO) (32.8%), public health facilities (16.4%), for-profit private health facilities (16.4%) and on street or park (9.8%). The final places of delivery after trials at different places included home (36.1%), not-for-profit private health facilities (NGOs) (27.9%), public health facilities (16.4%), for-profit private health facilities (16.4%) and on street or park (3.3%). The proportion of FSWs having a skilled birth attendants was 54.1%. The deliveries by trained traditional birth attendants and unskilled providers or relatives were 11.5% and 34.4% respectively. Three-fourth of the deliveries were normal vaginal delivery and 11.5% underwent for C-section. Although there was 100% live birth, 83.6% had a healthy newborn and 16.4% (10 cases) reported a sick baby. Of 10 sick babies, five cases (50%) were born with low birth weights, 3 cases were lethargic or unable to feed and 3 had birth defect or birth injury. The proportion of boys (50.8%) and girls (49.2%) among the babies of 61 deliveries was almost same.

Table 4.4.7: Postnatal care of FSWs who had a childbirth in last one year (n=61)

Characteristics	**%**
No of visit to a health provider within 42 days of last childbirth (n=61)	
0	50.8
1	26.2
2	19.7
3 or more	3.3
Type of healthcare providers (n=30)	
Qualified doctors	56.7
Nurse	33.3
Paramedic	26.7
BRAC's SK/SS	6.7
Other (SACMO/HA)	6.7

4.4.7: Postnatal care

The FSWs were asked whether they visited any medical persons for checkup within 42 days after their last childbirth. **Table 4.4.7.**showed that around half of the respondents did not have a postnatal visit after childbirth. However, about 23% FSWs made at least two or more PNC visits. They mainly made their PNC by qualified doctors (56.7%), nurse (33.3%) and paramedics (26.7%).

Chapter 4.5: STI experiences along with knowledge in HIV/AIDs

Table 4.5.1: Experiences of FSWs on STIs (STIs)

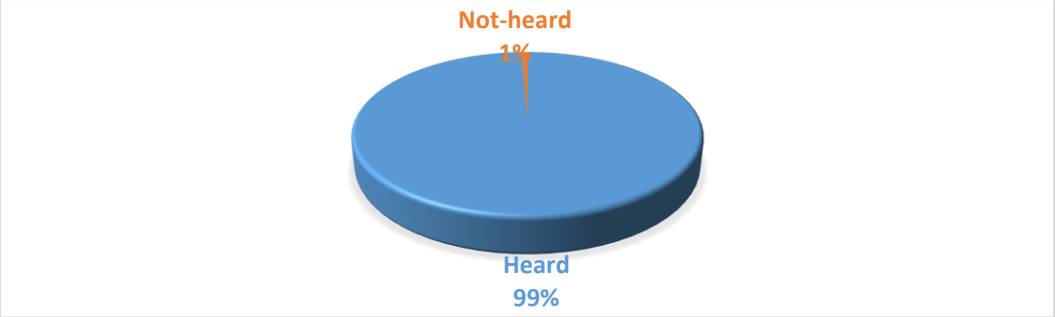
Characteristics	%
Had any STI experiences in last one year (n=731)	
Yes	41.6
No	58.4
Type of symptoms suffered (n=304)	
Vaginal discharge	73.7
Ulcer in genital area	45.7
Inguinal swelling	3.0
Lower abdominal pain	4.3
Itching in vagina	10.5
Sought any treatment	
Yes	97.4
No	2.6
Area of treatment (n=206)	
Within their locality (In Dhaka city)	90.5
Outside of their locality (In Dhaka city)	9.5
In native village/outside Dhaka city	1.7
Sources of healthcare seeking (n=206)	
Home by skilled providers	1.4
Home by unskilled providers	6.4
Public health facilities	11.1
Not-for-profit private health facilities (NGO)	14.5
For profit private health facilities	6.8
DIC	60.1
Drug shop	16.9
Doctor's private Chamber	3.0

4.5.1: Experiences of FSWs on STIs (STIs)

About 41.6% (304 cases) of 731 FSWs had suffered from any symptoms of STIs in last one year. Among them, 73.7% and 45.7% reported having vaginal discharge and ulcer in genital area respectively. A small proportion (10.5%) of respondents mentioned that they had itching in vagina. Data revealed that 206 of 304 cases (97.4%) sought for treatment of symptoms of STIs. Most of them sought treatment in their locality in Dhaka city but about 9.5% went outside of their locality in Dhaka. Sixty percent respondents received treatment from DIC while other NGOs were visited by 14.5%.

The contribution of public facilities in providing STI services was only 11.1%. About 16.9% respondents sought treatment from drugshop **(Table 4.5.1)**.

Figure 4.5.2.: Ever heard about HIV/AIDS



4.5.2. Knowledge on HIV/AIDS

Figure 4.5.2 showed that about 99% FSWs had ever heard on HIV/AIDS.

Chapter 4.6: Barriers in service utilization along with satisfaction with formal healthcare

4.6.1. Barriers in SRH service utilization

Overall, 51% of 731 FSWs reported facing any barriers while seeking SRH care from formal healthcare. The majority of them mentioned that cost or lack of money (72%) and feeling shame to get services (52%) were the problems they faced. Other barriers included services providers did not like to give services (40%), the misbehavior of the providers (17%), services were not available or inconvenient timing (12%) and fear of hatred from providers (5.6%) **(Table 4.6.1.)**.

Table 4.6.1: The self-reported barriers in accessing formal health services on SRH among FSWs in last one year (n=731)

Characteristics	%
	n=731
Faced any barriers	51.0
Types of barriers	**n=353**
Costly/lack of money	72.1
Feeling shameful to get this services	52.3
Service providers did not like to give services	39.9
The misbehavior of provider	24.4
Far distance	16.9
Not available always /Inconvenient time	12.1
Hate	5.6
Lack of transport	1.9
Do not know where to get care	0.8

4.6.2. Respondents' satisfaction level with the formal healthcare

Table 4.6.2.showed the level of satisfaction of the respondents with the formal healthcare. **Table 4.6.2A.**also showed that a few respondents (0.4% to 10.3%) could not respond to any of eight satisfaction units which were excluded to measure satisfaction scores. Finally, 371, 77, 84 and 221 respondents' responses on

contraceptive, MR/Abortion, maternal healthcare, STI services use respectively were considered to calculate satisfaction scores **(Table 4.6.2B)**. A total of 447 FSWs with contraceptive services, 77 for MR/Abortion services, 84 for maternal healthcare and 221 for STI services were found who received services from formal healthcare sources. As shown in **Table 4.6.2A**, less than 40% respondents were highly satisfied in terms of respect, privacy, autonomy, confidentiality, and prompt attention, support of social network, basic amenities and choice of health centre/ healthcare providers.

Contraceptive services: About half of the respondents sought contraceptive services from formal healthcare (n=447) reported 'satisfied' with the services on different satisfaction units. However, overall only 38% of respondents (n=371) achieved more than fifty percent satisfaction scores **(Table 4.6.2B)**.

MR/Abortion services: Of the respondents, 39.2% and 41.2% sought MR/Abortion from formal healthcare were less or not satisfied about basic amenities and choice of health centre/ healthcare providers for service respectively. About one-third of respondents were less on not satisfied with the privacy (29.9%), confidentiality (32.0%) and prompt attention (33.0%) issues **(Table 4.6.2A)**. Only 36.4% FSWs received highest level (score=9-16) satisfaction scores on MR/Abortion services respectively **(Table 4.6.2B)**.

Maternal Healthcare: Except privacy (21.6%), basic amenities (23.7%) and choice of health centre/ healthcare providers (18.6%), a good number of FSWs were highly satisfied on different issues on satisfaction, such as- respect (36.1%), autonomy

(36.1%), confidentiality (30.9%), prompt attention (33%) and social network support (34.0%). Overall, 41.7% of 84 cases had more than fifty percent satisfaction scores.

STIs services: Although less or not satisfied on different satisfaction units were relatively low on STI services compared to MR/Abortion or maternal healthcare, overall, only 36.2% (n=221) received more than fifty percent satisfaction scores.

Table 4.6.2: Proportion of respondents with the satisfaction on the SRH related formal healthcare in last one year

A. Satisfaction units	% of respondents by type of SRH care by satisfaction units															
	Contraceptive services n=447				MR/Abortion services n=97				Maternal healthcare n=97				STIs n=253			
	HS	S	NLS	NCCR	HS	S	NLS	NCCR	HS	S	NLS	NCCR	HS	S	NLS	NCCR
Respect	29.4	55.7	14.2	0.7	20.6	48.5	30.9	0	36.1	39.2	24.7	0	29.2	54.9	14.6	1.2
Privacy	32.6	52.6	14.4	0.4	24.7	45.4	29.9	0	21.6	51.5	26.8	0	25.3	56.1	17.8	0.8
Autonomy	33.7	49.7	15.5	1.1	35.1	35.1	29.9	0	36.1	44.3	19.6	0	32.4	51.0	15.8	0.8
Confidentiality	29.9	49.9	18.2	2.0	33.0	35.1	32.0	0	30.9	40.2	27.8	1.0	32.0	52.6	14.6	0.8
Prompt attention	26.5	50.6	21.6	1.3	30.9	35.1	33.0	1.0	33.0	39.2	25.8	2.1	26.1	55.3	17.4	1.2
Social network support	25.6	47.4	20.0	7.0	35.1	36.1	22.7	6.2	34.0	35.1	27.8	3.1	28.5	50.6	17.4	3.6
Basic amenities	18.9	50.3	25.6	5.2	22.7	34.0	39.2	4.1	23.7	33.0	39.2	4.1	20.9	53.8	20.9	4.3
Choice of health centre/ healthcare providers	13.9	51.2	27.0	7.9	22.7	25.8	41.2	10.3	18.6	38.1	35.1	8.2	19.4	51.0	23.3	6.3
B. Summary scores	% of respondents by type of SRH care by satisfaction level															
	Contraceptive services n=371				MR/Abortion services n=77				Maternal healthcare n=84				STIs n=221			
Given score	HS=2, S=1, NLS=0, NCCR=α				HS=2, S=1, NLS=0, NCCR=α				HS=2, S=1, NLS=0, NCCR=α				HS=2, S=1, NLS=0, NCCR=α			
Respondents having >50% scores (Score=9 to 16)	38.0				36.4				41.7				36.2			

HS=Highly satisfied, S=Satisfied, NLS=Not or less satisfied, NCCR= No comments or could not remember
[α]excluded from score calculation

4.6.3. Differences in level of satisfaction by type of services and providers

Table 4.6.3A and **Table 4.6.3B** described the results of one-way ANOVA analysis. Data showed that there were significant mean differences on satisfaction scores across the formal healthcare services.

Table 4.6.3A showed that in almost all SRH services from for profit private clinic/chambers (minimum 2 scores, except MCH:0) and from home by skilled providers (minimum 5 score, except contraceptive service: 0) received more than zero (0) score while those services from public and NGOs had minimum 0 scores. In this table we can also observe that none of SRH services (contraceptive:14, MR/Abortion:15, MCH: 15, STI:14) with the public hospitals earned highest maximum score 16. Overall, the mean satisfaction scores with standard deviation (SD) on different SRH services, eg., contraceptives, MR/Abortion, MCH and STIs were 8.95±3.5, 8.02 ± 4.6, 8.34 ± 4.1 and 9.00± 3.5 respectively.

According to **Table 4.6.3B**, except maternal healthcare, in most comparisons, it was revealed that women who received services from own home or provider's home were significantly more satisfied compared to other formal healthcare sources ($p<0.05$). MR/Abortion services from public hospitals got comparatively lower mean scores of satisfaction by -3.89 scores than that of NGO services. There was no significant mean difference found between different types of formal healthcare sources on maternal healthcare related satisfaction scores. Compared to public hospitals for STI services, all other formal healthcare sources (eg., NGO or for-profit private clinics) had significantly higher satisfaction scores.

Table 4.6.3A: Mean with Standard Deviation (SD) on achieved satisfaction scores of respondents with the formal healthcare

Type of services	Sources of formal healthcare	n	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Contraceptive services	Public hospitals	20	7.1000	4.58717	1.02572	4.9531	9.2469	.00	14.00
	For profit private clinic/chambers	14	9.9286	3.75119	1.00255	7.7627	12.0944	2.00	16.00
	NGO clinic	264	8.2386	3.11623	.19179	7.8610	8.6163	.00	16.00
	Home by skilled provider	73	11.8904	3.28533	.38452	11.1239	12.6569	.00	16.00
	Total	371	8.9596	3.58691	.18622	8.5934	9.3258	.00	16.00
MR/Abortion services	Public hospitals	23	5.3478	5.10444	1.06435	3.1405	7.5552	.00	15.00
	For profit private clinic/chambers	22	8.4545	3.01942	.64374	7.1158	9.7933	3.00	16.00
	NGO clinic	23	9.2174	4.78593	.99794	7.1478	11.2870	.00	16.00
	Home by skilled provider	9	10.7778	3.66667	1.22222	7.9593	13.5962	5.00	16.00
	Total	77	8.0260	4.65373	.53034	6.9697	9.0822	.00	16.00
MCH services	Public hospitals	21	6.4286	5.05541	1.10318	4.1274	8.7298	.00	15.00
	For profit private clinic/chambers	18	8.3333	3.18082	.74973	6.7515	9.9151	.00	16.00
	NGO clinic	42	9.1429	3.84816	.59378	7.9437	10.3420	.00	16.00
	Home by skilled provider	3	10.6667	3.21455	1.85592	2.6813	18.6521	7.00	13.00
	Total	84	8.3452	4.15221	.45304	7.4442	9.2463	.00	16.00
STI services	Public hospitals	18	3.9444	3.35142	.78994	2.2778	5.6111	.00	14.00
	For profit private clinic/chambers	12	8.4167	3.55370	1.02586	6.1588	10.6746	2.00	14.00
	NGO clinic	189	9.4762	3.15482	.22948	9.0235	9.9289	.00	16.00
	Home by skilled provider	2	13.5000	3.53553	2.50000	-18.2655	45.2655	11.00	16.00
	Total	221	9.0045	3.54260	.23830	8.5349	9.4742	.00	16.00

Table 4.6.3B: Mean differences within groups on achieved satisfaction scores with the formal healthcare

Dependent Variable	(I) Sources of formal healthcare	(J) Sources of formal healthcare	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Satisfaction score on contraceptive services (n=371)	Public hospitals (n=20)	For profit private clinic/chambers	-2.82857	1.13796	.105	-6.0245	.3674
		NGO clinic	-1.13864	.75737	.521	-3.2657	.9884
		Home by skilled provider	-4.79041*	.82420	.000	-7.1052	-2.4756
	For profit private clinic/chambers (n=14)	Public hospitals	2.82857	1.13796	.105	-.3674	6.0245
		NGO clinic	1.68994	.89562	.315	-.8254	4.2053
		Home by skilled provider	-1.96184	.95280	.239	-4.6378	.7141
	NGO clinic (n=264)	Public hospitals	1.13864	.75737	.521	-.9884	3.2657
		For profit private clinic/chambers	-1.68994	.89562	.315	-4.2053	.8254
		Home by skilled provider	-3.65177*	.43184	.000	-4.8646	-2.4390
	Home by skilled provider (n=73)	Public hospitals	4.79041*	.82420	.000	2.4756	7.1052
		For profit private clinic/chambers	1.96184	.95280	.239	-.7141	4.6378
		NGO clinic	3.65177*	.43184	.000	2.4390	4.8646
Satisfaction score on MR/Abortion services (n=77)	Public hospitals (n=23)	For profit private clinic/chambers	-3.10672	1.29479	.134	-6.8122	.5988
		NGO clinic	-3.86957*	1.28033	.034	-7.5336	-.2055
		Home by skilled provider	-5.42995*	1.70710	.023	-10.3154	-.5445
	For profit private clinic/chambers (n=22)	Public hospitals	3.10672	1.29479	.134	-.5988	6.8122
		NGO clinic	-.76285	1.29479	.951	-4.4683	2.9426
		Home by skilled provider	-2.32323	1.71798	.611	-7.2398	2.5933
	NGO clinic (n=23)	Public hospitals	3.86957*	1.28033	.034	.2055	7.5336
		For profit private clinic/chambers	.76285	1.29479	.951	-2.9426	4.4683
		Home by skilled provider	-1.56039	1.70710	.841	-6.4458	3.3250
	Home (n=9)	Public hospitals	5.42995*	1.70710	.023	.5445	10.3154
		For profit private clinic/chambers	2.32323	1.71798	.611	-2.5933	7.2398
		NGO clinic	1.56039	1.70710	.841	-3.3250	6.4458
Satisfaction score on maternal healthcare services (n=84)	Public hospitals (n=21)	For profit private clinic/chambers	-1.90476	1.30027	.546	-5.6183	1.8087
		NGO clinic	-2.71429	1.08189	.107	-5.8041	.3755
		Home by skilled provider	-4.23810	2.49853	.416	-11.3737	2.8975
	For profit private clinic/chambers (n=18)	Public hospitals	1.90476	1.30027	.546	-1.8087	5.6183
		NGO clinic	-.80952	1.14042	.918	-4.0665	2.4474
		Home by skilled provider	-2.33333	2.52442	.836	-9.5429	4.8762
	NGO clinic (n=42)	Public hospitals	2.71429	1.08189	.107	-.3755	5.8041
		For profit private clinic/chambers	.80952	1.14042	.918	-2.4474	4.0665
		Home by skilled provider	-1.52381	2.41919	.941	-8.4328	5.3852
	Home (n=3)	Public hospitals	4.23810	2.49853	.416	-2.8975	11.3737
		For profit private clinic/chambers	2.33333	2.52442	.836	-4.8762	9.5429
		NGO clinic	1.52381	2.41919	.941	-5.3852	8.4328
Satisfaction score on STI services (n=221)	Public hospitals (n=18)	For profit private clinic/chambers	-4.47222*	1.19027	.003	-7.8259	-1.1186
		NGO clinic	-5.53175*	.78782	.000	-7.7515	-3.3120
		Home by skilled provider	-9.55556*	2.38053	.001	-16.2628	-2.8483
	For profit private clinic/chambers (n=12)	Public hospitals	4.47222*	1.19027	.003	1.1186	7.8259
		NGO clinic	-1.05952	.95079	.743	-3.7384	1.6194
		Home by skilled provider	-5.08333	2.43932	.230	-11.9562	1.7896
	NGO clinic (n=189)	Public hospitals	5.53175*	.78782	.000	3.3120	7.7515
		For profit private clinic/chambers	1.05952	.95079	.743	-1.6194	3.7384
		Home by skilled provider	-4.02381	2.27029	.373	-10.4205	2.3729
	Home by skilled provider (n=7)	Public hospitals	9.55556*	2.38053	.001	2.8483	16.2628
		For profit private clinic/chambers	5.08333	2.43932	.230	-1.7896	11.9562
		NGO clinic	4.02381	2.27029	.373	-2.3729	10.4205

Chapter 4.7: The qualitative findings on barriers in service utilization by FSWs and barriers in service delivery by service providers

Table 4.7.1 : Characteristics of qualitative in-depth interview participants

Type of participants	Characteristics	Number of participants (f)
a) FSWs (n=14)		
	Age in years	
	15-24	8
	≥25	6
	Completed years of schooling	
	0-5	5
	≥6	9
	Marital status	
	Married	8
	Unmarried/divorced/separated/husband abandoned away	6
	SRH experiences	
	Currently using any modern contraceptives	10
	Had an MR/Abortion within an year	8
	Had a delivery within an year	5
	Had an STIs within a year	4
b) Service providers (n=9)		
	Designation	
	DIC Paramedics	3
	DIC Co-Ordinators	3
	DIC supervisors	2
	Out-reach workers	1

Characteristics of FSWs participated in qualitative interviews:

Most of the FSWs who took part in the in-depth interviews (n=14) were at younger age (8), completed 6 or more years of schooling (9) and currently married (8). Ten of them were currently using any modern contraceptives while respondents having an MR/Abortion (8), childbirth (6) and STI (4) experiences within a year were also interviewed **(Table 4.7.1)**.

The results of qualitative data has been described under two main themes, a) barriers in service utilization by FSWs and b) barriers in service delivery by service providers.

a) Barriers in service utilization

Financial barriers

Lack of money to utilize services is a very common barrier. The respondents complained that the providers only accept cash in advance to start treatment. One FSW shared her experience as,

"*They did not talk without money. I was dying, I had bleeding (vaginal), I was so restless. I was saying that I have money in my bank account. That day was Thurs day (last week day) and bank get closed at afternoon. I need to give the women (health provider) 3000 taka. Then, I send another mate to bring money. "...*[ID-107, 26 years of age, no educated, involved in sex trade for 6 years]

The misbehavior of provider

The FSWs said that the health providers behaved badly if they knew that they are sex workers. If providers come to know that they are sex workers, sometimes they demand more money than usual for their sex trade profession. They also described that the service providers often reject to provide services if they could identify them as sex workers. The FSWs who seek contraceptive services from pharmacy mentioned that the shop keepers not only disagree to provide services but also scold and call the local boys or police to catch them.

Inferiority and shame feelings

FSWs mentioned during in-depth interviews that they observed the other general women who came for treatment and perceived that the providers did not behave nicely as same as they did with general women. A few FSWs said that the providers gave the services with hate. FSWs also perceived that it is not possible to tell their health problem openly as same to the outside healthcare providers as they able to tell to the DIC providers because the outside providers do not know their profession. This is why theydo not seek much health services from outside. The unmarried marital status of FSW also expressed that feeling shame was a cause of not to discuss with a qualified doctor about reproductive health needs. A girl voiced as the following way,

"I only know that there is a hospital name 'Popular'. This is a good hospital. But I can't go there because I went there to accompany my niece for her treatment. Doctor now knows that I am unmarried. If I go there later and tell him/her that I am pregnant, will I not feel bad? Am I lose all my dignity?"...[ID-108, 17 years of age, completed eight years of schooling, involved in sex trade for two and a half months]

Lack of knowledge

A younger FSW mentioned that she did not have knowledge about contraceptive methods which can prevent pregnancy except '*femicon*' (an oral pill). She further disclosed that she did not know when to use that pill or if she does not have regular sex act with clients, whether she can avoid pills. Another FSW mentioned that she needed to go to *'Modhumita'* (a STI clinic) for STI treatment but she did not know the place.

Distance

A few FSWs mentioned that traffic congestions and far distance of referral centres are barriers to get services.

b) Barriers in service delivery

Inadequacy of services

Most of the DIC service providers said that they provide mainly STI/HIV prevention services to FSWs in the Drop-in-Centres. The outreach workers distribute condom to FSWs, identify STI patients and send those patients to the DIC. The paramedic provides the standard management for STIs. Most of them mentioned that they could not managesome cases as they do not have regular blood test capacity in the DIC. A team of testing comes to the DIC in three months and collect blood sample from 6/7 patients to identify types of STIs which is not adequate service considering the needs.

Logistic requirements

The providers mentioned that they have necessary logistics and organizational support to provide STI services. However, a few of them perceives that autoclaving takes about half an hour in the morning and they have capacity for autoclaving equipment for 5 patients at a time. This is why they cannot provide treatment if patients come more than five in number, even she is severe weak. The DIC providers also mentioned that they do not have ultrasogram facilities at the DIC although they need to advise some patients to do ultrasonogram.

Problems in the community

The outreach workers and supervisors faced some problems at field level by the public when they distribute condom to the FSWs. One provider cited as, "*the community*

people make comments on us on the road as we work for them (FSWs). Though we do awareness building activity at community,people think we help them at their illegal work" [ID-205, Designation: DIC Supervisor, 16 years of schooling]

Lack of availability of other SRH services

Regarding the other SRH related service delivery except STIs, all providers mentioned about lack of contraceptive services, menstrual regulation or abortion services, and pregnancy and delivery services in the DIC in spite of needs. They also mentioned that contraceptive services at DIC can prevent frequent termination of pregnancies.

"*The FSWs become frequently pregnant. There is no MR service here, but they (FSWs) want. Or, they can eat (take) something to prevent pregnancies, there is no pill(oral contraceptive pill)supply here, they are wanting pills*"…[ID-202, Designation: DIC paramedic, 12 years of schooling with 18 months paramedical training]

"it will be good if DIC can be brought under family planning service. Because we are working for them (FSWs). They do not go for the general family planning service. It will be good if it (family planning service) can be brought under DIC service. Specifically, injection or the contraceptive methods which are easy to use. And also in case of MR services, if there is a specific centre for them or linked with DIC services…. "[ID-205, Designation: DIC Supervisor, 16 years of schooling]

Referral problems

The paramedic suggested possible pregnant FSWs to buy pregnancy test strips. DIC have a referral provision if any pregnant FSW is identified. They have linkage with non-profit private organizations (eg., Marie stopes, Bangladesh Association for

Prevention of Septic Abortion) who provide maternal and reproductive health services. However, there are problems of referral exists. Cost of treatment in the referral centre is a common problem.

"*I give free STI treatment here, but if I send FSWs to other clinic or hospital or private chamber (eg., Marie Stopes), they will not give it free. For public hospital, FSWs need money for transportation and entry ticket". ....*[ID-205, DIC Co-Ordinator, 16 years of schooling]

"If I say at the referral centres that it is my girl(FSW), they will take 200 BDT for ultra-sonogram. They have to also collect a card where 30 BDT payment is compulsory. After that, the treatment they get, they have to buy medicine from outside or from them" [ID-203, DIC Co-Ordinator, 10 years of schooling]

According the providers, DIC provides 135 BDT (79 BDT=1 USD) for each referral case which is not a sufficient amount for diagnostic test or buying medicine in the referral centres.

Some of the providers identified problems in the referral system. In this system, a mobile team visited a community place of outside DIC once in a week for half day hours where suspected FSWs with SRH related problems need to be present for a checkup by a medical doctor. This doctor gives a referral slip if the patient needs to go to the referral centres. The DIC providers participated in the in-depth interviews said that visiting once in a weak and check only 5/6 patients of a DIC is not sufficient. This mobile team only accept for referral if pregnant women's age is 24 years or below

although some pregnant women are older than their eligibility criteria. One in-depth interview participant commented on possibility of unsustainability of this referral activity by mobile team, "*I heard that it will not go on. See, it is not coming for many days, my girls (FSWs) are returning for not seeing them. One of my FSW is near to her expected date of delivery but link up (the referral activity name) is not coming for 3/4 weeks*" …[ID-206, DIC outreach worker, 5 years of schooling].In addition, the providers said if they sent the cases directly to the nearby referral centres without the referral slip issued by the mobile team, they (FSWs) do not get services.In such cases, they (providers) had to send far for treatment. Furthermore, theDIC providers had to send cases far when the nearer referral centres'had lack of health staff for this referral service. According to the providers, many FSWs do not know the location of referral centres.One provider mentioned that the healthcare provider in a referral centre did not like to attend the referred cases of DIC until s/he asked her/his boss and complete the formalities. Another provider mentioned that the FSWs cannot open up with the provider at referral centre about their health problem while they can freely discuss about their health issues with DIC staffs.

Attitude and behaviour of healthcare providers

The DIC staffs participated in in-depth interview disclosed that the FSWs could not tell easily the outside healthcare providers about their profession. If they tell, the doctors do not show good attitude. Sometimes, the doctors ask so many personal questions like, who the father of this baby is; or why they do this profession. Sometimes, the doctors scold badly, or do not provide good services and sometimes, if agrees to provide services, take much money.

"While Iaccompanied with FSWs in health centres, I observed that the doctor behavior is different for the general women than FSWs. They gave the general women a good seat to sit, showing a good behavior, and make them understand the prescription nicely."... [ID-206, DIC outreach worker, 5 years of schooling]

One provider of DIC mentioned that she could not tell her family members that she is providing services to FSWs because they will not accept it. Even the provider herself did not take it easily at the beginning of her carrier.

Problems created by law enforcement persons

As police knows that DIC service providers work for FSWs, they sometimes follow the outreach workers when they go to field for condom distributions. These police later raid those places which is a barrier for service delivery to the FSWs. Moreover, police is frequently doing raid at different hotels, this is why, services targeting hotel based sex workers is being interrupted.

Lack of Government support

Due to low prevalence of HIV in Bangladesh, the Government is paying less attention in HIV prevention program in Bangladesh. This is why the international Donors is reducing fund to support DIC activities.

Work loads

Management of DICs decided to close some DICs due to fund constraint. A few providers mentioned that they had to increase the numbers of targeted FSWs as some other DICs has been closed which increase the workloads 3 times higher than as usual. The reduction of staffswere also reported in existing DICs where duties of expired staffs were distributed to the existing outreach workers and as a result,these staffs felt having extra burden of work. One IDI participant mentioned that the office time of outreach

worker in her DIC starts from 2:00 pm (at 14 railway hours) which is a problem as many FSWs need services from the morning.

Cultural barriers

A very few providers mentioned that the religious leaders of mosque, the neighbors and other residence where the DIC situated made objection sometimes to provide services to FSWs in Drop-in-Centres.

Chapter 4.8: Findings of Workshop

A workshop was conducted to identify barriers in implementation of SRH related services for FSWs, re-examining the recommendations which were prepared through phase 1 data collection (eg., survey and qualitative interviews) and to formulate better and acceptable recommendations for policy implication. A total of 23 participants from Government health department, national and international organizations had been actively participated in the half-day Workshop **(Table 4.8.1)**. A quick presentation was shared on findings and recommendations of phase 1 data collection to receive comments and suggestions regarding recommendation.

The information obtained through this workshop revealed that DIC is completely a private model that is supported by international Donors, especially, by Global Fund. It was established for prevention of HIV targeting key populations (eg., FSWs, transgender) as these population do not feel comfortable with general health system. This model successfully contributed to prevent STIs/AIDs, that is why, the disease burden of STI/AIDS remain low. On the other hand, the economic condition of the country has been improved over years. Considering this economic development and low disease burden, the Global Fund is reducing their fund support with expectation that Government will take over this Drop-in-Centre based healthcare delivery model for sustainability to keep low STI/HIV in the country. However, the main problem includes non-readiness of Government in this regard because no initiative was taken previously for involvement of Government with the existing STI/HIV prevention by DICs in all these years.

The impact of fund crisis was also described in details in the workshop. One participant explained that Donors reduced the budget allocation almost 50% and as a result, they are working using DIC model but into a modified way by reducing the human resource and the coverage of FSWs as well. The number of target FSWs were reduced to 26,000 from 29,000. Even it's quite difficult to accommodate them into current budget. Coverage of providing services reduced to 35% while 65% remain uncovered. Govt. should covered this uncovered sex workers and take initiatives addressing their need.

Regarding the recommendation about integrating SRH services with existing DIC services, one participant pointed out the need of structural development, such as expansion of existing infrastructures, extra manpower and healthy budget. She added that generating support from insufficient workforce and confirming more services are confronting. Even after confirming the requested services, quality services also should be ensured. However, she said that just reorganizing the existing settings could be possible right this moment. If it is expected more, paramedic (service provider) could have provided information services. Another participant mentioned that, within existing setup, DIC should provide valid referral link to the patients. They should just inform where the particular services are available. As well as, may arrange campaign in every 3 months. However, the former participant recommended assessing the feasibility of introducing any SRH intervention in the DIC to measure impact on existing resources including workloads of staff. The concern about integrating contraceptive services with existing DIC service was showed by a participant as- *"If other contraceptive services will make available in the DIC, is there any possibility to reduce condom use which is essential to prevent STIs?"* Testing feasibility,

acceptability and effectiveness of other contraceptive services integration in the DIC before scale up is needed to find out the answer of such concern. Another participant suggested that integration of satellite services for injectables contraceptives once in every three months will be possible in the DIC. One participant recommended integration with NGO health service delivery project (NHSDP) for contraceptive and maternal health services as they are providing these services in Dhaka.

The participants also discussed some more barriers about implantation of SRH services. For example, the Government and other healthcare providers are not well trained to provide services to FSW. She cited as,

"*Service providers of DIC are FSW friendly. They are well trained of accommodating friendly environment. Whereas, the Govt. service providers are not well trained to provide services to FSW. Therefore, govt. service providers need an orientation. She asked, why don't FSWs feel free, though services and medicines are available? Why should we confirm all the services from DIC? Why don't other facilities? We should answer these questions to solve the problems. Normally, FSWs are seeking treatment as human, not using her identity as sex workers but when their identity exposed, treatment formula changed. They are neglected and stigmatized*."

Another participant gave an example of negligence of provider as follows:

"*One FSW gave birth to a child in a public hospital. She was receiving treatment properly. Her identity was unknown to the service providers but when her identity exposed service providers forced her to discharge from hospital bed and accommodate her in the floor during winter season*".

One participant mentioned that, govt. wanted to diminish brothels without considering its impact in the society. She said that govt. could eradicate brothels and FSWs but about 3.7 millions clients which is the highest number of clients in Asia will be still existed. So, considering the social impact, govt. should take initiatives to make SRH related services easily accessible to FSW. Discussants added that, govt. is taking initiatives to ensure gender equity into the 5 year operational plan. To ensure equity and gender, social inclusion of FSW are needed, otherwise the problem will sustain. One participant mentioned that in the context of Bangladesh, it's quite impossible to expect, govt. will create ideal situation for FSW within formal healthcare system. So, fight for such an environment with the govt. and policy level stakeholders is needed. Moreover, the total funding for DIC coming from abroad but funding are squeezing may be vanished in near future. So, we should make them sustainable.

The participants mentioned that the recommendation generated through phase 1 are very relevant and true, however, the sustainability of DICs and readiness of Government to support DIC services should be priority recommendations to consider by the policy makers.

Recommendations identified through this workshop:

1. Govt. should come forward to take the responsibility to make the SRH services available, affordable and accountable for FSWs.
2.

3. Conduct orientation meeting and workshop with the Government key personnel including national policy makers for acceptability and readiness to support DIC services
4. Integration of existing NGO health service delivery project (NHSDP) for contraceptive and maternal health services with DIC services should be tested.
5. Extra fund, manpower and infrastructures will be needed for making SRH services at DIC
6. There is initiatives to ensure gender equity at the five year operational plan of Govt. health services. Under this initiatives, we should fight for inclusion of FSWs with formal healthcare system
7. International Donors also should continue their fund support at least until the Government is not prepared to take responsibilities of DICs

Table 4.8.1: Number of participants attended the Workshop by type of organizations

Name of organization	Type of organization	Number of participants
National AIDS/STD Control and National AIDS/STD programme	Public	1
Save the Children	INGO	2
Institute of Epidemiology, Disease Control and Research (IEDCR)	Public	1
Light House Consortium-FSWI	NGO	2
Bangladesh Women Health Coalition (BWHC)	NGO	1
Durjoy Nari Songha (DNS)	DNS	1
Marie Stopes	NGO	1

Name of organization	**Type of organization**	**Number of participants**
James P Grant School of Public Health (JPGSPH)	BRAC University	1
Young Power in Social Action (YPSA)	NGO	1
Research, Training and Management (RTM) International	NGO	1
Social Marketing Company (SMC)	NGO	1
icddr,b	International research organization	10
	Total	23

CHAPTER V
DISCUSSION, CONCLUSION AND RECOMMENDATIONS

FSWs (FSWs) are a marginalized and highly stigmatized group in the society due to poverty, low education and social rejection (43) which makes them particularly vulnerable when seeking care to meet their SRH(SRH) needs. The sex profession of FSWs is either illegal or semi-legal in most of the countries, and therefore, their SRH needs are usually ignored and get low priority by formal healthcare systems. This isolation creates hardship in their health and wellbeing and SRH in particular. Thus, to achieve universal access to SRH care and to improve the health and well-being of vulnerable and marginalized populations, FSWs need special attention so that they have access to service. This study was undertaken with the aim to understand knowledge, experiences and barriers faced in service utilization or service delivery among FSWs regarding contraceptives, abortion, maternal healthcare (pregnancy, delivery, postpartum) and STIs to design interventions to improve SRH related health outcomes.

Modern contraceptive use

This study shows that FSWs had good knowledge on names of short-term method (90%-100%) but fewer women could name long-acting (39%-61%) or permanent methods (31%). The current use of any modern methods were 88.1% which is much higher than national coverage (54%) [8]. Successfully condom distribution targeting FSWs by DIC and excluding unmarried women to assess contraceptive use by national survey may be possible two explanations of the differences between our study and national data. Drug shops and community based Drop-in-Centres were main sources of receiving contraceptive services. This study also observed that large size DIC was

helpful to increase knowledge level (77.6%) on contraception while lower size DIC showed better performance (84.7%) on reported use of condom.

Overall, 73% respondents had good knowledge on contraceptive methods which differed from a study conducted in Spain that showed FSWs had lower knowledge on contraception (101). Some of our study findings corroborate with the findings from another study conducted in China among adolescent FSWs. Their study also showed that 100% of the study respondents could name condom but had less knowledge of male or female sterilization, IUD, and implant. Our study findings differ from this study in terms of study respondent knowledge of oral pills and injectables which was much higher in Bangladesh - 98% vs 55% and 90% vs 12% for oral pills and injectables in Bangladesh and China respectively and some differs with another study conducted in China among adolescent FSWs. The similarity part showed 100% participants could name of condom and lower knowledge on male or female sterilizations, IUD, implant. The dissimilarity part showed 98% vs 55% and 90% vs 12% between Bangladesh and China participants knew about oral pills and injectables respectively (102). The reasons for this difference are not known.

Although a good proportion of respondents (88%) reported using any modern methods, use of oral contraceptive pills, Injectables, IUD, implant and female sterilization was very poor (15% to 21%); similar to studies in Moscow, Russia and Colombia (52, 56) which indicated either insufficient availability of services or barriers in accessing services. The majority (71%) of FSWs in our study were using condom which is in the middle of the range of other study findings for Bangladesh (59%-93%) and many other countries other studies' result of Bangladesh (59%-93%) and many of the countries of

the world (51%-84.5%) excluding Colombia where condom use was relatively low (17%) (52, 57, 87, 93, 103). As Bangladesh currently has a condom distribution programme for FSWs, it is not surprising that condom use is quite common among our respondents. This study did not assess whether the use of contraception was consistent or irregular which is a limitation of this study. Todd et al showed that consistent use of contraception (40%) was much lower than reported use of contraception (86%) (54). According to Colombian study, the younger FSWs having 18 to 28 years old commonly used oral pill, condom and IUD while our study did not find any association between age group and current use of any methods (52). However, our study findings indicate a little association between age group and dual protection of contraception.

The use of contraceptive was lower among residence-based FSWs compared to street or hotel-based FSWs. Due to frequent raids by police at hotels, FSWs are increasingly moving to residence-based locations. This may require that reproductive health programme implementers need to design programs that specifically provide contraceptive services to these residence based sex workers. The FSWs who had their practice in multiple settings, may have increased exposure to multiple interventions which may explain why they are using more contraceptives compared to FSWs who work in a single setting. Although dual protection (condom use in addition to another modern method) is a recommended practice, dual protection was only reported in 22% of women, much lower than Katz et al's study in Dhaka city which found dual protection rates of 44% among hotel based and 30% among street based FSWs (103). One explanation for the difference may be that Katz et al did not include residence based sex workers in their study. However, this dual protection status among

Bangladeshi sex workers is better compared to other countries (8-12%) (56, 104). These study findings also indicated that unmarried or other women were significantly more likely to use any or dual contraceptive as compared to married FSWs. The conservative culture and norm of the country might be restrict for this unmarried or divorced/widowed women to get menstrual regulation or abortion or other maternal health services which may drive them to be aware of using contraceptives. However, how the unmarried or divorced women get access to contraceptive services in this conservative culture is a question which need to be explored through a qualitative study in future. Local drug shops sell oral pills, condoms and injectables and these shops were the first source of contraceptive services reported by FSWs. As condom distribution is one of the services provided by DICs, a majority of FSWs reported receiving condoms from DICs.

The study results suggest some recommendations for policy makers and reproductive health programme implementers to consider regarding provision of contraceptive services to this population in the future. Increasing use of modern contraceptives and dual protection of contraception through making services available at community based DICs should be immediately initiated. For this purpose, the contraceptives supply of oral pills and injectables should be made available to the existing paramedic in the DIC. Initiative should be taken to integrate family planning (FP) services with existing HIV prevention intervention through establishing existing FP satellite clinic services weekly a day in the DIC. In addition, a referral system should be developed by the DIC with FP clinic where implant, IUD and Tubectomy services are available. Regular group discussion and counseling on long-acting or permanent methods including the

importance of dual protection should be added to existing DIC services. Married and residence-based sex workers, FSWs who had their sex work in only one setting, women with none or few lifetime pregnancy experiences should be specifically targeted for this type of counseling and group discussions given their poor use of contraceptives. Further study should be undertaken to explore feasibility, acceptability and possible scope of collaboration with existing family planning and sexual transmitted infection prevention programme for delivery of contraceptive services to FSWs.

Abortion

A total of 113 or 15.5% of total FSWs surveyed (n=731), reported having an abortion in last one year. A study conducted in Uzbekistan reported doing abortion (26.8%) at the second stage of pregnancy by FSWs(54). However, our findings about high abortion was supported by another recent study by Katz et al where abortion rate among FSWs in Dhaka was 13 to 16% (103). Several other countries in the world indicated more than 50% abortion history in FSWs' life time, support also our findings (52, 54, 56, 57, 60).

Menstrual regulation (MR) by manual vacuum aspiration (MVA) has been implemented in Bangladesh with national family planning programme in 1979 for continuation of pregnancies within 8 to 10 weeks after a woman's missed period. An induced abortion can also be offered with considering only condition that is to save one's life (105).Tablets (eg., Oxytocin or misoprostol) at earlier pregnancies (>6 weeks pregnancies) and Dilation and Curettage(D & C) for advanced pregnancies (7 to 10 weeks) are standard methods for induced abortion in Bangladesh. Studies indicated that women often used foreign objects at the uterus, abortifacient tablets from drug shops or unqualified allopathic practitioners for abortion(106). Another study documented

unofficial abortion practices by providers for women who did not meet recommended criteria for doing an abortion (107). Management of MR/Abortion of FSWs in our study reflected the use of existing practices.

Private health facilities (for profit) (35.4%) was the first sources of abortion care, followed by public health facilities (23.9%) as second places for care seeking. NGO facilities (15.0%), drug shop/pharmacies (16.8%) and home by unskilled providers (16.8%) were used by almost same proportion of respondents. About 9.7% respondents sought care from home by skilled providers. Qualitative data explained that FSWs had to pay more than usual for abortion service and received judgmental attitude from formal healthcare providers which suggest conducting periodical training of service providers to change their attitude toward FSWs.

Complications were developed among more than 50% FSWs which either made possibility of doing abortion after the recommended pregnancy duration or absence of post abortion care. About half (49.2%) of them (n=65), were suffered from excessive bleeding. Lower abdominal pain (40.0%) and severe weakness (43.1%) were also reported by a good proportion of respondents. About one-fourth (24.6%) FSWs had blurry vision or STIs (STIs) or foul smelling discharge or incomplete abortion

Maternal healthcare

Current pregnancy

Pregnancies experiences of FSWs were prevalent in world wide. FSWs' any pregnancy experience in lifetime was reported in India (83.7%) and Brazil (83%) (58, 67). The

prevalence of unwanted pregnancies were shown 28.6% in Ethiopia and 37.3% in Afghanistan (57, 61) whereas a few studies indicated the willingness of intended pregnancy among FSWs although it was very rare (61, 68). A qualitative exploration explained that acquiring respect as mother, ignoring stigma and getting financial benefits drove FSWs to plan for pregnancies in Ethiopia (68). Although our study did not ask women whether the current pregnancies were planned or unplanned, about three-fourth (75.8%) of the respondents had a plan to continue the pregnancy while about 12% had planned to terminate the pregnancy. The younger age of FSWs, ineffective use of contraceptives, unprotected sex or failure to use of condom, sex trafficking experiences were identified as associated factors of unintended pregnancies in many studies (61, 63, 64). Current pregnancy in Ethiopia was a little lower (5.1%) than our study which showed that 9% of 731 FSWs were pregnant at the time of interviews (61). Of 66 pregnant women, 51.5%, 10% and 6% were confirmed their pregnancy through pregnancy strip, urine test and skilled health provider's checkup respectively. They were at first trimester (0-3 month) (36.4%), 2nd trimester (34.8%) and 3rd trimester (28.8%) of pregnancies. Continuation of sex work during pregnancy was common among sex workers of different regions of the world (62, 67, 69) which corroborates our findings where forty eight percent respondents were continuing their sex trade during current pregnancy and the main reason was earning as a regular source of income. Wills et al reported that many pregnant FSWs had to face violence by their clients, even some were murdered (69). The safe motherhood program in Bangladesh should track these pregnant FSWs and bring them under the appropriate healthcare coverage during pregnancy, provide counseling to help making proper decisions about

pregnancies and undertake educational intervention including make contraceptive services available and accessible to prevent unwanted pregnancies.

Antenatal care

Pregnant women without having complications or risks factors are required to make at least 4 ANC visits during 16 weeks, 24-28 weeks, 32 weeks and 36 weeks of pregnancies (108, 109). Our study findings indicated that 27.7% FSWs had four or more ANC visits which is much lower compared to national coverage which showed 45.5% urban dwellers visited 4 or more ANC visits (89). Although a few studies (62, 68, 69) indicated ANC practices but there is a lack of information about number of ANC or type of care which incapable us to compare finding with our study. The Indian FSWs reported having antenatal HIV testing by FSWs during pregnancies while Beckham et al and Willis et al described barriers in getting access to ANC services mainly due to discrimination or unfriendly behavior of healthcare providers (62, 68, 69). Our study also found that almost all FSWs reported having any type of complications during pregnancies which also put emphasis on implementation of target based maternal healthcare for FSWs.

Delivery care

There was a large variation seen across the findings of studies which reported childbirth as a result of pregnancy outcome among FSWs, such as- About 51% was Madagascar, 33.2% in Ethiopia and 8.3% in our study (64). Geographical variations could be the possible reasons of the differences between these studies. Although our study demonstrated much lower birth experiences (8.3%) than Madagasker or Ethiopia, this

finding is higher compared to those of Bangladeshi general women which data were circulated by national surveys (20 live births/thousands women (110)). Since only recent study by Katz et al found 32% to 53% FSWs who sought maternal and child care in Bangladesh, they did not show the childbirth rate and this is why no comparison with our study on prevalence of childbirth among FSWs (eg, 8% delivery in a year) is possible. The proportion of FSWs having a home birth (39.3%) was quite similar to national findings where 42.3% of urban residents had a home delivery (89). Almost similar proportion of FSWs in India (44.2%) compared to Bangladesh reported home birth (67). Deliveries at home, bar, street was reported generally in South Asia, sub-Saharan Africa, north Africa, North and South America, Europe, and southeast Asia (69). Utilization of ANC were associated having a facility delivery in Ethiopia (62). Seven of 37 facility deliveries used C-section which means 1 in 5 FSWs with a facility delivery have a chance to go for C-section for severe complications. There is scarcity of research articles found which describe childbirth experiences of FSWs in details, therefore, this paper could be useful for the safe motherhood programme to understand the situation and consider initiating target specific maternal health programme for FSWs. Although there was 100% live birth, several other studies indicated having experience with stillbirth (1% to 14%) (58, 61, 67). Although maternal deaths was not found in our study, Willis et al reported in their multi-regional study that 20% of pregnant FSWs were died during pregnancy or delivery in last three years (69). About 83.6% had a healthy newborn and 16.4% (10 cases) reported a sick baby in our study. Of 10 sick babies, five cases (50%) were born with low birth weights, 3 cases were lethargic or unable to feed and 3 had birth defect or birth injury. The proportion of boys (50.8%) and girls (49.2%) among the babies of 61 deliveries was almost same. The

national surveys should include assessment on SRH indicators with a sub-sample of FSWs population.

Postnatal care

The FSWs were asked whether they visited any medical persons for checkup within 42 days after their last childbirth. The results showed that around half of the respondents did not have a postnatal visit after childbirth. However, about 23% FSWs made at least two or more PNC visits. They mainly made their PNC by qualified doctors (56.7%), nurse (33.3%) and paramedics (26.7%). Only one study demonstrated some experiences during postpartum which included joining back to their profession within few days or weeks after delivery of the child and suicides and postnatal depressions were reported (69).

STI/AIDS

The unhealthy practices, for example, use of traditional healers, herbalists, injection doctors, drug sellers or pharmacist for management of STIs is common in this region including other developing countries(111-113). However, our study reflects an improved situation regarding knowledge on HIV/AIDs and relatively good care seeking practices on STI management among FSWs. The majority of respondents sought care from DIC which goes with findings from Laos with reporting 53% care from DIC (9). While care seeking for STIs by male partners of FSWs in Bangladesh was dominated by pharmacies, the FSWs used pharmacy only among 16% cases(114). These findings implied the successful role of DI\Cs in providing STI services among FSWs. Therefore, sustainability of existing STI prevention and management intervention is a key requirement to continue such good practices among FSWs of Bangladesh.

Barriers in service utilization or service delivery including quality of care

This study highlighted that the majority of the FSWs who sought formal healthcare for sexual or reproductive health services faced barriers and had moderate to low level of satisfaction. The financial constraint and shame were the most common barriers identified by the FSWs themselves, while unavailability of SRH services targeting FSWs and an inadequate referral system were identified as main barriers by the service providers.

One of the goals of a health system is a fair financial contribution in healthcare with the condition that individuals or households will not be ruined by catastrophic health care payments, and where poor should be subsidized for their health-related cost by rich (115). With our study, lack of money, the cost of healthcare, and higher fees for sex workers have been a common problem as reported in different parts of the world, such as in Nepal, China, Laos, Vietnam, and Russia (9, 10, 116-119). Several studies also similarly indicated that FSWs perceived shame to get services with general population and that healthcare providers had a judging attitude toward them (11, 116, 120). Stigma, discrimination and fear of recognition was felt by FSWs, especially when healthcare providers asked them personal questions about sex trade and their sex history (10). A study conducted in Laos showed that FSWs did not even feel comfortable in the DICs that were established within public hospitals, as the chance to be seen by general public was higher (9). In Bangladesh, there is only static DICs available where the target beneficiaries are only FSWs. However, no SRH but STI/HIV prevention services are available in these DICs. Lack of other SRH services

(eg., contraceptives, menstrual regulation/abortion, maternal healthcare) was identified as a barrier which is similar to the findings another study conducted in Bangladesh (103). A referral system to overcome this barrier and to connect FSWs with the health system is a good option to improve access to care (119). DICs in Dhaka city already developed a referral system with other NGOs. However, this referral system revealed to be largely unorganized due to inadequate referral support, financial charge at referral centers, unsustainable referral provision, and unknown location of the referral center by beneficiaries.

Patients' satisfaction is an important indicator for assessing the quality of a healthcare service (121). In our study, most of the respondents received lower scores of satisfaction with formal healthcare. Several studies identified the need of maintaining privacy and confidentiality with the health service provision to accept SRH services or increase healthcare clinic utilizations (10, 81, 122, 123). In our study, although the majority of the respondents was 'just satisfied' (i.e. neither much satisfied nor less satisfied) with privacy and confidentiality in the healthcare system, a good proportion of women were less or not satisfied with maintaining privacy and confidentiality at the formal healthcare, especially, during seeking care for MR/Abortion and maternal health services. Respondents also had a limited options to choose from healthcare providers or health centers in this poor-resources setting of the country. They were not even very satisfied with the basic amenities needs (eg., rest room, access to water, toilet).

In Bangladesh, community health workers who provide maternal health, child health, family planning, nutrition and other services through door-to-door visits at field and home level are available in all types of urban areas (eg., 63% of city-corporation slums, 49.0% of city corporation non-slum and 53.3% of other urban areas) (124). Study findings showed that respondents had a significant satisfaction level when care was received at home by skilled providers. MR and abortion services through public, not-for-profit private (NGO) and for-profit private healthcare centers is widespread in Bangladesh. The FSWs in our study were less satisfied with Government services compared to NGO services. A study conducted by Mannan et al identified issues related to public MR/Abortion services, such as far distance of health centers, financial matters (eg., cost of transportation, unofficial fees), lack of privacy, confidentiality and cleanliness and judgmental attitudes of service providers which may be the important factors behind lower satisfaction scores in public facilities (125). The funding changes of NGO facilities are also a concerning issue (125).

Acceptable recommendations by policy makers, researchers and program implementers

Health service delivery through DIC is an effective approach to reach and ensure services to a hiding population like FSWs. More than half of FSWs sought care successfully from DIC in our study and other countries, such as- Laos, Canada (9, 78). The example of successful contribution of DIC was seen in a study conducted in Mysore, India which showed that the proportion of FSWs ever visited a DIC was increased from 56.% during base line (approximately 6 months after project initiation) to 89.6% follow up (again 2.5 years later) and it had significant association on positive change regarding condom behavior and reducing STIs (126). However, DICs

are facing tremendous troubles to manage fund for its sustainability, such as – arranging renting cost of office space, staff and service delivery cost, medicine, logistic and equipment cost (76). Several Indian studies pointed out limited current or future funding opportunities in the area of HIV/AIDS prevention (80, 83). The similar issue was raised during discussion in the Workshop of our study. As DICs are the base of health services targeting FSWs and to integrate other SRH services with it, sustainability of DICs should be ensured. Therefore, adopting sustainability strategies get highest attention and priority recommendations by Workshop participants for policy implications. In India, three sustainable strategies were being tested which included i) enhancing capacities among communities, non-governmental organizations (NGOs), and government entities, in line with India's national AIDS control strategy, ii) aligning technical and managerial aspects of Avahan programs with government norms and standards; and iii) promoting and sustaining commitment to services for most-at-risk populations (80). It is the crucial time for us to start negotiation with Government, other local stakeholders and Donors to explore, plan and test of sustainability options of community based DICs in the context of Bangladesh.

The program implementers participated in the Workshop strongly recommended taking initiatives on preparedness and responsiveness of Government and other key national stakeholders who are responsible to implement SRH related intervention in general that they should come forward to make services available and accessible for FSWs. Thus, advocacy and training of the key health and other personnel of health institutions should be considered as a priority basis by the policy makers. Idea also came in the Workshop that we should fight for ensuring services for FSWs using the

five year operational plan on social inclusion and gender equity by the Government. As Government has already taken on several tasks, eg., carrying out women friendly hospitals, increasing coverage of HIV testing and services, affordable services, introducing law and policies to increase knowledge and tolerance of health workers, deletion of all discriminatory provisions in all laws and policies etc. (23), we should take activities or design projects to make these plans into practices.

The successful integration of family planning/SRH services and HIV approaches are seen in Kenya, Zambia and African countries (80, 81, 109). Petruney et al in a recent study in 2012 addressed the need of developing, implementing and evaluating the integration of HIV prevention and family planning services in Asia (127). Throughout the Workshop, the need of integration of SRH services with existing DIC services discussed and come to some agreements that other SRH services can be integrated in the DIC with condition that the existing infrastructures and human resources will be extended to serve more new services. The other practical suggestions were to make collaboration or integration with exiting Government funded UPHCP or Donor funded NHSDP project as they are responsible to provide MNCH-FP services in urban areas.

Strengths of the study

This is the first report in Bangladesh which documented service availability, barriers and level of satisfaction for SRH services among FSWs of urban areas. This study also conducted with policy and decision making level personnel to prepare practical-based recommendations.

Limitation of the study

The findings of this study may not be generalizing to FSWs in rural areas or brothel-based FSWs. There is also possible that recall or response bias may have influenced the findings because of self-reported data. The programme implementers participated in the Workshop may give emphasis on the recommendations based on their engagement on the issue and interest.

Recommendations

Contraceptive services

i. The contraceptives supply of oral pills and injectables should be made available to the existing paramedic in the DIC
ii. Integration of FP services with existing HIV prevention intervention through establishing existing FP satellite clinic services weekly a day in the DIC. Future research should be conducted for testing it as piloting basis before scale up.
iii. Regular group discussion and counseling on long-acting or permanent methods and the importance of dual protection among FSWs should be added to existing DIC services
iv. A referral system should be developed by DIC with FP clinic where implant, IUD and Tubectomy services are available. Future research should be conducted for testing effectiveness of this strategy.

Abortion

i. Regular group discussion and counseling in the DIC on preventing abortion at advance stages of pregnancies

ii. Health education about danger signs of post abortion including post abortion care should be taken into account for FSWs

iii. Regular group discussion and counseling on use of contraceptive to prevent unwanted pregnancies

iv. Existing referral system of DIC for abortion services should be strengthened and sustained

Maternal healthcare

i) Integration of existing MNCH satellite clinic services with existing HIV prevention services at the DIC for increase accessibility to ANC and PNC services. Future research should be conducted for testing it as piloting basis before scale up.

ii) Implementing a separate maternal health corner in the existing DIC

iii) Developing referral systems for management of maternal complications including delivery care of FSWs

iv) Promoting deliveries by skilled attendants should also be considered

STIS/AIDS

- Government should allocate or share the cost of DIC services for sustainability. For this purpose, Government can set some standard criteria to operate DIC (eg., yearly performance indicators) and, based on those criteria, there should be option for DIC to receive Government registration. The Government registered DIC may get some incentives, such as-eligible to get partial salary share of staffs, additional infrastructure establishment support.
- International Donors also should keep their financial support
- Promoting public-private partnership for management of STI/AIDS

- Investigating easy diagnostic tools to identify different type of STIs at the DIC level

Barriers in service utilization or service delivery including quality of care (patient's satisfaction)

i) An SRH related health insurance policy should be implemented to overcome financial barriers. Developing collaboration with health insurance companies can be considered in this regard. A feasibility study should be conducted to develop and implement effective collaboration.

ii) Provision of monthly training and counseling session for SRH related service providers to sensitize them to increase their friendly behavior to FSWs. Future research should be conducted for testing it as piloting basis before scale up.

iii) Integration of SRH services with the Drop-in-Centre services should be tested so that the FSWs do not feel shame to seek services and adequacy of SRH services for FSWs can be confirmed.

iv) Regular advocacy meetings with community people, religious leaders as well as law enforcement group should be carried out to prevent harassments by them.

v) Existing referral system should be strengthened and sustained

vi) A patient satisfaction tool should be introduced in the health facilities to monitor quality of SRH services

vii) Exploring programmatic and financial sustainability options on SRH services for FSWs

Policy implications

1. Increasing use of modern contraceptives and dual protection of contraception through making services available at community based Drop-in-Centres
2. The high prevalence of abortion and complications among FSWs highlights about need of ensuring safe abortion services including post abortion care
3. FSW focused maternal health intervention should be developed and introduced for increasing recommended four ANC and four PNC at recommended time including skilled delivery care
4. Sustainability of existing HIV prevention and management intervention is a key requirement for keeping current steadiness on spread of STI/AIDS among FSWs
5. Short term and long term evaluation activities should always counted as an integral part of existing SRH related interventions to receive feedback for overcoming barriers and improving outcomes. A nationwide SRH related survey targeting FSWs should also be conducted in every two years.
6. Readiness and responsiveness of Government and other formal healthcare system to SRH care of FSWs is priority need for sustainability of DIC services and increase accessibility to SRH.

Current implication

1. A research titled “Effectiveness of using mobile scratch card by FSWs for medical appointments and advocacy meetings targeting health providers to improve

accessibility and friendly SRHservices in selected public and NGO clinics in Dhaka, Bangladesh" has been initiated.

2. The policy brief is underway for printing which will be distributed to relevant national and international organizations including non-profit local private health centres so that they can use it for future fund allocations.

APPENDIX

Appendix 1: Lists of DICs in Dhaka city

Appendix 1A (List 1): Dhaka based DICs of FSWs under DNS Consortium

Sl No	Implementing SR/SSRs	DIC Name	DIC Address	Setting wise FSW	Current Mother List (P-22)	Total
1	BAPS	Jatrabari	Jatrabari DIC,32/2, Shaid Farruque Sawrak, (1st floor) Opposite of Khankha Mosjid, Jattarabari, Dhaka	SBSW	45	326
				HBSW	52	
				RBSW	229	
2	DNS	Mirpur	Mirpur DIC,C/o, Ali Ahmmed, House # 93, Road # 05,South Bishil, Darus Salam, Mirpur-1, Dhaka	SBSW	177	293
				HBSW	41	
				RBSW	75	
3	DNS	Dholaipar	Dolaipar DIC,C/O, Md. Bellal Hossain165, Muradpur Madrasa Road, Jurain, Dhaka	SBSW	286	286
				HBSW	0	
				RBSW	0	
4	DNS	Lalbagh	Lalbagh DIC,C/O, S.K. Mahbub Hossain38, B.C. Das Street (3rd floor), Dhaka.	SBSW	276	276
				HBSW	0	
				RBSW	0	
5	DNS	Kamrangichor	Kamrangirchar DIC,C/O Sharif Mofazzal, “Sharif Vila”,492 Rasulpur, Chamrangirchar, Dhaka	SBSW	184	184
				HBSW	0	
				RBSW	0	
6	DNS	Keranigonj	Keranigonj DIC,C\O Mr. Nazrul Islan Nazu, Aganagor, Keranigonj, Dhaka	SBSW	235	235
				HBSW	0	
				RBSW	0	
7	DNS	Nawbabpur	Nawabpur DIC,37/1, Vazohori Saha Street, Bhuter Goli, Ward No - 77, Dhaka-1100.	SBSW	52	270
				HBSW	56	
				RBSW	162	
8	DNS	Chankerpul	Chankherpool DIC,House # 32, Abul Hasnat Road, Bangshal, Dhaka.	SBSW	176	228
				HBSW	23	
				RBSW	29	
9	DNS	Mohammedpur	Mohmmadpur DIC,C/O, Ireen Haque, N-7, Nurjahan Road, Mahmmadpur, Dhaka	SBSW	190	190
				HBSW	0	
				RBSW	0	
10	DNS	Adabor	Adabor DIC C/O, MS. Fatema Johora W/o, A. B. Samad	SBSW	205	205
				HBSW	0	
				RBSW	0	

Sl No	Implementing SR/SSRs	DIC Name	DIC Address	Setting wise FSW	Current Mother List (P-22)	Total
			"Jharnadhara" 19, Darus Salam, Kobborstan Road, Mirpur, Dhaka-1218			
11	DNS	Matuail(outreach)	Matuail (Outreach Office),C/o,Md. Abdullah Miah, Matuail Majpara, Matuail, Jattarabari, Dhaka	SBSW	0	121
				HBSW	0	
				RBSW	121	
			Total			2614

Appendix 1B (List 2): Dhaka based DICs of FSWs under BWHC Consortium

SL	Implementing SR/SSRs	DIC Name	DIC Address	Setting wise FSW	Mother Listed FSWs in Reporting Period	Total
1	BWHC	Paltan	Paltan-DIC 70/D Purana Paltan Line,3rd floor,Dhaka	SBSW	187	187
				HBSW	0	
				RBSW	0	
2	BWHC	Airport	Airport-DIC, House # 226/A, Ashkona, Dokhinkhan, Uttara, Dhaka	SBSW	190	238
				HBSW	0	
				RBSW	48	
3	BWHC	Ibrahimpur	Ibrahimpur-DIC, 868 Kazi Para (Opposite to Kazi para Bus stand), Counter lane, Mirpur, Dhaka	SBSW	86	287
				HBSW	0	
				RBSW	201	
4	BWHC	Pallabi	Pallobi-DIC, House # 22, Road # 19, Section # 6, Block-D, Pallobi, Mirpur, Dhaka	SBSW	80	387
				HBSW	0	
				RBSW	307	
5	BWHC	Nakhalpara	Nakhalpara-DIC, 53/1 Station Road, Tajgaon, Dhaka-1215	SBSW	163	186
				HBSW	0	
				RBSW	23	
6	BWHC	Fakirapool	Fakirapool-DIC, 160 South Kamlapoor, Shantinagar Dhaka-1203	SBSW	260	260
				HBSW	0	
				RBSW	0	
7	BWHC	Khilgaon	Khilgaon-DIC, 620/A, Tilpapara, Khilgaon, Dhaka-1219	SBSW	58	197
				HBSW	0	
				RBSW	139	

SL	Implementing SR/SSRs	DIC Name	DIC Address	Setting wise FSW	Mother Listed FSWs in Reporting Period	Total
8	BWHC	Kuril	Kuril-DIC, House # KA/143/F-1,Kuril,Dhaka	SBSW	264	264
				HBSW	0	
				RBSW	0	
9	BWHC	Uttara	Uttara-DIC, C/O: Nurizzaman Vuttu,Ber Muktijoddha Matiur Rahman Sarak, Azampur,Dokhin Khan, Uttara, Dhaka	SBSW	233	311
				HBSW	0	
				RBSW	78	
10	BWHC	Cantonment	Cantonment-DIC, 695/2,Manikdi (Mathar corner), Dhaka Cantonment, Dhaka-1206	SBSW	195	223
				HBSW	0	
				RBSW	28	
11	BWHC	Khilkhet	Khilkhet-DIC, Kamar Uddin Vila, Ka 40/2, Khilkhet Moddhopara, Dhaka-1229	SBSW	69	218
				HBSW	0	
				RBSW	149	
12	BWHC	Sabujbag	Sabugbug-DIC, House # 70 (Ground floor), North Basabo, Sabugbug, Dhaka	SBSW	111	261
				HBSW	0	
				RBSW	150	
13	BWHC	Motijheel	Motijheel-DIC, 260/1 Gorom Pani Goli, 2nd floor, Fakirapol, Motijheel, Dhaka-1000	SBSW	152	212
				HBSW	46	
				RBSW	14	
14	BWHC	Rampura	Rampura-DIC, House # 7, Omar Ali Lane,West Rampura, Dhaka-1219	SBSW	38	187
				HBSW	0	
				RBSW	149	
			Total			**3418**

Appendix 2: Survey questionnaire

The questionnaire is available at:
http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0174540#sec028

Appendix 3: qualitative guidelines

Appendix 3A: In-depth interview guideline with FSWs

ID of interview:

Date:

Time:

Place of interview:

DIC coverage area:

Name of interviewer:

Background characteristics

 What is your current age?

 Did you ever go to school? How many years had you been school?

 What is your current occupation? How long have you been engaged with current job?

 How many members do you have in your family?

 Where do you live?

SRH practices

Contraceptive use

 Have you ever heard about any contraceptive methods? What are those? Do you know where contraceptive services are available? Are you currently using any

contraceptives? If yes, what type of methods are you using? Why? If you are not currently using a method, what are the reasons behind not using methods? Did you ever use any contraceptives? If yes, what type services did you use? If no, why were you not using a method ever? Did you face any problem or barrier to use a contraceptive? If yes, what were the barriers or problem that you faced (Please, probe: client side/provider side/cost/not availability/Any other)? Please, discuss details. Please, share us a story of your life that you planned to use a contraceptive but could not due to different barriers.

MR/Abortion

 Have you ever heard about MR/Abortion? What do you know about MR/Abortion? Do you know where MR/Abortion services are available? Have you ever had a MR/Abortion? How many times had you have MR/Abortion? If yes, how long ago? Whom did you seek care? Why? Did you face any problem or barrier to seek care for MR/Abortion from a formal healthcare provider? If yes, what were the barriers or problem that you faced (Please, probe: client side/provider side/cost/not availability/Any other)? Please, discuss details. Please, share us a story of your life that you experienced while seeking care for MR/Abortion services.

Maternal healthcare

 What do you know about maternal healthcare? Do you know where maternal health services are available? If yes, please tell us about those places of maternal health care? What type of care should be received by pregnant women? Where are those care services available? Where delivery should take place? Do you know about postnatal

care? If yes, please describe? Do you know about any complications that may cause maternal deaths? If yes, what are those complications? Where treatments of those complications are available? Have you ever sought care for pregnancy, delivery or postpartum after joining to sex trade? If yes, how long ago? Whom did you seek care? Where did you seek care? Please, tell us details (Probe: details care seeking on ANC/Delivery/PNC?). Did you face any problem or barrier to seek care for any maternal healthcare services from a formal healthcare provider? If yes, what were the barriers or problem that you faced (Please, probe: client side/provider side/cost/not availability/Any other)? Please, discuss details. Please, share us a story of your life that you experienced while seeking care for maternal healthcare services.

STI/AIDs

- Have you ever heard about STI/AIDS? What do you know about STI/AIDS? Do you know how can STI/AIDS be spread? Do you know how can STI/AIDS be prevented? Do you know where STI/HIV prevention or curative services are available? Have you ever had a sexually transmitted infection (STIs)? If yes, how long ago? What type of STIs did you suffer? Whom did you seek care? Why? Did you face any problem or barrier to seek care for STI/HIV services from a formal healthcare provider? If yes, what were the barriers or problem that you faced (Please, probe: client side/provider side/cost/not availability/Any other)? Please, discuss details. Please, share us a story of your life that you experienced while seeking care for STI/HIV services.

Referral care

Have you ever been referred for any SRH care? Please, probe on each of the following issues:

- Contraceptive use (Why refer, when refer, where refer, description of any barriers faced in service utilization)
- MR/Abortion (Why refer, when refer, where refer, description of any barriers faced in service utilization)
- Maternal healthcare (Why refer, when refer, where refer, description of any barriers faced in service utilization)
- STI/AIDs (Why refer, when refer, where refer, description of any barriers faced in service utilization)

Appendix 3B: In-depth interview guideline with DIC's service providers

ID of interview:

Date:

Time:

Place of interview:

DIC coverage area:

Name of interviewer:

Background characteristics

Barriers in service delivery to FSWs

- What type of training do you have to provide DIC services? Did you receive any training after joining in your current position? If yes, please, describe details (Probe: type of training, duration, content, any more comments).
- What type of services do you provide in DIC? Please, describe details. Do you think the services you are providing to FSWs are adequate? If yes, why do you think? If no, please, describe what are the services need more to make adequate?
- What type of logistics and equipments are you required to provide your services? Do you have all required logistics and equipments? If no, please describe what type of logistics don't you have? Please, also describe the reasons behind not having all required logistics and equipments?
- Do you need any more support from your organization to provide better services? If yes, what type of services do you need?
- Please, tell us about the whole functions of a DIC. Please probe following:

- What type of SRH services provide by DIC to FSWs?

- What are the modes of providing services (static/satellite clinic services)? How does it function?

- How many human resources have in a DIC? What is their minimum qualification to get recruited? Are all required man power is available? If no, why not?

- Do you think there are barriers to implement DIC services? If yes, what are those barriers? How to overcome those barriers?

- Do you think, FSWs are getting benefitted for DIC services? If yes or no, please describe why do you think so?
- Do you think, there are problems or constraints to provide services to FSWs? If yes, what type of problems do you think? What are your suggestions to overcome the problems or barriers?
- Do you think, there are problems or constraints to receive services by FSWs? If yes, what type of problems do you think? What are your suggestions to overcome the problems or barriers?
- Is there any referral linkage with higher level health facilities? If yes, for what type of health problems, the patients are usually refereed from a DIC? Who make the referral decision? Where does DIC refer the patients? Are there any problems or barriers to receive services from referral facilities? If yes, what are those problems? How to overcome those problems?

Appendix 4: Workshop materials

Appendix 4A: Invitation letter to the Chair

icddr,b

May 22, 2016

Dr. Khandoker ATM Forhad Hossain
Line Director
National AIDS/STD Programme (NASP)
Government of the People's Republic of Bangladesh

Subject: Invitation to attend as the Chair in a workshop of a study on sexual and reproductive health of female sex workers.

Dear Sir,

We are pleased to inform you that our colleague Ms Tasnuva Wahed is pursuing her PhD degree from the College of Public Health Sciences, Chulalongkorn University, Bangkok, Thailand. Apart of her PhD assignments, she is conducting a thesis study titled, "A mixed method study on barriers in reproductive health service delivery for and service utilization by the female sex workers of Bangladesh: Translating findings to policy brief". A Workshop **to identify programmatic barriers in implementing sexual and reproductive health (SRH) interventions targeting female sex workers (FSWs) and to formulate policy recommendations** under the thesis study will be held on Thursday, 02 June, 2016 from 10:00 am to 12:30 pm at TRAction Conference room 4th floor, icddr,b Mohakhli, Dhaka.

It would be an honor to have you as the Chair in this workshop. Your guidance and support is important for success of this event.

Thank you for your kind cooperation.

Sincerely yours,

Received
24.05.16

Dr. Abbas Bhuiya
Deputy Executive Director and
Senior Director, Health System and Population Studies Division,
icddr,b, Mohakhali, Dhaka

GPO Box 128, Dhaka 1000, Bangladesh.
For Packages : 68, Shaheed Tajuddin Ahmed Sarani, Mohakhali, Dhaka 1212, Bangladesh.
Phone : 880-2-9827001-10, Web : http://www.icddrb.org, Fax : 880-2-9827077

Appendix 4B: Invitation card to the participants

icddr,b

Workshop

You are cordially invited to attend an Workshop of the study titled, **"A mixed method study on barriers in reproductive health service delivery for and service utilization by the female sex workers of Bangladesh: Translating findings to policy brief"** to be held on Thursday, 02 June, 2016 from 10:00 am to 12:30 pm at the TRAction Conference room 4th floor, icddr,b, Mohakhali, Dhaka.

Dr. Khandaker A. T. M Farhad Hossain, Director National AIDS/STD Control (NASC) & Line Director National AIDS/STD Programme (NASP), DGHS, MOHFW has kindly consented to grace the occasion as the Chair.

Dr. Abbas Bhuiya
Deputy Executive Director &
Senior Director, Health System & Population Studies Division

icddr,b

Workshop

A mixed method study on barriers in reproductive health service delivery for and service utilization by the female sex workers of Bangladesh: Translating findings to policy brief

Venue: TRAction Conference room 4th floor, icddr,b
June 2, 2016
Programme

10:00-10:30	Registration and Tea	Participants
10:30-10:35	Welcome address	Dr. Abbas Bhuiya Deputy Executive Director, icddr,b
10:35-11:00	Presentation: Sharing of preliminary findings of the study	Tasnuva Wahed Assistant Scientist, icddr,b and PhD candidate, CPHS, CU, Thailand
11:00-11:20	Open discussion: Barriers in implementation of SRH services	Facilitated by Dr. Abbas Bhuiya
11:20-11:40	Open discussion: Possible solutions and recommendations	
11:40-12:15	Open discussion: Policy implications/Future steps	
12:15-12:25	Concluding remarks by the Chair	Dr. Khandaker A. T. M. Farhad Hossain Director NASC & Line Director NASP, DGHS, MOHFW
12:25-12:30	Vote of thanks	Dr. Tasnim Azim Director, Programme for HIV, icddr,b
12:30-13:30	Lunch	

Appendix 5: Budget

Period: 18 months

Description		# of Person	Effort	Monthly Rate	Year-1		Year-2		Total Cost in US$
					Month	Amount	Month	Amount	
Personnel:									
Tasnuva Wahed	Principal Investigator	1	7%	2,100	18	2,646	8	1,317	3,963
Ratana Somrongthong	PhD Advisor	1	15%	-	10	-	8	-	-
Anadil Alam	Assistant Scientist	1	3%	-	5	-	4	-	-
Dr. Nazmul Alam	External Investigator	1	10%	-	10	-	8	-	-
To Be Named	Sr. Research Officer (qualitative)	1	25%	853	4	853	0	-	853
To Be Named	Field Assistant (Qualitative transcription)	1	100%	229	2	458	0	-	458
To Be Named	Field Assistant (Quantitative)	4	100%	229	2	1,832	0	-	1,832
To Be Named	Data manager/Statistacian	1	5%	-	5	-	0	-	-
To Be Named	Field Assistant (Data entry)	1	100%	200	3	600	0	-	600
To Be Named	Administrative officer	1	5%	625	5	156	4	140	296
Sub Total:						**6,545**		**1,457**	**8,002**
Travel:									
Local Travel						451		-	451
International Travel								698	698
Sub Total:						**451**		**698**	**1,149**
Supplies and Metarials:									
Office Stationary and Supplies						600		50	650
Sub Total:						**600**		**50**	**650**
Other Direct Cost:									
Communication						100		100	200
Printing and Publication						200		210	410
Meeting/Workshop						500		550	1,050
Training						100		-	100
Sub Total:						**900**		**860**	**1,760**

Description		# of Person	Effort	Monthly Rate	Year-1		Year-2		Total Cost in US$
					Month	Amount	Month	Amount	
Total Direct Cost						**8,496**		**3,065**	**11,561**
Total Indirect Cost@10%						-		-	-
Total Cost									11,561

Appendix 6: Policy brief

Service availability and accessibility for FSWs is essential to achieve SDG Goal 5.6 "Ensure universal access to sexual and reproductive health"

Tasnuva Wahed[1,5], Anadil Alam[2], Salima Sultana[3], Nazmul Alam[4], Alessio Panza[1], Surasak Taneepanichskul[1], Nanta Auamkul[1], Ratana Somrongthong[1*]

[1]College of Public Health Sciences, Chulalongkorn University, Bangkok, Thailand
[2]Maternal and Child Health Division, icddr,b, Dhaka, Bangladesh
[3]HIV/AIDS Sector, Save the Children, Gulshan, Dhaka, Bangladesh
[4]University of Montreal Hospital Research Center (CRCHUM), Montreal, Quebec, Canada
[5]Research to policy Limited, Mirpur, Dhaka, Bangladesh

Key Messages (Policy Brief):

- Except condom, use of other contraceptives was very poor (15% to 21%)
- The dual protection of contraception (Condom plus any other modern method) was only 21.8%

- About 15.5% had an abortion within last one year
- For profit private clinic/hospitals (35.4%) and public clinic/hospitals (23.9%) were main sources of management of abortion
- About 57% of having an abortion, reported post abortion complications
- About 9% of respondents were pregnant at the time of interviews
- About 75.8% of them mentioned having a plan to continue the pregnancy up to childbirth
- About 8.3% FSWs had a childbirth within last one year
- Only 27.7% had four or more ANC visits during last pregnancy
- Almost all FSWs reported having any complications during last pregnancy
- About 39% FSWs had delivery at their home/place of living
- About 50.8% FSWs did not have a PNC visit
- Almost all FSWs had ever heard about HIV
- About 71.1% FSWs reported using condoms
- A greater proportion of FSWs sought care from DICs (60.1%) for management of symptoms of STIs compared to other formal healthcare sources (1.4% to 14.5%)
- Cost of services/lack of money, feeling shameful to get SRH services, lack of friendly attitude and behavior of service providers were main barriers of utilization of services by FSWs
- Lack of SRH services, poor referral systems were main barriers according to service delivery point of views
- A very low proportion of FSWs had more than 50% satisfaction scores with formal healthcare

Executive summary (Policy Brief):

Background

There is an increasing trend in the FSWs (FSWs) population in many Asian countries, as women are often entering the sex trade at younger ages than in the past. In Bangladesh, a small country in Asia, approximately 74000 FSWs are operating in

brothel, hotel, and residence or on the streets. These FSWs are most at risk of mortality and morbidity related to SRH(SRH) which include HIV/AIDs, STIs, and unsafe abortion including other maternal health problems. This study aimed to document SRH related practices by FSWs, particularly on contraceptives, abortion, pregnancy, use of maternal healthcare services and STIs (STIs) and the barriers FSWs in Bangladesh face with regard to accessing SRH care, and to assess the satisfaction with the healthcare received with the aim of developing recommendations for action.

Methods

A mixed method study comprising of qualitative and quantitative methods of data collection had been implemented between March 2015 and September 2016 in Dhaka city of Bangladesh where community based drop-in-centers (DICs) were operating for STI/HIV prevention intervention among FSWs. The study population included street, hotel and/or residence based FSWs of reproductive age (15-49 years). It also included policy makers, researchers and key personnel of organizations which were currently providing services for FSWs including DIC staffs. About 731 FSWs were surveyed using a stratified sampling technique. About 14 in-depth interviews with FSWs and 9 in-depth interviews with service providers were also conducted. A workshop with 23 participants consisted of policy makers, researchers, program implementers was conducted to formulate recommendations. SRH-related service utilization rates and reported barriers faced in service utilization were main outcome variables. *Descriptive statistics,* Pearson's Chi-Square and Fisher's Exact test, one way ANOVA analysis were used for quantitative data analysis. Atlas-ti data management software and content analysis was done for qualitative data analysis.

Result

Of 731 FSWs interviewed, 45% were 25 to 34 years old, 45% had no education and64% were married. Around half of the respondents had a daily income of 600 BDT (7.6 US$)or less per day. About 47% of them were living in residential while around one-fourth of them live on the street. About 36.8% respondents were involved in sex trade for 3 to 7 seven years. The majority (71.4%) of the FSWs were engaged in sex act for 4 or more times per day.

Greater proportions (91%) of FSWs were using short acting methods, condom (71%), oral pill (21%) and injection (16%). The reported use of long acting and permanent methods (LAPM) - Intra-uterine device (IUD) (1.5%), implant (4.7%) or female sterilization (4.5%) was very low (11%). About 61.3% of 731 FSWs reported SRH-related experiences in the past one year, including abortion (15.5%), ongoing pregnancy (9.0%), childbirth (8.3%) or any symptoms of STIs (41.6%). Among FSWs who had an abortion (n=113), the most common methods included menstrual regulation through manual vacuum aspiration (47.8%), followed by Dilation and Curettage procedure (31%) and oral medicine from pharmacies (35.4%). About 57.5% of 113 cases reported post abortion complications. Among FSWs with delivery in the past year (n=61), 27.7% attended the recommended four or more antenatal care visits and more than half did not have any postnatal visit.

Of 731 FSWs, 353 (51%) reported facing barriers when seeking sexual and reproductive healthcare. Financial problems (72%), shame about receiving care (52.3%), unwillingness of service providers to provide care (39.9%), unfriendly behavior of the provider (24.4%), and distance to care (16.9%) were mentioned as barriers. Only one-third of the respondents reported an overall satisfaction score of more than fifty percent (a score of between 9 and16) with formal healthcare.

Inadequacy or lack of SRH services and referral problems (e.g., financial charge at referral centers, unsustainable referral provision, or unknown location of referral) were reported by the qualitative participants as the major barriers to accessing and utilizing SRH care. Adopting sustainable and effective strategies to provide accessible and adequate SRH services for FSWs was prioritized by workshop participants.

Conclusion and recommendations

There was substantial unmet need for SRH care among FSWs in urban areas in Dhaka, Bangladesh. Therefore, it is important to integrate SRH services for FSWs in the formal healthcare system or integration of abortion and maternal healthcare services within existing HIV prevention services.

Short report (Policy Brief)

Introduction:
FSWs (FSWs) are most at risk of mortality and morbidity related to both SRH(SRH) problems which include unwanted pregnancies, unsafe abortion, maternal health problems, STIs (STIs) including HIV/AIDs. The global estimation of FSWs is rarely publicized with the population data (1). A report showed that there is an increasing trend in the size of the sex worker population in many Asian countries where women were entering the sex trade at younger ages than in the past (2). About 74,300 FSWs (0.22% of 15-49 aged female population) were operating in brothels, hotels and residential settings, and on the street in Bangladesh (3). Globally, most of the SRH interventions for FSWs have primarily focused on HIV prevention which includes condom distributions; HIV testing and counseling; provision of antiretroviral therapy (ART); STIs (STI) education, screening, and syndromic or aetiological management; and general or primary health care services (4-6). Health programmes for FSWs in Bangladesh are largely focused on STI/HIV prevention interventions. With the stewardship of the National AIDS/STD Programme (NASP), many Non-Governmental Organizations (NGOs) are implementing community based fixed Drop-in-centers (DICs) which distribute condoms and lubricants, one to one or group counseling and other behavior change activities, HIV testing, and management of STIs (STIs) (7,8).The sex profession of FSWs is either illegal or semi-legal in most of the countries, and therefore, their SRH needs are usually ignored and get low priority by formal healthcare systems. This isolation create hardship in their health and wellbeing and SRH in particular. Thus, to achieve universal access to SRH care and to improve the health and well-being of vulnerable and marginalized populations, FSWs need special attention so that they have access to service.

Data for this policy brief was collected through two phases. Phase I data collection included literature review, a quantitative survey with 731 FSWs, qualitative 14 in-depth interviews with FSWs and 9 in-depth interviews with service providers. Phase II data collection included a Workshop to identify barriers in implementation of SRH related services for FSWs, re-examining the recommendations which were prepared through phase 1 data collection (eg., survey and qualitative interviews) and to formulate better and acceptable recommendations for policy implication.

Policy implication 1: Increasing use of modern contraceptives and dual protection of contraception through making services available at community based Drop-in-Centres

- The available modern contraceptive method mix in Bangladesh includes pills, injectables, condoms, intrauterine contraceptive device (IUCD), implants, and female and male sterilization. The need for contraceptive methods to prevent unwanted pregnancies among FSWs gets very limited attention

- The majority (71% of 665 FSWs) of hotel, street and residence-based FSWs in our study (Table 1) were using condom which is in the middle of the range of other study findings for Bangladesh (59%-93%) and many of the countries of the world (51%-84.5%). As Bangladesh currently has a condom distribution programme for FSWs to prevent HIV, it is not surprising that condom use is quite common among our respondents. Todd et al showed that consistent use of contraception (40%) was much lower than reported use of contraception (86%) (9).

- The use of other contraceptive methods (Table 1) (oral pill, 21%; injection, 16%; Intrauterine device (IUD),1.5%; implant, 4.7%; female sterilization, 4.5%) was very low similar to studies in Moscow, Russia and Colombia (6,10) which indicated either insufficient availability of services or barriers in accessing services.

- FSWs' high number of sex acts with multiple partners may require dual protection- (i) condom use for preventing sexually transmitted infection and (ii) any other method use to prevent unwanted pregnancies.Dual protection was only reported in 22% of women in our study, much lower than Katz et al's study in Dhaka city which found dual protection rates of 44% among hotel based and 30% among street based FSWs (11). One explanation for the difference may be that Katz et al did

not include residence based sex workers in their study. However, this dual protection status among Bangladeshi sex workers is better compared to other countries (8-12%) (10,12).

Table 1: Status of modern contraceptive methods use among hotel, street and residence based FSWs of Dhaka who were not currently pregnant

Contraceptive methods*	%
	n=665
Oral pill	20.9
Condom	71.1
Injection	16.2
IUD	1.5
Implant	4.7
Female sterilization	4.5
Dual protection (condom plus any other modern methods)	21.8

* Multiple response

Recommendations 1

i) The contraceptives supply of oral pills and injectables should be made available to the existing paramedic in the DIC
ii) Integration of FP services with existing HIV prevention intervention through establishing existing FP satellite clinic services weekly a day in the DIC
iii) Regular group discussion and counseling on long-acting or permanent methods and the importance of dual protection among FSWs should be added to existing DIC services
iv) A referral system should be developed by DIC with FP clinic where implant, IUD and Tubectomy services are available

Policy implication 2: The high prevalence of abortion and complications among FSWs highlights about need of ensuring safe abortion services including post abortion care

- A total of 113 or 15.5% of total FSWs surveyed (n=731), reported having an abortion in last one year. A study conducted in Uzbekistan reported doing abortion (26.8%) at the second stage of pregnancy by FSWs (9). However, our findings about high abortion was supported by another recent study by Katz et al where abortion rate among FSWs in Dhaka was 13 to 16% (11). Several other countries in the world indicated more than 50% abortion history in FSWs' life time, support also our findings (6,9,10,13,14).

- Menstrual regulation (MR) by manual vacuum aspiration (MVA) has been implemented in Bangladesh with national family planning programme in 1979 for continuation of pregnancies within 8 to 10 weeks after a woman's missed period. An induced abortion can also be offered with considering only condition that is to save one's life (15).Tablets (eg., Oxytocin or misoprostol) at earlier pregnancies (>6 weeks pregnancies) and Dilation and Curettage(D & C) for advanced pregnancies (7 to 10 weeks) are standard methods for induced abortion in Bangladesh. Studies indicated that women often used foreign objects at the uterus, abortifacient tablets from drug shops or unqualified allopathic practitioners for abortion (16). Another study documented unofficial abortion practices by providers for women who did not meet recommended criteria for doing an abortion (17). Management of MR/Abortion of FSWs in our study reflected the use of existing practices.

Table 2: Management of abortion related complications (n=65)

Characteristics	%
Suffered from any complication after having an MR/Abortion (n=113)	
Yes	57.5
No	42.5
Type of complications suffered* (n=65)	
Excessive bleeding	49.2
Severe weakness	43.1
Lower abdominal pain	40.0
Excessive anaemia	12.3
Other (blurry vision/STIs/foul smelling discharge/incomplete abortion)	24.6
Type of providers whom sought for management of complications* (n=65)	
Qualified doctor	35.4
Paramedic/Family Welfare Visitors (FWVs)	26.2
Drug sellers	18.5
Nurse	13.8
No one	12.3

*Multiple response

- Private health facilities (for profit) (35.4%) was the first sources of abortion care, followed by public health facilities (23.9%) as second places for care seeking. NGO facilities (15.0%), drug shop/pharmacies (16.8%) and home by unskilled providers (16.8%) were used by almost same proportion of respondents. About 9.7% respondents sought care from home by skilled providers (Data not shown). Qualitative data explained that FSWs had to pay more than usual for abortion service and received judgmental attitude from formal healthcare providers which suggest conducting periodical training of service providers to change their attitude toward FSWs.

- Complications were developed among more than 50% FSWs which either made possibility of doing abortion after the recommended pregnancy duration or absence of post abortion care. About half (49.2%) of them (n=65), were suffered from excessive bleeding. Lower abdominal pain (40.0%) and severe weakness (43.1%) were also reported by a good proportion of respondents. About one-fourth (24.6%) FSWs had blurry vision or STIs (STIs) or foul smelling discharge or incomplete abortion (Table 2).

Recommendations 2

i) Regular group discussion and counseling in the DIC on preventing abortion at advance stages of pregnancies
ii) Health education about danger signs of post abortion including post abortion care should be taken into account for FSWs
iii) Regular group discussion and counseling on use of contraceptive to prevent unwanted pregnancies
iv) Existing referral system of DIC for abortion services should be strengthened and sustained

Policy implication 3: FSW focused maternal health intervention should be developed and introduced for increasing recommended four ANC and four PNC at recommended time including skilled delivery care

- About 9% of 731 FSWs were found currently pregnant. Of 66 pregnant women, 51.5%, 10% and 6% were confirmed their pregnancy through pregnancy strip, urine test and skilled health provider's checkup respectively. They were at first trimester (0-3 month) (36.4%), 2nd trimester (34.8%) and 3rd trimester (28.8%) of pregnancies. About three-fourth (75.8%) of the respondents had a plan to continue the pregnancy while about 12% had planned to terminate the pregnancy. Forty eight percent respondents were continuing their sex trade during current pregnancy and the main reason was earning as a regular source of income (Data not shown).

- About 8.3% of 731 FSWs had childbirth within a year. It is recommended that pregnant women without having complications or risks factors are required to make at least 4 ANC visits during 16 weeks, 24-28 weeks, 32 weeks and 36 weeks of pregnancies (18,19). Our study findings indicated that 27.7% FSWs had four or more ANC visits (Data not shown)which is much lower compared to national coverage which showed 45.5% urban dwellers visited 4 or more ANC visits (20).

- All but one respondents (n=61) mentioned having a complications during last pregnancy where severe weakness (60.7%), excessive bleeding (41.0%), blurry vision (26.2%), headache (24.6%) were frequently reported. About 13% respondents reported suffering from STIs during pregnancy (Data not shown).

- The proportion of FSWs having a home birth (39.3%) (Table 3) was quite similar to national findings where 42.3% of urban residents had a home delivery (20). About one-third of respondents (n=61) reported having their childbirth by unskilled attendants which included traditional birth attendants or their relatives. Seven of 37 facility deliveries used C-section which means 1 in 5 FSWs with a facility delivery have a chance to go for C-section for severe complications. There is no research articles found which describe childbirth experiences of FSWs, therefore, this finding is useful for the safe motherhood programme to understand the situation and consider to initiate target specific maternal health programme for FSWs.

- Although there was 100% live birth, 83.6% had a healthy newborn and 16.4% (10 cases) reported a sick baby. Of 10 sick babies, five cases (50%) were born with low birth weights, 3 cases were lethargic or unable to feed and 3 had birth defect or birth injury. The proportion of boys (50.8%) and girls (49.2%) among the babies of 61 deliveries was almost same (Table 3).

- The FSWs were asked whether they visited any medical persons for checkup within 42 days after their last childbirth. The results showed that around half of the respondents did not have a postnatal visit after childbirth. However, about 23% FSWs made at least two or more PNC visits. They mainly made their PNC by qualified doctors (56.7%), nurse (33.3%) and paramedics (26.7%) (Data not shown).

Table 3: Delivery care of FSWs who had a childbirth in last one year (n=61)

Characteristics	**%**
Areas of childbirth	
Within their locality (In Dhaka city)	80.3
Outside of their locality (In Dhaka city)	8.2
In native village/outside Dhaka city	11.5
Places of trial for childbirth*	
Home	65.6
Not-for-profit private health facilities (NGO)	32.8
Public health facilities	16.4
For profit private health facilities	16.4
Places of childbirth	
Home/ Place of residence	39.3
Not-for-profit private health facilities (NGO)	27.9
Public health facilities	16.4

Characteristics	%
For profit private health facilities	16.4
Type of birth attendants	
Skilled	54.1
Trained traditional birth attendants	11.5
Unskilled	34.4
Type of delivery	
Normal vaginal delivery without Episiotomy	75.4
Normal vaginal delivery with Episiotomy	11.5
C-section	11.5
Assisted vaginal delivery (Forcep)	1.6
Outcome of delivery	
Live birth	100.0
Stillbirth	0
Physical condition of the newly born baby	
Healthy baby	83.6
Sick baby	16.4
Type of health problems of the newly born baby (n=10)*	
Low birth weight (<2.5 kg wt)	50.0 (5 cases)
Lethargic/unable to breast-fed	30.0 (3)
Birth defect/birth injury	30.0 (3)
Type of health providers who provided treatment to the babies	
Qualified doctors	60.0
Paramedic	30.0
Traditional birth attendant	10.0
Sex of the babies (n=61)	
Boy	50.8
Girl	49.2

* Multiple responses

Recommendation 3

i) Integration of existing MNCH satellite clinic services with existing HIV prevention services at the DIC for increase accessibility to ANC and PNC services
ii) Implementing a separate maternal health corner in the existing DIC
iii) Developing referral systems for management of maternal complications including delivery care of FSWs
iv) Promoting deliveries by skilled attendants should also be considered

Policy implication 4: Sustainability of existing HIV prevention and management intervention is a key requirement for keeping current steadiness on spread of STI/AIDS among FSWs

- The unhealthy practices, for example, use of traditional healers, herbalists, injection doctors, drug sellers or pharmacist for management of STIs is common in this region including other developing countries (21-23). However, our study reflects an improved situation regarding knowledge on HIV/AIDs (eg., 99% heard about HIV) and relatively good care seeking practices on STI management among FSWs. The majority of respondents sought care from DIC which goes with findings from Laos with reporting 53% care from DIC (24). While care seeking for STIs by male partners of FSWs in Bangladesh was dominated by pharmacies, the FSWs used pharmacy only among 16% cases (25). This findings implied the successful role of DICs in providing STI services among FSWs. Therefore, sustainability of existing HIV prevention and management intervention is a key requirement to continue such good practices among FSWs of Bangladesh.

Table 4: Experiences of FSWs on STIs (STIs)

Characteristics	%
Had any STI experiences in last one year (n=731)	
Yes	41.6
No	58.4
Type of symptoms suffered* (n=304)	
Vaginal discharge	73.7
Ulcer in genital area	45.7
Itching in vagina	10.5
Lower abdominal pain	4.3
Inguinal swelling	3.0
Sought any treatment	
Yes	97.4
No	2.6
Area of treatment (n=206)	
Within their locality (In Dhaka city)	90.5
Outside of their locality (In Dhaka city)	9.5
In native village/outside Dhaka city	1.7
Sources of healthcare seeking (n=206)	
DIC	60.1
Drug shop	16.9
Not-for-profit private health facilities (NGO)	14.5
Public health facilities	11.1
For profit private health facilities	6.8
Home by unskilled providers	6.4
Doctor's private Chamber	3.0
Home by skilled providers	1.4

* Multiple responses

Recommendations 4

i) Government should allocate or share the cost of DIC services for sustainability. For this purpose, Government can set some standard criteria to operate DIC (eg., yearly performance indicators) and, based on those criteria, there should be option for DIC to receive Government registration. The Government registered DIC may get some incentives, such as-eligible to get partial salary share of staffs, additional infrastructure establishment support.
ii) International Donors also should keep their financial support
iii) Promoting public-private partnership for management of STI/AIDS
iv) Investigating easy diagnostic tools to identify different type of STIs at the DIC level

Policy implication 5: Short term and long term evaluation activities should always counted as an integral part of existing SRH related interventions to receive feedback for overcoming barriers and improving outcomes. A nationwide SRH related survey targeting FSWs should also be conducted in every two years.

- Our study pointed out that majority of the FSWs who sought formal healthcare for SRH services faced any barriers and had low level of satisfactions with formal healthcare services

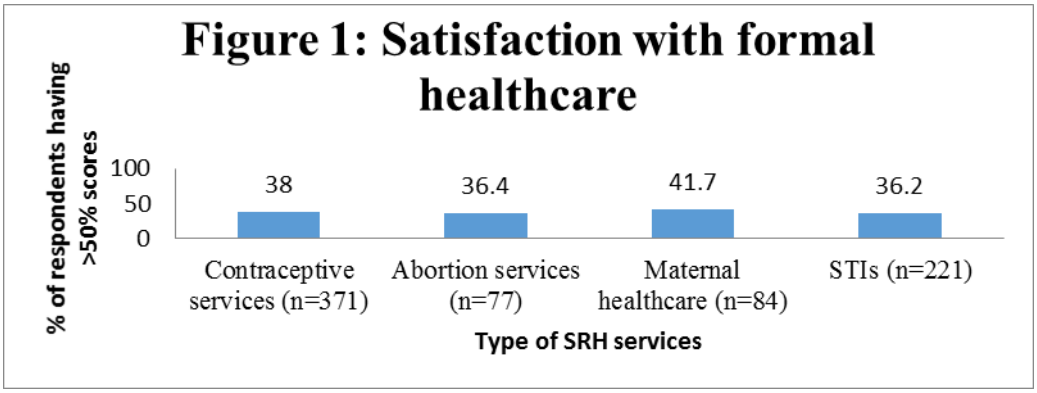
- One of the two goals of health system is fair financial contribution in healthcare with notion that individuals or households in the health system will not be ruined by catastrophic payment in health care where poor should be subsidized their health related cost by rich (26). As with our study, lack of money or cost of healthcare, higher fees than usual has been a common problem reported from different part of the world, such as in Nepal, China, Laos, Vietnam, Russia (24,27-31).

- Like our study findings, several other studies also indicated that FSWs themselves perceived shame to get services with general population and healthcare providers had judging attitude toward them (27,32,33). Stigma, discrimination and fear of recognition was felt by FSWs where they did not like when healthcare providers asked them personal questions like sex trade and sex history (31).

- A study conducted in Laos showed that FSWs even did not feel comfortable in the Drop-in-Centres which were established within public hospitals as there were chances to be seen by general public (24). In Bangladesh, there is only static DICs available where target beneficiaries are only FSWs. However, no SRH but STI/HIV prevention services are available in these DICs. Lack of other SRH services (eg., contraceptives, menstrual regulation/abortion, maternal healthcare) was identified as a barrier which is similar to another study findings conducted in Bangladesh (11).

- A referral system to overcome this barrier and to connect FSWs with the health system is a good option to improve accessing the care (30) . DICs in Dhaka city already developed a referral system with other NGOs. However, this referral system seemed weak due to inadequate referral support, financial charge at referral centres, unsustainable referral provision, location of referral is not known by beneficiaries.

- Patients' satisfaction with the healthcare is an important indicator of assessing service quality (34). In our study, most of the respondents received lower scores on satisfaction with formal healthcare. Several studies identified the need of privacy and confidentiality issues with the health service provision to accept SRH services or increase healthcare clinic utilizations (31, 35-37). In our study, although majority of the respondents showed 'just satisfied (neither much satisfied nor less satisfied)' regarding privacy, confidentiality issues, a good proportion of women were less or not satisfied with maintaining privacy and confidentiality at the formal healthcare, especially, during seeking care for abortion and maternal health services. Respondents also had a limited options to make choice of healthcare providers or health centres in this poor-resources setting of the country. Even they were not much satisfied with the basic amenities needs (eg., rest room, access to water, toilet).



- The formal healthcare was defined in this study as 'if a women sought care from recommended healthcare sources, such as-public, private for profit, private not for profit health facilities including healthcare by qualified providers from home'.
- A total of eight items were used to calculate satisfaction which included dignity, privacy, autonomy, confidentiality, prompt attention, access to social support networks during care, basic amenities and choice of institution/care provider (38)
- A scoring system on the three points satisfaction scale was generated as following: highly satisfied/moderately satisfied=2, satisfied=1, less satisfied/not satisfied=0. Based on these given scores, minimum and maximum possible score was 0 and 16 respectively. The proportion of respondents who received at least 50% scores, that means, respondents having 9-16 scores was also calculated using descriptive statistics

Recommendation 5

i) An SRH related health insurance policy should be implemented to overcome financial barriers. Developing collaboration with health insurance companies can be considered in this regard.
ii) Provision of monthly training and counseling session for SRH related service providers to sensitize them to increase their friendly behavior to FSWs.
iii) Integration of SRH services with the Drop-in-Centre services should be tested so that the FSWs do not feel shame to seek services and adequacy of SRH services for FSWs can be confirmed.
iv) Regular advocacy meetings with community people, religious leaders as well as law enforcement group should be carried out to prevent harassments by them.
v) Existing referral system should be strengthened and sustained
vi) A patient satisfaction tool should be introduced in the health facilities to monitor quality of SRH services
vii) Exploring programmatic and financial sustainability options on SRH services for FSWs

Policy implication 6: Readiness and responsiveness of Government and other formal healthcare system to SRH care of FSWs is priority need for sustainability of DIC services and increase accessibility to SRH

- The information obtained through a workshop revealed that DIC is completely a private model that is supported by international Donors, especially, by Global Fund. It was established for prevention of HIV targeting key populations (eg., FSWs, transgender) as these population do not feel comfortable with general health system. This model successfully contributed to prevent STIs/AIDs, that is why, the disease burden of STI/AIDS remain low. On the other hand, the economic condition of the country has been improved over years. Considering this economic development and low disease burden, the Global Fund is reducing their fund support with expectation that Government will take over this Drop-in-Centre based healthcare delivery model for sustainability to keep low STI/HIV in the country. However, the main problem includes non-readiness of Government in this regard because no initiative was taken previously for involvement of Government with the existing STI/HIV prevention by DICs in all these years.

- The impact of fund crisis was also described in details in the workshop. One participant explained that Donors reduced the budget allocation almost 50% and as a result, they are working using DIC model but into a modified way by reducing the human resource and the coverage of FSWs as well. The number of target FSWs were reduced to 26,000 from 29,000. Even it's quite difficult to accommodate them into current budget. Coverage of providing services reduced to 35% while 65% remain uncovered. Govt. should covered this uncovered sex workers and take initiatives addressing their need.

- Regarding the recommendation about integrating SRH services with existing DIC services, one participant pointed out the need of structural development, such as expansion of existing infrastructures, extra manpower and healthy budget. She added that generating support from insufficient workforce and confirming more services are confronting. Even after confirming the requested services, quality services also should be ensured. However, she said that just reorganizing the existing settings could be possible right this moment. If it is expected more, paramedic (service provider) could have provided information services. Another participant mentioned that, within existing setup, DIC should provide valid referral link to the patients. They should just inform where the particular services are available. As well as, may arrange campaign in every 3 months. However, the former participant recommended assessing the feasibility of introducing any SRH intervention in the DIC to measure impact on existing resources including workloads of staff. The concern about integrating contraceptive services with existing DIC service was showed by a participant as- *"If other contraceptive services will make available in the DIC, is there any possibility to reduce condom use which is essential to prevent STIs?"* Testing feasibility, acceptability and effectiveness of other contraceptive services integration in the DIC before scale up is needed to find out the answer of such concern. Another participant suggested that integration of satellite services for injectables contraceptives once in every three months will be possible in the DIC. One participant recommended integration with NGO health service delivery project (NHSDP) for contraceptive and maternal health services as they are providing these services in Dhaka.

- The participants also discussed some more barriers about implantation of SRH services. For example, the Government and other healthcare providers are not well trained to provide services to FSW. She cited as,
  "*Service providers of DIC are FSW friendly. They are well trained of accommodating friendly environment. Whereas, the Govt. service providers are not well trained to provide services to FSW. Therefore, govt. service providers need an orientation. She asked, why don't FSWs feel free, though services and medicines are available? Why should we confirm all the services from DIC? Why don't other facilities? We should answer these questions to solve the problems. Normally, FSWs are seeking treatment as human, not using her identity as sex workers but when their identity exposed, treatment formula changed. They are neglected and stigmatized*."

- One participant mentioned that, govt. wanted to diminish brothels without considering its impact in the society. She said that govt. could eradicate brothels and FSWs but about 3.7 millions clients which is the highest number of clients in Asia will be still existed. So, considering the social impact, govt. should take initiatives to make SRH related services easily accessible to FSW. Discussants added that, govt. is taking initiatives to ensure gender equity into the 5 year operational plan. To ensure equity and gender, social inclusion of FSW are needed, otherwise the problem will sustain. One participant mentioned that in the context of Bangladesh, it's quite impossible to expect, govt. will create ideal situation for FSW within formal healthcare system. So, fight for such an environment with the govt. and policy level stakeholders is needed. Moreover, the total funding for DIC coming from abroad but funding are squeezing may be vanished in near future. So, we should make them sustainable.

- The participants mentioned that the recommendation generated through phase 1 are very relevant and true, however, the sustainability of DICs and readiness of Government to support DIC services should be priority recommendations to consider by the policy makers.

Recommendations identified through this workshop:

i. Govt. should come forward to take the responsibility to make the SRH services available, affordable and accountable for FSWs.
ii. Conduct orientation meeting and workshop with the Government key personnel including national policy makers for acceptability and readiness to support DIC services
iii. Integration of existing NGO health service delivery project (NHSDP) for contraceptive and maternal health services with DIC services should be tested.
iv. Extra fund, manpower and infrastructures will be needed for making SRH services at DIC
v. There is an initiative to ensure gender equity at the five year operational plan of Govt. health services. Under this initiatives, we should fight for inclusion of FSWs with formal healthcare system
vi. International Donors also should continue their fund support at least until the Government is not prepared to take responsibilities of DICs

Conclusion

This is the first report in Bangladesh which documented service availability, barriers and level of satisfaction for SRH services among FSWs of urban areas. However, the findings of this study may not be generalizable to FSWs in rural areas or brothel-based FSWs. The small sample size with the formal healthcare seeking is another limitation also meant to suggest for larger studies in future with better representation. There is also possible that recall or response bias may have influenced the findings because of self-reported data. However, it is now evident that making SRH services accessibility for FSWs is urgently required and activities should be undertaken for preparedness of Government in response to sustainability of DIC. In addition a nationwide survey with FSWs should be conducted as a priority basis to set targets for achieving the Sustainable Development Goal (SDG) 5.6 "Ensure universal access to sexual and reproductive health" by 2030.

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APPENDIX

VITA

Miss Tasnuva Wahed, Founder and Managing Director at the Research to Policy Limited (R2PL), Bangladesh, had more than ten years working experience in formative and operational research. She is an ex-employee of International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) where she carried out large scale research studies using both qualitative and quantitative methods. Before joining icddr,b, she had completed two Master degree (M.Sc. and MPH) under the University of Dhaka where she had gained theoretical concepts on various research tools and methods, the statistical measures, qualitative research technique and how to plan and implement a health intervention program. As she considers herself a mixed method researcher, she is very much comfortable to work using both quantitative and qualitative research techniques. She is participating continually in various trainings and international conferences to develop and update her concept and knowledge on this area. Her contribution as first author and co-author in both international and national peer-reviewed journals may help to describe her commitment on different assignments related to research.

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