# 'But is it feasible?' Perceived barriers to implementing community feedback from marginalized populations for a novel sexual health clinic among healthcare providers

by

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**'But is it feasible?' Perceived barriers to implementing marginalized community feedback for a novel sexual health clinic among healthcare providers**

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PURPOSE: Harm reduction is a proven approach for reducing adverse health, social, and behavioral outcomes, (e.g. lowering incidence rates of HIV, insecure housing, and substance use disorders)among people who exchange sex and transgender individuals. Community collaboration with sex workers and transgender individuals is a key step for healthcare professionals to understand specific wrap-around care needs in order to achieve optimal health outcomes for this population. This qualitative study seeks to understand a group of healthcare professionals' perceptions of barriers after they received community feedback on what to prioritize in a novel sex and gender health clinic that meets marginalized communities' specifications.

METHODS: Employees at a U.S. hospital's inclusive health center who are on the planning committee of a developing sexual and gender health clinic centering care around people who exchange sex and people who identify as transgender, were interviewed after seeing a sex worker community advisory board's list of recommendations for the clinic. COM-B behavioral change model was used to classify perceived barriers and facilitators to implement suggestions

RESULTS: Out of six COM-B components, one third of all barriers were coded as Social Opportunity barriers. The most coded for domain within Social Opportunity was operational & procedural requirements.

CONCLUSION: Hospitals, despite having well-established operational structures, greater funding, and more personnel, are still widely perceived as untrustworthy sites among marginalized

patient groups, compared to community health clinics. Hospital systems may be resistant to change or are slow to adopt new practices. Furthermore, dated and entrenched operational systems are less modifiable to meet the needs of vulnerable patient groups. Therefore, a hospital network may not be the ideal entity to erect a clinic specifically for patient groups that face the most marginalization, particularly sex workers and transgender individuals. The public health significance of this research addresses a critical need for hospital administrations to examine how their policies impede progress toward equitable and accessible care among marginalized patient groups. This analysis aims to encourage other similarly resourced hospitals to assess their own operational procedures' potentiality to inhibit change, and to seek collaboration opportunities with groups that have experience in implementing marginalized populations' feedback.

## Table of Contents

## List of Tables

## List of Figures

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unconditional love and encouragement and for always being there when I needed it the most! You all make a radical new world feel possible.

## Positionality and Disclaimer

I am a cisgender white female from a middle-class background. I identify as queer/bisexual and have a learning disability. I have engaged in transactional sex. I am the second person in my family to obtain a secondary or master's degree. Previous careers included direct client support in nonprofits and documentary journalism. My positionality within this research question is in part impacted, informed and, at times, aided, by these experiences.

Throughout this writing, I use the terms, 'sex worker' (a term coined by Carole Leigh in 1997[1])and 'people engaged in the sex trade' to refer broadly to individuals who engage in sexual activities in exchange for money, services, or other goods. However, it is crucial to recognize that the sex trade encompasses a complex interplay of individual agency, external factors, and varying degrees of coercion[2], and thus cannot be reduced to a monolithic understanding (i.e., not all people engage in sex work for survival's sake, to manage substance use, because they are forced to, etc.[3]) Finally, throughout this writing, populations including those managing substance use disorder, gender and sexual minorities, and people who engage in exchange sex are categorized as "marginalized populations." Each population should be recognized as having their own range of experiences and identities and to not equate one population with another.

See Table 1 to reference details on other frequently used abbreviations and terms.

**Table 1 Terms and Definitions**

| Terms | Definitions |
|---|---|
| **"People in the sex trade" / "People who do sex work"** | *List how mesh term describes sex worker, then cite how sex workers define this term* |
| **CAB** | Community Advisory Board formed during the summer in 2022, comprised of six participants: six had ever engaged in sex work, and three identified as transgender and/or gender nonconforming (Primavera, 2022). |
| **IHDS** | Integrated hospital delivery system. A hospital that is both a health insurance provider and a healthcare provider. Example: Highmark |

# 1. Introduction

## 1.1. Background

Lack of access to safe healthcare spaces is associated with higher prevalence of disease among marginalized populations, particularly among individuals who engage in sex work and individuals whose gender identity or expression is different from their sex assigned at birth (e.g., gender diverse)[4]. For these individuals, hospitals and doctors' offices are often sites of erasure, invalidation, or trauma which can lead to delays in diagnosis and treatment, as well as inadequate or inappropriate care[5]. In Pennsylvania, prostitution's criminalized status is a deterrent for anyone working in the sex trade from entering hospital spaces due to the risk of encountering police presence on hospital grounds and to the lack of trust in hospitals' disclosure policies[6,7]. Transgender and gender diverse (TGD) individuals also face discrimination and bias within healthcare systems in the form of encountering healthcare providers who are uninformed about transgender health issues or who hold negative attitudes towards transgender people, being misgendered, or having their identity or healthcare needs invalidated[8]. In some cases, transgender individuals have reported experiencing physical or verbal abuse in healthcare settings.

Stigma is also a persistent factor in the association of adverse sexual and mental health outcomes and risk behaviors among people engaged in the sex trade, specifically for full-service sex workers (FSSW) and TGD individuals[7]. Physicians' implicit or explicit biases towards a patient's substance use behaviors, sexual activity, or appearance affect the quality and type of care administered[5]. Fear of stigmatization, harassment, prosecution, and violence, among other risks,

factor into the decision-making process for someone engaged in the sex trade seeking a healthcare provider[9].

Care sites that approach healthcare using harm reduction and health equity strategies, however, are more likely to positively impact patient health outcomes. Harm reduction strategies apply evidence-based interventions that aim to reduce negative consequences associated with risk-incurring health behaviors, such as evidence-based, targeted behavioral modifications to decrease risk for adverse effects[10]. Targeted interventions also act as motivators for patients with marginalized identities to maintain routine screenings or wellness visits[11]. Research shows there are economic incentives to managed care organizations (MCOs) implementing harm reduction care strategies, but outcomes are dependent on buy-in from administrators and providers in leadership positions to encourage adoption of new methodologies[12].

### 1.2. Study Site: The Center for Inclusion Health

The Center for Inclusion Health (CIH) is a branch within Allegheny Health Network (AHN) in Pennsylvania that prioritizes such harm reduction healthcare strategies. Formed in 2014 and made possible through AHN Federal 340B program revenue, the Center provides wrap-around services to community members who are systemically neglected in clinical spaces due to their identities (e.g., transgender people), life circumstances (e.g., homelessness, immigrant status, etc.), and/or socioeconomic status[13,14]. The Center was named as one of 45 Centers of Excellence on Opioid Use Disorder in Pennsylvania for its provision of healthcare that can benefit the whole person, in addition to opioid use treatment. Since then, CIH continues to deliver care through a

"patient-driven model" by implementing programs that may decrease incidence of disease through behavioral interventions and low-barrier care models[15].

A planning committee within CIH of eleven healthcare professionals, comprised of social workers, nurse practitioners, physicians, and hospital administrators, formed in 2020 to brainstorm how to create a sexual and gender health center specifically for transgender persons and people who engage in sex work. This committee created a community advisory board (CAB) of six self-identified sex workers in Pittsburgh as part of their planning process. Over two sessions, the CAB compiled a ranked list of recommended services for the planning committee to factor into their proposed clinic plan[9]. My thesis examines the beliefs and reactions of healthcare professionals to the CAB's recommendations. I am unable to share the exact CAB recommendations as the findings are undergoing peer review.

In general, CAB members desired a harm-reduction model of care and prioritized mental health services. Healthcare professionals interviewed from AHN CIH ranged from social workers, nurse practitioners, and administrators which allows my work to capture a broader range of institutional perspectives from within AHN CIH. AHN CIH was chosen as it is the most likely place for low stigma/sex work supportive health care professionals to be working. Healthcare stigma towards sex workers is not novel, what would be more interesting is those who are internally motivated to address the needs of sex workers, and what ongoing barriers exist in that space.

Findings from this study shall inform future working groups attempting to implement novel harm reduction and wrap-around services within an IHDS.

# 2. Methods

## 2.1. Study Design Overview

The Allegheny Health Network Institutional Review Board (AHN IRB) approved this study as a quality improvement and not human subjects research. The aims of this study were to examine perceived barriers and facilitators to implementing community member feedback within an integrated hospital delivery system (IHDS). One-time individual semi-structured interviews with AHN CIH planning committee members involved in the development of a novel sexual and gender health clinic provided qualitative data. As participants had various training levels and some were supervisors or managers of others, interviews were favored over focus groups for their potential to reduce social desirability bias among participants and potential to enhance depth of opinions shared. One-on-one interviews also avoid creating power imbalances that disincentivize participants from marginalized backgrounds from sharing their true feelings[16,17].

This thesis examined how the CIH planning committee interprets current and prospective physical and psychosocial factors as barriers to implementing community member recommendations for a novel sexual and gender health clinic. We did this by interviewing the hospital employees separately to gain a deeper understanding of individuals' perspectives as employees doing harm reduction work within a large IHDS. Interview questions and data analysis focused on participants' experiences, attitudes, and capabilities to offer a broader point-in-time assessment of one hospital group's freedoms and constraints in the context of transforming healthcare delivery.

Participants were identified and recruited via the planning committee listserv, which the researcher had access to due to her position as an ASRI summer intern. Recruitment was a two-step process: (1) All CIH planning committee members received an introductory email describing the nature of this study with an included link to an online scheduler site, and (2) a follow-up email was sent ten days later to remind and encourage more members to participate in the interviews. Participants received no direct benefits or incentives to complete the interview.

The semi-structured interview guide (Appendix 1) contained five domains: Opening, Capability, Opportunity, Motivation, and Closing. Each interview took place over Zoom and lasted between thirty to sixty minutes. All interviews were recorded to a secured cloud and transcriptions were stored on a password protected encrypted online server. Interviews were transcribed verbatim by the lead researcher. Names, roles, and other identifiable phrases were redacted from transcripts to protect participants' identities. We used deductive coding from COM-B and theoretical domains to analyze the interview transcripts. Two researchers coded a portion of the interviews and met to adjudicate discrepancies. The lead researcher then completed coding of all the interviews and used thematic analysis to report themes focusing on barriers and facilitators.

## 2.2. Study Population

Enrollment aims were between 9-12 interviews with AHN staff who worked within the Center for Inclusion Health, who were involved in the development of the novel sexual and gender health clinic, and who had access to virtual meeting capacities. There are twelve AHN staff and faculty on the planning committee. A faculty member on the planning committee also advised this

research so was ineligible for interview; therefore, enrollment capacity was limited to 11 participants. I monitored for thematic saturation of the interviews - which occurs when no new themes are identified during interviews and serves as an indicator that the sample size is robust to address the research question - knowing that our sample size was limited by the group size of the planning committee.

### 2.2.1. Recruitment

Participants were directly recruited due to the author's role as a summer intern within the AHN. AHN CIH planning committee had previously scheduled bimonthly meetings, the lead researcher gave an announcement during this call about the study and asked for participants. Follow-up emails were sent out the same day to all planning committee members re-stating the purpose of the research, the underlying research question driving the interviews, and the details of what would be required of participants. The email included a link to a Qualtrics survey that potential participants could click to indicate interest in giving an interview. As the survey links were sent directly to people already identified as eligible to participate, there was no additional screening process necessary. Users who clicked the Qualtrics link were asked to fill out their demographics (age range, gender, race), employment details (length of employment with AHN, job category, title), and their experience level in their current role. Respondents to the survey received a scheduling request email. A reminder email was sent out one day prior to the interview.

### 2.2.2. Consent Process

All eligible participants were over the age of 18, and involvement in this study presented minimal risk to participants. A consent script was read at the start of each interview, and participants were asked to give an audible verbal consent over video prior to the interview. PDF versions of the consent script were emailed to participants after the session.

## 2.3. Individual Interviews and Survey

One-time semi-structured 1-hour interviews were conducted with CIH planning committee members. Private interviews offered participants an opportunity to reflect honestly without risk of being perceived negatively by colleagues. Questions were formulated using a behavioral change model, whereas the behavior being monitored is the hospital staff's collective action to implement recommendations from community members.

The original IRB-approved interview guide allowed for two sequential individual interviews over a period of four months to track change in participants' perception and understanding of the CAB's needs. Originally, the first interview was scheduled before the planning committee received the CAB's suggestions, and a post-interview was intended to track any changes in participants' perspectives from the first data collection point. However, the committee members received the CAB's suggestions before AHN's IRB approved the study. A third interview guide, which combined questions from the original two guides, was then created

by the study team and the modification to only hold one interview per committee member was approved by the IRB.

Interviews were recorded using Zoom's recording capabilities. Video and audio recordings, and transcriptions of each session were saved to the author's personal password-protected Zoom account. Only audio recordings and transcriptions were downloaded onto the author's work laptop and saved to Microsoft's encrypted cloud service, OneDrive. Audio files and text files of transcriptions were renamed to include the participant's ID number, to which participants were randomly assigned. ID number assignments were matched to the participant's first and last initials and were stored in a password protected OneDrive folder, to which only the author had access. All original files were deleted from the author's Zoom account after audio and text files were downloaded. All mentions of names, job titles, or other identifying information shared in the interview were redacted from the transcript record. Self-referring names were replaced with the participant's corresponding ID number.

Participants were emailed a unique link following their interviews that took them to a Qualtrics demographic survey. Data on participant characteristics, such as sex, age range, job position, education, experience levels, number of years affiliated with the hospital network, and number of employees managed, were collected.

### 2.3.1. Interview Guide: Using the COM-B Framework

Members of the planning committee were interviewed after reading the CAB's final list. The outcome of the committee's proposed clinic is not included in this work; however, this

exploratory study seeks to observe committee members' perceived barriers at a crossroads within the planning committee's process to erect a novel sexual and gender health clinic

The underlying goal of this research question was to ask if the behavior of a hospital system applying the recommendations of a CAB to a new health clinic could be feasible. Therefore interview questions were derived from the capability, opportunity, and motivation behavioral change model (COM-B), a framework derived from psychological theory to explain behavioral change. COM-B is commonly used to identify internal and external barriers and facilitators to implementing a behavior, based on an individual's or institution's capacity, opportunity, and motivation to make a behavior change[18]. The COM-B model seeks to understand users' capacity – not their intent - for behavior change by understanding their capability, opportunity, and motivation for achieving the behavior. Additionally, this model has been used to identify areas of strength and weakness within an organization and to develop interventions to improve organizational behavior.

### 2.3.2. Data Analysis

For this study the study team performed a thematic analysis which allowed us to identify, analyze, organize, and synthesize the qualitative data. All transcripts were downloaded into a text file and transferred to a cloud-based encrypted Excel spreadsheet for review purposes. The first phase of coding was done by the researcher who also conducted the interviews. Two interviews with the most unique codes identified during the initial transcript review phase were reviewed by two student researchers separately before conferring as a group. The remaining transcripts were

coded by the researcher who conducted the interviews in a third pass of the data. Finally, code descriptions were discussed and finalized with the research team.

Data organization and analysis were completed using a rigorous and accelerated data reduction ("RADaR") method[19]. The RADaR approach utilizes accessible, user-friendly data processing software, like Microsoft Word and Microsoft Excel, to streamline the processes of organizing, synthesizing, and coding data for quick turnaround to invested parties. This five-step illustrated in Figure 2 process allowed quick identification from interview transcripts to discern when a participant was describing potentially limiting factors.

The five steps of this method were adapted to fit the parameters of the authors' schedule and were executed as follows: (1) all interview transcripts were transferred once transcribed and formatted into a master Excel spreadsheet. Furthermore, themes within participant responses were isolated, summarized, and organized with the participant ID and transcript timestamp in an Excel spreadsheet; (2) the author classified each individual response theme into one of the six COM-B model components (Figure 1), as well as determined if the participant framed their response as a barrier or a facilitator. Additionally, thematic analysis, guided by domains included in the Theoretical Domains Framework (Figure 2)[20], assigned preliminary codes to each theme (see Figure 1 for examples of common couplings of TDF domains to COM-B components[21]); (3) a review team comprised of two student researchers, one of whom was privy to the focus group in which community feedback was gathered about the proposed sexual and gender health clinic in question, and another experienced in qualitative data analysis, conferred over two interviews' preliminary data codification. The team consolidated codes and proposed new codes to distinguish nuance within broader themes. (4-5) A semi-final review conducted by the original reviewer included updating the codebook and revising each theme's sub-domain classification using the

updated codebook. The reviewer team approved the final codebook before the original reviewer completed data analysis. Quotes that most strongly exemplified finalized codes were highlighted.

**Figure 1 COM-B Components and Associated TDF Domains**

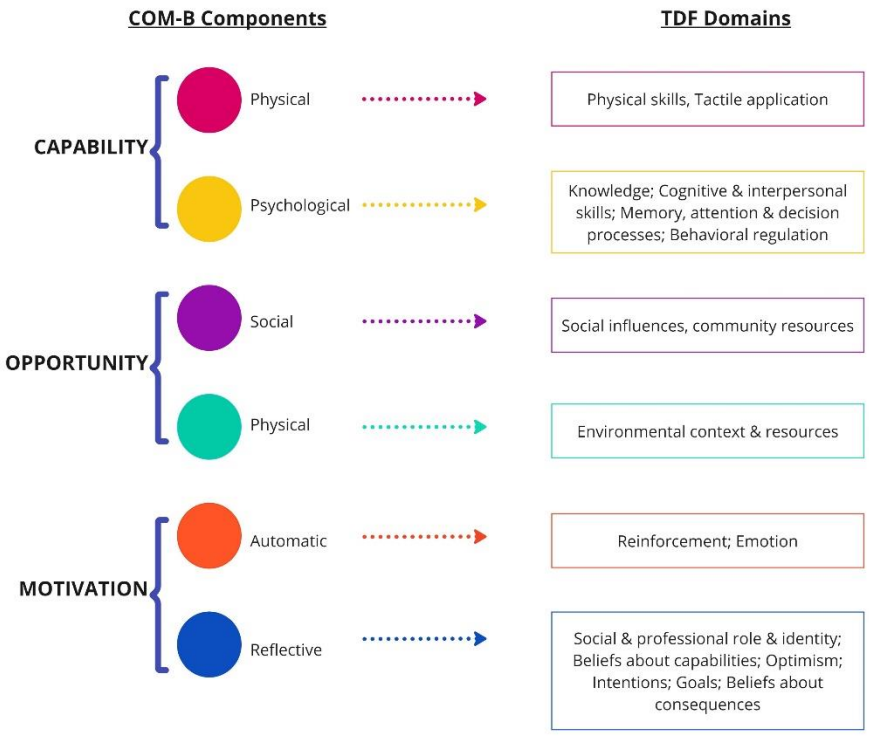
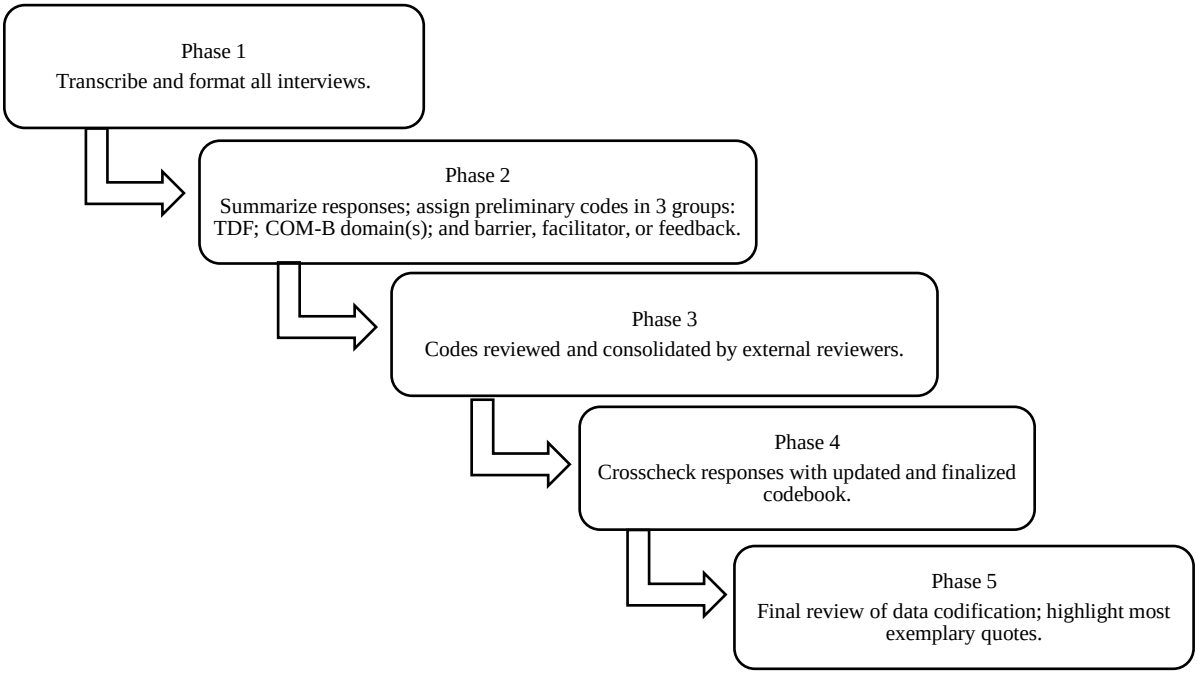


**Figure 2 "RADaR" Technique**



# 3. Results

## 3.1. Participant Characteristics

The characteristics of the participants are listed in Table 3.

**Table 2 Participant Characteristics**

| | **Overall** |
|---|---|
| -- | (n = 7) |
| **Demographic characteristic** | *n (%)* |
| Gender | |
| Cisgender woman | 3 (43) |
| Cisgender man | 3 (43) |
| Transgender and/or Nonbinary | 1 (14) |
| Age (years) | |
| 26-35 | 5 (71) |
| 36-49 | -- |
| 50-62 | 1 (14) |
| >63 | 1 (14) |
| Race/ethnicity | |
| Asian | 1 (14) |
| White | 6 (86) |
| Hispanic or Latinx/a/o | -- |
| **Career characteristics** | |
| Degree | |
| Master of Physician Assistant Studies | 1 (14) |
| Master of Public Health | 1 (14) |
| Master of Science in Nursing | 1 (14) |
| Masters (unspecified) | 2 (29) |

| | |
|---|---|
| Doctor of Medicine | 2 (29) |
| Years at local IHDS (years) | |
| < 3 | -- |
| 3-10 | 5 (71 |
| 11-20 | 1 (14) |
| Over 20 | 1 (14) |
| Department (specified by local IHDS) | |
| Center for Inclusion Health | 3 (43) |
| Center for Recovery Medicine | 2 (29) |
| Internal Medicine | 1 (14) |
| Family Care | 1 (14) |
| Positive Health Clinic | 1 (14) |
| Urban Health Outreach | 1 (14) |
| Experience level | |
| Associate | 2 (29) |
| Director | 2 (29) |
| Manager | 2 (29) |
| Senior Associate | 1 (14) |
| Employees managed (number) | |
| None | 3 (43) |
| 1-2 | 2 (29) |
| 3-5 | -- |
| 6-10 | 2 (29) |
| Over 10 | -- |
| Career area (specified by IHDS) | |
| Administrative Services | 2 (29) |
| Direct Patient Care Providers | 2 (29) |
| Provider Services | 1 (14) |
| Physician | 2 (29) |

Note: AHN (Allegheny Health Network) is an integrated health delivery system (IHDS) affiliated with Highmark and is located in the northeast region of the U.S.

Of the eleven planning committee members invited to participate, 64% (n=7) completed interviews. All participants had professional affiliations with the Center for Inclusion Health (CIH) at AHN for at least three years. Four participants obtained a master's degree, and two received their MDs. Four participants (all between 26-35 years old) have been AHN employees for 3-10 years. One participant (between 50-62 years old) has been an AHN employee for 11-20 years, and another participant (over 63 years old) has been an AHN employee for over 20 years. Among the job positions, one was employed in provider services, one worked in administrative services, two were physicians, and two worked as direct patient care providers. Experience levels for positions included Senior Associate, Manager, and Director. Three participants indicated having employees under their management. We elected to refrain from collecting salary information and sexual orientation data in the demographic survey due to the proximal relationship between participants and researcher.

Since the planning committee group within the CIH at AHN was the only group of people to read the CAB's recommendations, they could be the only eligible participants to interview out of all AHN's employee base. A follow-up investigation of multiple subgroups within the same hospital network could be an important next step in evaluating more generally the potential for this IHDS to implement marginalized community members' feedback.

### 3.2. Thematic Analysis

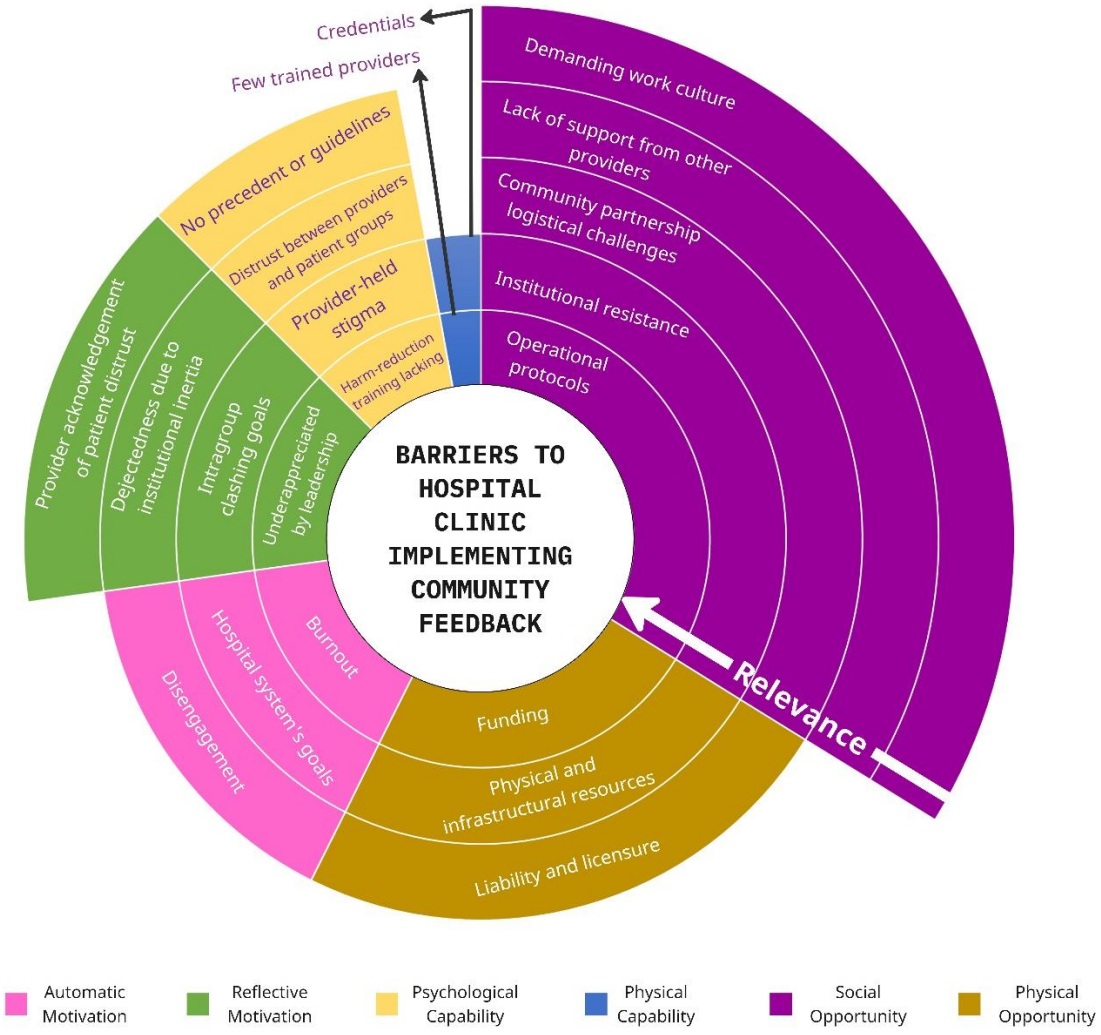
Out of the seven interviews, the study team identified 17 unique codes across all six of the COM-B components (physical and psychological capability; social and physical opportunity; and motivation). Interview responses were categorized as a barrier, facilitator, or feedback. Thematic analysis examined responses based on their classification as a perceived barrier or facilitator to implementing CAB recommendations by a hospital group. Participant feedback, coded as "D" (n=13), pertained to participant input regarding solutions and strategies for improving facilitation factors related to implementing community suggestions, and therefore could be neither classified as a barrier nor a facilitator. We include discussion surrounding these responses in a later section.

In the first of three phases, the research team used the Theoretical Domains Framework to use as a baseline for categorizing responses into behavior change sub-domains moderated by the COM-B framework's pillar domains characteristics (capabilities, opportunities, or motivation)[22]. The research team pared forty-five codes down to nineteen unique codes by the final phase, which are defined in Table 3. Among the six 325 code-eligible responses across seven interviews, social opportunity, physical opportunity, and reflective motivation were the most frequent categories of behavior change identified out of the six COM-B components. Sub-domains most often identified among interview responses were resources; knowledge, training, competency; hospital culture; and colleague network, respectively (see Figure 4). Resources and Hospital Culture were categorized most frequently as representing a barrier (twenty-three and twenty-two times, respectively).

**Table 3 Definitions of Codes, Based on TDF Domains**

| CODE | DEFINITION |
|---|---|
| Attitudes | Related to an individual's outlook on a situation; individually or institutionally held ideas of what is right and wrong; may be related to "values." Also regarding the intention and responsibility to implement feedback given by the CAB. |
| Colleague Network | Pertaining to interactions between personnel and departments within the AHN hospital network; peer/co-worker support. |
| Community Partnerships | Regarding relationship establishment, collaboration, intel gathering, or mutual support with non-AHN groups or individuals. |
| Direct Population Feedback | Suggestions, feedback, and recommendations given by people who have lived experience as engaging in sex work or identifying as SGM to healthcare field. |
| Existing Service Availability | Availability status of sexual and gender health services, substance use disorder treatments, and services mentioned by the CAB in the region, whether they are offered by either hospital network, a local organization, or a clinic. |
| Group Process | Related to logistical, interpersonal, or personal dynamics that contribute to the team's capacity to develop a novel sexual health clinic |
| Hospital Culture | Values, behavior, and culture of Allegheny Health Network and Highmark. Examples include hiring practices, caseload management, senior management/supervisor support, and corporate culture. Refers to interactions, perceptions, and opinions surrounding how hospital culture impacts aspects of and attitudes towards staff and faculty job duties. Also referring to how hospital culture impacts participants' perceived ability to implement innovative ideas and novel health delivery strategies. |
| Knowledge, Training, Competency | Related to hospital staff and planning committee members' knowledge, training, competency of working with people who have engaged in sex work and/or people who are SGM; lived experience of performing a task or a role related to direct healthcare delivery, identifying as a member of a marginalized population group, or working with populations who have ever engaged in sex work and/or SGM populations. |
| Legislative Policy | Policies that impact healthcare distribution and accessibility, set nationally or state-wide (PA specifically). |
| Impetus to Act | Influenced by one's attitudes; reason for behavior. |
| Operational | The hospital system's tangible systems, processes, and policies made to deliver aspects of "Hospital Culture" to parties who engage directly with the institution(s). Examples include billing, training, and procedures enforced by external policies (i.e., federal regulations). Also related to hospital processes required to implement novel clinic programming and coordination. |
| Relationship With Patients | Specifically referring to instances of provider-patient relationship from the provider's perspective. |
| Resources | Finite factors that directly facilitate operational domains, organizational capacities, and individual and/or group initiatives and behaviors (i.e. Funding, time, personnel, infrastructure). |
| Sociopolitical Context of Healthcare Delivery | Broader systems and structures that make up and influence healthcare delivery. The large culture of healthcare in the US that influences "Operational" and "Hospital culture" codes and may be influenced by "Legislative Policies." |
| Societally Held Attitudes, Inertia, Knowledge, & Precedent | Previously or currently held beliefs/values by mainstream society (including institutional level parties) that inform **how society behaves towards/treats those who have engaged in sex work and those who are SGM.** Also related to beliefs held about sex workers and sexual & gender minorities by society. |
| Systemic Injustice | Practiced, perceived, and perpetuated discrimination by an individual or organization toward some or all a person's identity; stigma. |
| Values | Underlying moral frameworks that determine an individual or institution's likelihood to act on a behavior. |

**Figure 3 Barriers to Implementing CAB Recommendations**



### 3.2.1. Barriers

Barriers mark any topic or statement described as a potential risk or detriment to the goal of the planning committee at AHN to implement the feedback given from a CAB of veterans to the sex industry in the committee's new sexual health clinic. In total, 136 remarks made by participants were framed as barriers. Total barriers per component were as follows: 45 (Social Opportunity), 32 (Physical Opportunity), 21 (Automatic Motivation), 19 (Reflective Motivation), 15 (Psychological Capability, and 4 (Physical Capability) (see Table 4).

Many sub-domain codes appeared in multiple COM-B components; code interpretations modified by its respective component are described herein.

**Figure 6 Barriers Identified**

| **Barriers seen across COM-B** | |
|---|---|
| **COM-B Component** | **Domain*** |
| **Psychological Capability** | Knowledge, training, competency<br>Systemic injustice<br>Hospital culture<br>Relationship with patients<br>Attitudes |
| **Physical Capability** | Resources [4]<br>Legislative policy |
| **Social Opportunity** | Operational<br>Hospital culture<br>Community partnerships<br>Colleague network<br>Group process<br>Knowledge, training, competency<br>Societal inertia, knowledge, precedent<br>Systemic injustice<br>Existing service availability<br>Legislative policy<br>Resources [1, 4] |
| **Physical Opportunity** | Resources [1, 2, 3, 4]<br>Existing service availability<br>Group process<br>Operational<br>Community partnerships<br>Hospital culture<br>Systemic injustice |
| **Reflective Motivation** | Group process<br>Attitudes<br>Systemic injustice<br>Hospital culture<br>Knowledge, training, competency<br>Existing service availability<br>Relationship with patient<br>Societal inertia, knowledge, precedent<br>Values |
| **Automatic Motivation** | Hospital culture<br>Impetus to act<br>Attitudes<br>Direct population feedback |

| | |
|---|---|
| | Operational<br>Societal context related to how healthcare is delivered<br>Societal inertia, knowledge, precedent<br>Systemic injustice<br>Values<br>Resources [4] |

*****Weighted from most observed to least observed
[1] Funding
[2] Physical location
[3] Public infrastructure
[4] Staff availability

#### 3.2.1.1. Capability: Psychological

Psychological capability refers to the ability of the individuals involved in the project to effectively plan, implement, and manage the new clinic. This comprises key components of knowledge (e.g. understanding the specific needs of transgender individuals and individuals who engage in sex work, the regulatory requirements for starting and operating a healthcare facility); skills (e.g. delivering necessary healthcare to meet the needs of the aforementioned patient groups); and self-efficacy (e.g. individuals' confidence in abilities to successfully plan, implement, and manage the new clinic to the specifications recommended by the CAB). 9.5% (n=13) of interview responses framed as barriers to implementing the CAB's suggestions were categorized under the COM-B category psychological capability.

*Knowledge, training, competency*

General practitioners' lack of understanding of and training in patient-directed healthcare delivery measures were referenced most frequently as a barrier at 46% (n=6) among interviewees. Further explanation by participants located areas in which methodology training was lacking, particularly in nursing school curriculum and teaching hospitals.

> *Participant 7:* I guess I should have known this. But, you know, really for the most part, um health care providers, people who do this work, they actually kind of want to do the right thing, right? They just don't know how to a lot of times because we don't train them very well. And so… just training people from front desk, receptionist to physicians and finance people and other people about people's needs as transgender or gender fluid, or you know, um kind of gender-based health care, uh people have been remarkably open to changing how they work.

*Systemic injustice*

Stigma held by physicians was the second-most identified risk factor in this component (31%; n=4) among participant responses. Lack of training and education surrounding harm-reduction healthcare delivery tactics often, as explained by interviewees, leads to incomplete assessments of marginalized patients whose needs extend beyond what the medical profession can provide. One participant cited the process of sharing patient data with providers in other departments or community health clinics as a risk of directing an individual seeking care to a more judgmental provider:

> *Participant 5:* If a provider is, is charting on someone who you know that, for example, is, is a commercial sex worker, you know, and if they need, like, interdepartmental care, and need to be referred to another clinic, will that provider at the other clinic be judgmental of that? So, we see this with- with substance use, and our providers document very specific ways around substance

use to hopefully prevent them from being judged at another clinic that isn't as affirming around that.

*Relationship with patients*

Two respondents (n=2) reported having limited knowledge of what types of healthcare and healthcare-adjacent services people who engage in sex work are looking for. A physician assistant who specializes in direct community outreach reported having seen a low number of self-disclosed sex workers in her work:

> *Participant 1:* I feel like we don't see as many [sex workers] as I would expect. um in our population at [the community clinic], and I do see a fair amount of patients with recovery medicine, but I haven't had anybody there disclose that they have done that.

*Hospital Culture*

One participant (n=1) pointed to a lack of a given framework by the hospital on how to construct a new sexual and gender health clinic. Additionally, a lack of administrative transparency left some participants feeling uncertain of the administration's ultimate goals with funding the proposed clinic.

> *Participant 2:* I never actually like, moved forward in standing up a clinic before. So I don't have that experience. I was expecting a little bit more mentorship for myself. It's-- it's been pretty difficult to get…I don't always feel like I'm the best equipped to [lead something like this], because I don't have the operational

know-how. …there's so many, again, moving pieces that I don't know what to focus on.

### 3.2.1.2. Capability: Physical

Responses coded under the physical capability component referred to instances when an individual or group of individuals' physical skills and experiences were mentioned. Physical skill can be defined as the application of one's training or knowledge around providing healthcare to people who engage in sex work and/or sexual and gender minorities. Four (3%) barriers could be categorized under physical capability.

*Resources (Staff availability)*

This code, when categorized for physical capability, refers to the availability of trained personnel, and the necessary applied professional and personal experience needed to establish and operate a sexual health clinic for sex workers and gender nonconforming people. Participants referenced this code when discussing needing more provider support to conduct patient appointments in a way that fulfills their department's mission to deliver patient-driven care. Availability of providers trained in service delivery methods specific to the needs of people engaged in sex work came up often among half (n=3) of the participants as a potential barrier to implementing the suggestions of the CAB.

*Participant 6:* The providers who are planning to staff the clinic are not women's health providers necessarily. …If I were the one being putting in IUDs, I would not be providing as good of a care of putting in an IUD; I want to specialize on (sic) this, right? just because I don't have much experience with it.

So that was just sort of a question that came to mind when we were talking about this early on.

### 3.2.1.3. Opportunity: Social

The range of contexts under this component relate to social influences, environmental context, and resources likely to impact the CIH planning committee's behavior (e.g., implement community feedback as an entity of an IHDS). Eleven domains were coded as likely inhibitors to achieving this outcome; in total, 44 barriers were identified under this code. Nearly half (44%) of the identified barriers could be described as an Operational factor (n=8), a Hospital Culture factor (n=7), or a Community Partnership factor (n=5).

*Operational*

Allegheny General Hospital's operational & procedural best-practices (i.e. billing structure, testing standardization) were cited 8 times (18%) among participants as the predominant inhibiting factor under this component to implementing strategies provided by a community advisory board (CAB). Hospital documentation policies particularly were described as working in direct opposition to the CAB's recommendations that patient forms be open-ended, electronic medical records (EMR) be kept private between the patient and their trusted provider, and that no unwanted medication or test is prescribed to the patient (see 6.2 Table 1). One participant compared a local nonprofit's mobile health clinic ability to administer harm reduction services to that of a hospital department:

*Participant 3:* I think that how harm reduction is practiced is like-- it's tough, because I feel like on the mobile unit, [they] can really just practice for

the people, and I think that that's so important…[They] have a totally different EMR, and [they're] not billing…But that's because it's like, run through a nonprofit, and so you can do kind of a lot more things… Even if we try our hardest as health care professionals to be really non-stigmatizing in our documentation, and using words like very carefully, sometimes like something might still read a certain way, right? It's hard to say it won't or it will, but it's so annoying that we can't just make things anonymous. You know what I mean, like we can't just like figure out a way to do that, and I feel like that's really important... It just sucks because a lot of the things that [the CAB] had mentioned were, like they're amazing and those [recommendations] are totally valid and like, that's like the dream. But I don't know how you do that."

Two participants emphasized the hospital's billing procedurals as a major deterrent to operationalizing the CAB's recommendations, citing bureaucratic hoops to jump through to treat uninsured persons:

*Participant 2:* That aspect of expansion into the, trying to reach…people who are uninsured, providing services at lower discounted rates for people who can't afford it, [or who] can't afford insurance…; apparently, it's really, really difficult for providers to get credentialed to provide care for people who are uninsured. … It kind of seems like that's on the, 'you're gonna have to come up with a good justification for this, and we're probably still not gonna do it,' kind of thing, but I don't know. Like, it's not in a provider level of like, "I don't want to see people who are uninsured" it seems more like a bureaucratic, like, 'Here's

all the hoops you need to jump through to see people who are uninsured,' and it's going to make it impossible.

*Participant 7*: We're venture capitalists, in a very weird way. We find money and create the programs. We try to demonstrate that they're useful, and then we try to have the health care system adopt those programs and support them through, you know, through giving a space and providers, …but also want the health insurance companies to pay us better for this work so that we can hire community health workers and peers. And things that don't bill and don't generate revenue, we have to pay for them somehow. That's where the system transition, you know, and change comes in, because we have to begin, then, to think differently about how we pay for how we give healthcare services to people… It goes from 'Oh, this is a good idea,' to like, 'Okay. So now how do we change the entire way that Highmark reimburses?' You know, how will Highmark reimburse us for services, so that we're not dependent on foundations and philanthropists…?

*Hospital Culture*

Participants spoke often of institutional resistance and hospital culture as having a limiting influence on creating a novel sexual and gender health clinic for marginalized patient groups (n=6). Two participants noted AGH's staffing policies as a barrier to the planning committee's goal of staffing their proposed clinic with their choice of providers:

*Participant 3:* But everyone also has their own agenda, you know. like, why is Highmark supporting this? It's like, yeah, we want to say that everyone's like, really nice, and they just really believe in the value of it. But also, like, it does look good. So they might be like, 'Oh, you should do this. You should do that', and like, 'you should hire this way', or 'you should look at this candidate more favorably'. And I think that that's always tough, that you are also depending on the health care network to support you.

*Participant 1:* So I personally feel like we could use more provider support just because we do handle so much with our patients. They're a lot more complex than like, your typical fifteen-minute PEP (post-exposure prophylaxis) visit, because we're handling all of that holistic care. So our slots are typically thirty minutes for our established patients and an hour for new patients, which is great!-- it's just, when you look at the utilization, it's one of those annoying health care system things where they're like, 'Your appointment to provider ratios are so low, like everything's fine', but they don't realize what we're really doing. So it's, you know, it can be kind of difficult.

Another participant remarked on what they described as 'institutional inertia':

*Participant 5:* It can be hard to start something completely new, and I think, I think that this, you know, the advantage of a larger institution is that everyone's under the umbrella. I think a disadvantage would be that the inertia or conservative -- not in the sense of like politically conservative, but like,

people tend to kind of want to keep doing the things that have always been done, and it - it can be hard to break in and start something completely new.

Finally, a participant reflected on witnessing discrepancies within the hospital network's applied values:

> *Participant 7:* It's great, [AGH has] these healthy food centers, we can give food to people. So we deal with the social determinants of health a lot at CIH, and people are [at least] kind of okay with that, or really, really supportive of that. But when you start talking about the political determinants of health, things start to go sideways. Because if you're talking about the political determinants of health, you're talking about actually structurally changing the way health care systems work, how they connect to communities and community health, how they invest in communities. How does Highmark make sixteen billion dollars last year in the middle of a pandemic and then cry when they can't fund our programs? So there's - yeah, it's frustrating.

#### 3.2.1.4. Opportunity: Physical

Physical opportunity factors came up as a barrier to implementing CAB recommendations for a novel sexual health clinic 32 times. These factors referred to the availability and accessibility of pivotal tangible and monetary resources relative to the planning committee.

*Resources (all)*

Participant responses related to resources that inhibited the planning committee's physical opportunity to implement community feedback (n=14) were organized into one of the four categories: funding (n=8), physical location (n=4), staff availability (n=2), and public infrastructure (n=1). Overwhelmingly, funding the clinic was the most frequently cited obstacle to creating a community-member-approved clinic that could offer services beyond strictly sexual health services:

> *Participant 5:* I think the question of funding is really is really difficult, and I don't think there's a clear funding source yet. Although, if we get this PrEP contract, once we get it up and going, that could be a funding source for some of the services for [the clinic]….[*participant discusses reception of CAB ranked list of recommendations*] It's been really interesting and exciting, and I mean, I learned from the results of that of that group. But I think finding a funding source and kind of all the like—you know, how do you scale it up? How do you make it sustainable? How do you fund people's time? I think that's an ongoing question.

Additionally, acquiring physical space to adhere to the CAB's recommendations for patient privacy assurance was the second-most cited resource barrier among participants.

> *Participant 5:* I think some of this stuff around like physical location and hours [are the biggest challenges] because it can be hard to find space… like a good space that is welcoming and affirming and convenient., um because we could, you know, like, rent a suite in a in a hospital, But is that going to be the space that the community needs? And you know will people show up? Will they

go into a hospital? They may have experienced discrimination going to, you know, a standard hospital, they may not want to go back. And, you know, there's also, like, security police all over hospitals now, you know? They're sort of like, almost quasi-militarized, you know? And it's just not so easy, you know? There's probably open office suites at AGH or West Penn or nearby, but is that the space the community needs?

*Participant 7:* There's these complex niches in medicine where specialists have a place to be, and people go to them for a specialty care. And I think that that's going to be true for transgender health. For people who do sex exchange work, is there a need for that level of medical specialization that they need a separate space? Or do they need a separate space simply because they're going to be uh persecuted if they go anywhere else?

Staff available to work odd hours who are also trained in administering the anticipated services needed by patient groups:

*Participant 5:* And then, um, you know, getting hours. Yeah. Getting staff to, you know, if there's ever a request for um, you know, non-standard hours, that that's always more difficult just to find that and staff for that.

*Participant 1*: I think there's other providers… who are also going to be doing that [working in the new clinic]. I don't know what their plan is for, like, nursing staffing at this time. I don't know if they're going to borrow from our

current programs until they satisfy that big a need...but I think that is a big logistic we have to work out.

*Participant 4:* Everybody [the staff] comes and goes, comes and goes. And that's, that's, you know, for every time you have someone transition and transition out, now you have to teach new people new things, and then the patients sometimes are just like, well, you know, I finally get used to somebody, and then they leave.

Finally, public infrastructure was cited once as a limited resource that inhibits the planning committee's ability to ensure number 6 on the CAB's ranked list of recommendations – that the clinic is on a bus line – is implemented.

*Existing services availability*

Availability or lack of availability of health services recommended by the CAB, which were identified by participants as being unavailable to or already accessible, made up 15% of total barriers in the physical opportunity category. One physician conveyed frustration at having to constantly refer patients out of network to obtain PrEP (pre-exposure prophylaxis):

*Participant 1:* In the past we had a PrEP clinic that ran out of the internal medicine clinic next to us, and then that kind of got folded due to staffing issues. So then, you know, AHN didn't have any offering for a PrEP clinic, which seemed quite absurd to me, given how effective it could be. We started getting tons of referrals for PrEP, and it was frustrating to not be able to have somewhere in our system to refer people to.

A participant also cited redundancies of services as a potential barrier to entice new patients to seek the new clinic's services:

> *Participant 6:* People know how to get STI testing and know how to get free condoms. And most people know have some idea of the, you know, most people with a cervix have some idea of the importance of a pap (*sic*), but that's not likely to be what's going to bring someone to a space.

*Operational*

Licensing for specialty services, establishing EMR practices that do not infringe on a patient's privacy, and circumnavigating around HIPAA issues were examples of how the "operational" domain hindered the planning committee' physical opportunity to implementing CAB feedback. One participant described their current challenges in keeping patient data secure when faced with the scenario of a patient cycling between multiple outpatient clinics:

> *Participant 3:* We have a lot of patients who pop between [two of CIH's specialized clinics], and that's totally fine. But learning how to, like-- without breaking HIPAA, without upsetting the patient, or making them feel like we're talking about them behind their back; like, being able to collaborate about that stuff. … and it's not just like HIPAA. I think it's also, like, you don't want this patient to get phone calls from, like, fifty different people, even if it's the same health network. And even if it's technically HIPAA compliant, there's also a matter of trust between the person and their healthcare team.

*Group process*

Staff availability and schedule discrepancies within the planning committee, as well as with collaborating community organizations, were most often cited as a physical opportunity barrier to the planning committee's ability to execute group process (n=4).

> *Participant 2:* Yeah, now trying to figure out how to incorporate services without stepping on anybody's toes, I think, was the biggest thing at the beginning of this. I don't want to recreate an HIV care center, I don't want to recreate, you know, a homeless outreach program, like all of that. But for us to not do that, we need to include the partners who are doing that, and to include partners that are doing that, we have to work around their schedule. And it's just kind of a cyclical thing of more logistical struggles than anything.

#### 3.2.1.5. Motivation: Reflective

Responses labeled as "Reflective Motivation" COM-B component were counted as a barrier 20 times across all seven interviews. Participant answers were coded as reflective motivation if they conveyed thoughts about their positionality within various socioecological levels (i.e., the planning committee, the IHDS, as a healthcare provider in society, etc.); how they thought about the planning committee's role in the context of creating a novel sexual and gender health clinic; and how environmental and/or interpersonal interactions have spurred them to action. The most common domains framed as an inhibitor to operationalizing CAB feedback within this component were group process (n=5), attitudes (n=3), and systemic injustice (n=3).

*Group process*

Differing viewpoints among planning committee members regarding the clinic's primary objectives was referenced as a barrier frequently across multiple interviews. Participants cited disagreements over which population(s) the clinic should exclusively target, types of services the clinic should begin offering, and the order in which actionable plans are taken as friction points that often put the planning committee at odds with the CAB it tasked to provide recommendations.

A participant shared frustrations regarding the planning committee's leadership changing the original direction in which they wanted to take the clinic – from strictly a transgender health center to one for both transgender people and people who do sex work – for feasibility purposes, despite action being taken to move forward with a transgender-specific clinic:

> *Participant 2:* I was trying to plan a [transgender-specific health clinic], and that got shot down for funding reasons. And so this is supposed to be a combination of [transgender-specific health and healthcare services specific to people who engage in sex work]. But it's more like rolling the trans health stuff up into a broader goal of gender and sexual health. So it's still the idea of the clinic, but it's not exclusive to gender diverse people anymore… On a personal note, I was just nervous about starting another project, and having it be shot down and have it wasted months of my life on it. But that doesn't seem to be happening this time-- yet.

In two interviews, concerns were shared regarding a perceived paradigm shift away from holistic care model (e.g., primary care, mental health services, financial wellness services, housing resources, etc.) to a strictly sexual healthcare model:

> *Participant 3:* I think one thing that's a little bit tough is that, like, I kind of went in with the mentality of like this [clinic] should be, like, healthcare as like a clinic, not just like focusing on STD/STIs, but I think it's veering into STD/STI [delivery], and I'm not sure how I feel about that.

A participant noted a unique process challenge that confronts a planning committee comprised of healthcare professionals with various years' worth of experience in their respective fields:

> *Participant 7:* This is one of the, I wouldn't say downsides, but one of the process sides of bringing a bunch of young, um, not, and I don't mean that in a condescending way, I-I mean when I say young, I mean people with energy and intellect. But yodu know, people who want to change, who want to, you know, innovate. It's hard to fit those really broad visions into the small space that we're going to be allowed to inhabit within the system. And so we have to figure that out for this to be successful.

*Attitudes*

Sentiments of frustration around their feedback being disregarded by planning committee leadership were observed to have a diminishing effect on participants' overall involvement in the planning process. Nearly half of the participants conveyed dismay over planning committee leadership not applying the participant's lived experience of providing healthcare to people who do sex work in clinic plans, which resulted in the participant lessening their efforts in the planning process:

*Participant 6:* I was kind of brought on board because of my experience working with women on the street, and you know, with folks who do sex work outside, and it kind of felt like, why am I here if you're not going to listen to what I have to say? Not that I expected or wanted to be the lead of this at all. But it just kind of felt like my voice wasn't really being heard.

*Systemic injustice*

Three interviewees reflected on the significant role hospitals have historically played, and still play, in perpetuating discrimination and injustice against transgender people and sex workers, and openly questioned if a hospital setting is indeed the proper site to establish a novel sexual and gender health clinic for these populations.

*Participant 7:* The work that we do has been embraced [by Highmark] and that has been heartening, but you know, we've still got a lot of-- there's so much entrenched wealth and privilege, and the way the system works right now, that's, um, it's a really tough thing.

*Participant 3:* Especially for patients that are, like, not just patients, like people who are just so vulnerable, and who have been treated so badly by the health care system, it almost feels better [if our proposed clinic were] to be like, we're not technically health care.

*Participant 6:* I think it's just that there has been so much trauma and violence caused by the health system to this population, that I do think that there is value in connecting health care providers with folks who do sex work, you

know, like intentionally and directly, because we want to try to repair those relationships with the health care system, but I think trying to approach this from a health system lens is not-- starting this project within a health system model is maybe not the best way to go about it.

### 3.2.1.6. Motivation: Automatic

Twenty-one data points were categorized as relating to an individual's or institution's "automatic motivation." These points relate to one's subconscious reaction caused by environmental stressors.

*Burnout*

Rampant turnover among staff who are competent in delivering harm-reduction methods of healthcare was referenced as a significant barrier within the automatic motivation component (n=5). Participants noted existential doubt in the job and higher rates of stress due to job demands were the leading causes of staff turnover.

> *Participant 7:* You know, some days I'm like what the fuck am I doing here? like, what are we doing here? Like, what is the possibility of succeeding? And this undertaking? When in reality…the fact is that we are dealing with a very broken, very sick, and very pernicious health system. We're trying to really, in the most reformist way possible, change it. But, you know, the flip side of that is that people are walking up to our doors every day, and they're in pain, and they're suffering, and they're dying, and we have to respond to that in some way. So it's this kind of tension between, you know, kind of aspirational political work

> and change work, and the fact that people are just out there...and we have to be there, and we have to provide for them in any way that we can. And that's a that's a huge tension. Absolutely. Every single day. I would say that probably most people in CIH recognize it at some level or another because we talk about it a lot. You know? This is a lot of the focus of conversation behind our doors is like, what the hell are we doing here? I mean, we're doing a lot of good. There's no question.

*Hospital culture*

Participants needing more understanding from hospital system's upper management pertaining to healthcare professional's workload was a major theme under this component's domain:

> *Participant 1:* I think there needs to be more understanding from upper-level management about, like, what we truly do as providers on the day to day, and how exhausting it really is! And even, like, more understanding from AHN, you know? These productivity numbers they come up with, and the patient-to-provider ratio, and kind of what that means for the health care system in general. I mean, that's a loaded-- it's a whole bigger issue.

Another participant speculated that as long as there was no physical central location, providers' ability to connect patients to resources, and the patient's ability to access those resources would deter patients from seeking those resources at all:

> *Participant 4:* It's something that takes a lot of work when you don't have a specific center to [connect patients to trans-friendly providers]. It's also helpful, I think, from a patient perspective to have something where they could say, 'Oh, I know a number to call and get connected to all this care', or 'I'd go to the center'. Be it more of a metaphorical center because, you know, I see patients out in Monroeville, and some at Federal Street at Allegheny General. But it would be helpful, I think, to patients, so they can get easier access and better connections to care when it comes to the different services [a centralized clinic] would offer.

### 3.3. Summary of Main Findings

Overall, "hospital culture" was the most frequently cited limiting domain to implementing CAB feedback. This can be attributed in part to: 1.) a hospital's hierarchical and bureaucratic system that is too cumbersome and layered to change how it operates; 2.) the upheld values and opinions of funders and leadership over those of overlooked patient groups and physicians trained in delivering novel healthcare; and 3.) the inconsistent training requirements for general providers to learn trauma-informed healthcare delivery modalities. Participants vocalized how hospital culture prioritizes status quo over innovation, making it difficult to follow through with the CAB's ranked list of recommendations for a sex-worker- and transgender-specific sexual and gender health clinic. Future research should consider investigating whether this cause is due to a hospital's

reluctance to deviate from established practices, or due to a lack of understanding of the importance of community feedback in improving healthcare outcomes.

Furthermore, “social opportunity” was the most populated COM-B component, with one-third (33%) of the identified barriers categorized as such; 18% of the social opportunity-coded barriers were codified as “operational”. While more data should be collected to corroborate these findings, this study’s results emphasize that it is a responsibility of hospital administrations to ensure that departmental planning committees feel supported and empowered by their institutional network to initialize evidence-based novel healthcare programs.

### 3.3.1. Participant Feedback

Participants gave responses to questions that could be qualified as neither a barrier nor a facilitator, but as a directive informed by their knowledge and experience that could be tied to a factor of behavior change. Sharing participants’ unsolicited feedback may present an opportunity for other similar planning groups to start a dialogue around their approach to similar goals based on the results of this work. Strategies participants would like to see their parent institution implement to improve patient-driven care across the entire hospital network:

*Training:* More general provider training on harm reduction methods, anti-stigma training, and patient-driven model of explaining substance use. Share-outs by CABs to other AHN departments.

*Staff:* Salary incentives to draw in new physicians and retain current physicians working with marginalized populations / uninsured patient groups to prevent burn-out.

*Funding:* Prioritize CIH as benefactor of funds; do more to promote the work CIH is doing for the city's most vulnerable.

*Organizational Communication:* Hold interdepartmental discussions to promote collaboration and understanding between physicians on what patients' needs are not being met, and to strategize ways to meet those needs.

# 4. Discussion

## 4.1. Implications of Findings

Findings suggest that hospital culture obstructs successful implementation of novel healthcare delivery tactics given its broad influence over the hospital's social, professional, and operational environment. These findings highlight the importance of understanding the cultural norms, values, and beliefs that shape the hospital environment in which healthcare professionals operate. A hospital culture that is resistant to change or is slow to adopt new practices can impede progress in healthcare delivery, despite the best intentions of planning committees or healthcare providers.

These findings also corroborate previously collected data from peer participatory research, such as St. James Infirmary, a community-based organization offering wrap-around services for sex workers and transgender individuals in San Francisco, CA. According to their 2012 report, 70% of their clients reported never having disclosed their sex work status to general healthcare providers out of fear of criminalization, concerns about confidentiality, and stigmatization[22]. Prior research lists several reasons why people who do sex work may be hesitant to open to a physician, including past negative experiences with healthcare providers in the past and fear of legal repercussions[3,6].

This quality improvement study evaluated predictive factors for an existing health clinic's potential to succeed in implementing previous community feedback. The goal of this study is to allow for group reflection on the part of the planning committee to assess how their collaborative

energies could be best spent to further their goal of creating a sexual health clinic in the vision of transgender and sex worker individuals. While the codes identify exact areas for improvement to enable community feedback implementation as a behavior, all codes under COM-B components interact with one another creating positive and negative associations between codes.

This study adds to the limited body of work that pinpoints influential elements driving both hospital culture and individual hospital staff behavior using the same framework. Tarrant et. al conducted interviews and focus groups with staff at three hospitals in the United Kingdom and analyzed their responses using the COM-B framework. They found that several elements, including staff beliefs and values, social influences, and physical and social opportunities, were important drivers of hospital culture and staff behavior and concluded that addressing these behavioral drivers can help promote a culture of safer care in hospitals[23].

Governing bodies of large hospital networks enact policies that are reflective of their individual members' cumulative beliefs, opportunities, and capabilities. Understanding what drives the socio-ecologic landscape of an institution is a necessary step towards successfully implementing marginalized community feedback. In this case, however, community feedback was gathered after institutional permission was granted to move forward with clinic development.

Additionally, this assessment identifies specific constructs within various socioecological levels that can be leveraged to maximize conditions conducive for implementing novel ideas. For instance, when hiring new providers or support personnel, hiring managers may use these findings to isolate characteristics in new hire applicants related to a capacity and/or motivation domain that may facilitate departmental goals. Finally, examining the intersection of intervention theory and healthcare delivery optimization may better target specific barriers and facilitators within separate SEM levels with these findings.

## 4.2. Limitations

At the time of interviews, the planning committee from which participants were selected was still in its strategizing phase. Therefore, planning committee members could not disclose what factor(s) they found to be the most helpful in achieving their desired outcome of a stand-alone sexual and gender health clinic that meets the expectations of identified marginalized populations.

Additionally , the data analysis phase highlighted how components associated with the socioecological model (SEM) (i.e., Individual, Institutional, Policy, etc.) were intrinsic to participants' responses. However, since the interview guide was not created with the SEM framework in mind, responses, while stationed within the broader context of a multi-level landscape, could not reliably be coded for their SEM level.

## 4.3. Future Research Considerations

While this analysis highlighted only the limiting factors impacting a planning committee's attempt to establish a community-member-approved clinic, facilitating factors, which the research team included in their data analysis, surpassed the number of barrier-coded data points by 16%. A thematic analysis of facilitating factors is necessary to encourage similar agencies to assess if the factors enabling the AGH planning committee's circumstances could increase achievability. Furthermore, using the framework of concept mapping to rank barriers and facilitators among hospital staff may expedite program planning and feasibility.

Higher prevalence of staff shortages within the healthcare field has been linked to the COVID-19 pandemic wherein providers are experiencing burnout at significant rates[24]. Burnout, as evidenced by participant responses and previous studies, is positively associated with staff turnover[25]. Future investigations zeroing in on what causes burnout among harm-reduction healthcare providers could potentially isolate socioecological levels from which to initialize interventions aimed at retaining competent and trauma-informed providers in hospital settings.

It may also be necessary to study strategic approaches informed by intervention theory that involves engaging hospital leadership identifying institutional beliefs that are hindering progress and collaborating on how to implement interventions to reframe administrative priorities. Longitudinal analyses of health equity interventions in primary care settings showed significant improvements in physicians' self-efficacy and patient experiences[26]. When organizational leaders support equitable healthcare delivery solutions, patient outcomes and direct patient support staff confidence improve and ultimately drive progress in the healthcare industry.

Finally, codes co-created by the research team demonstrated how the TDF and SEM frameworks cane be complementary, with the TDF providing a detailed understanding of the psychological and cognitive factors that influence behavior change, and the SEM providing a broader perspective on the social, cultural, and policy factors that shape behavior change[27,28]. Future research might examine the intersections of a behavioral change framework and the socioecological framework to explore potential areas for improvement and intervention as part of a site-specific implementation study.

## 5. Conclusion

Following a harm-reduction model, efforts among hospital departments to promote novel healthcare delivery tactics must gather and subsidize preliminary community input prior to establishing best practices[29]. Additionally, departmental programmers and managers should emphasize consensus-based decision-making to foster equal ownership among team members, thereby decreasing the risk of burn-out and compassion fatigue. Hospital policies that were created with a different workforce and patient population in mind should be reassessed systematically to ensure patient potential for accessing equitable healthcare across a wide variety of patient groups, including individuals who engage in sex work and transgender individuals.

# 6. Figures and Tables

## 6.1. Models and Framework

**Figure 4 COM-B Model Relationships (McDonagh LK, Saunders JM, et al. 2018)**

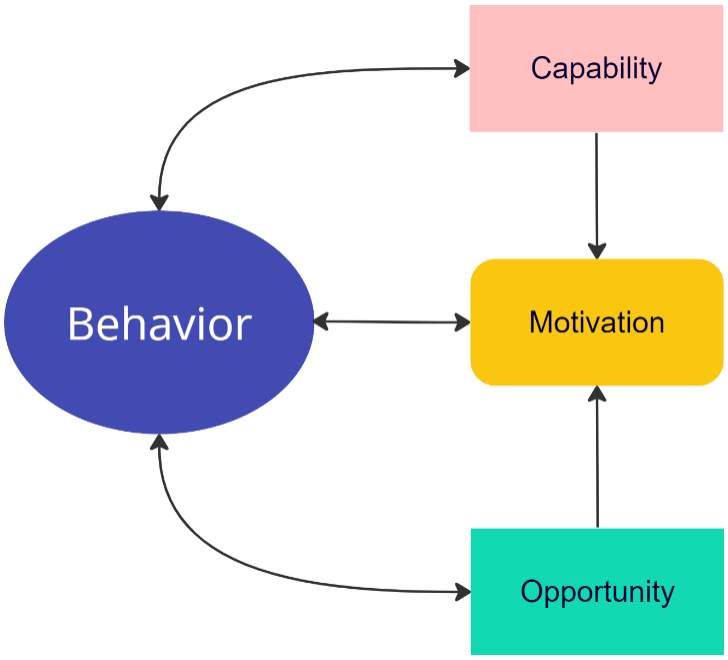
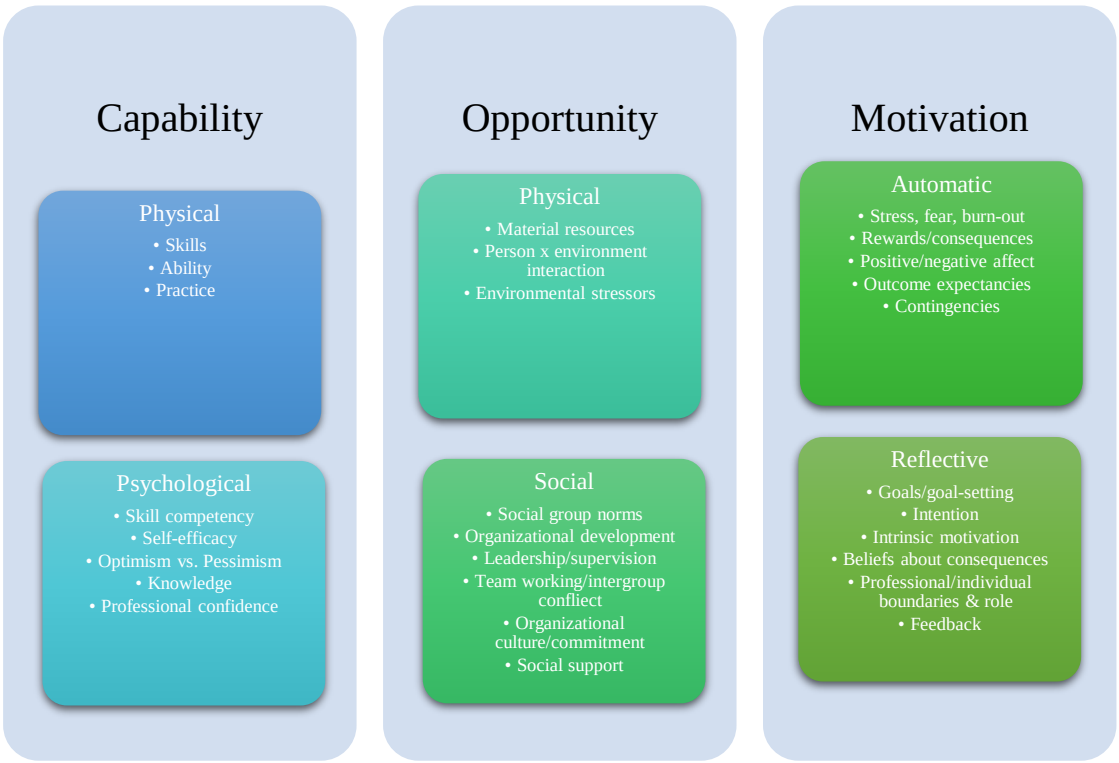


**Figure 5 TDF Domains Categorized by COM-B Components**



## Appendix 1 Semi-Structured Interview Guide

PART 1: Opening question

- *Why is opening a sexual and gender health clinic for these populations (gender minorities and people in the sex trade) important to you?*

PART 2: Capability Domain

- *What skills or physical tools would you need to implement the suggestions of the CAB?*
- *What were your assumptions at the beginning of this planning process about the needs of the target population, including those who are sexual and gender minorities, and those with a history of engaging in exchange sex? And how have those assumptions changed, if at all, over time?*
- *What are challenge areas you would foresee with implementing the CAB's feedback?*
- *What are some services you could anticipate being easy/difficult to implement?*

PART 3: Opportunity Domain

- *In your opinion, what's the capacity of this planning committee to implement these suggested services?*
- *Have you been a part of other committees that sought outside feedback on future planning? If so, what was it like for the group to receive feedback? For you personally, what did that feel like?*

PART 4: Motivation Domain

- *What were some ideas you heard in the list that you are excited to try and implement?*
- *How do you think the clinic, after integrating the suggestions of the CAB, would benefit the sex worker community in Pittsburgh?*
- *How did hearing the CAB's suggestions change your understanding of this population's needs, if at all?*
- *How does your healthcare institution or leadership support changes suggested by the CABs? What facilitators or barriers at your institution allow opportunity for suggestions to be enacted?*

PART 5: Closing statements

- *Any additional thoughts you'd like to share about hearing the CAB's final list of suggestions, or about this process in general?*

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