The Louisiana Inter-Pregnancy Care Project - Final Evaluation Report

The Louisiana Department of Health and Hospitals' Birth Outcomes Initiative approached the Louisiana Public Health Institute to assist in developing an evaluation plan, and to conduct process and outcome evaluation for the Louisiana Inter-Pregnancy Care (LA-IPC) Project. The overall goal of the LA-IPC Project was to improve the health of women and their reproductive health outcomes in terms of achieving optimally spaced, planned pregnancies and averting adverse birth outcomes through the provision of social support in conjunction with primary health care.

Introduction

Preterm delivery is one of the predominant causes of low birth weight and is the third leading cause of infant mortality in the United States[1]. Prior research has demonstrated that very low birth weight births (<1500g) account for greater than 50% of infant mortality[2]. In 2013, Louisiana had the 48th highest infant mortality rate, 49th highest low birth weight rate, and 49th highest preterm birth rate in the country[3]. Women whose first pregnancies resulted in preterm deliveries are more likely to have greater risk of recurrent preterm delivery[4]. The reason for recurrence is likely that a woman's pre-existing health status is poor and may include untreated or poorly managed medical problems as well as unaddressed nutritional and behavioral risk factors after the first pregnancy[4]. Chronic conditions such as obesity, cardiac disease, hypertension, and diabetes can lead to adverse birth outcomes, and those health conditions are likely to persist through the second pregnancy[5]. Other factors that influence adverse birth outcomes are young age, chronic mental health issues, and short birth spacing intervals[4]. Women who have a short inter-pregnancy interval of less than 18 months may have a higher risk for adverse pregnancy outcomes in subsequent pregnancies when unaddressed risk factors are present during the prior pregnancy[6].

IPC can be defined as care of women of reproductive age who are between pregnancies to ensure that conditions and behaviors, which may pose a risk to mothers and infants, are identified and managed. A specific element of IPC is the identification and reduction of risks indicated by a prior adverse pregnancy outcome[7]. The current status of IPC in the United States is far from ideal. Approximately one of six obstetrician/gynecologists or family physicians had provided IPC to the majority of the women for whom they provided prenatal care[8]. However, the Select Panel on Preconception Care stresses the importance of interventions during the inter-pregnancy period for women with previous adverse health outcomes[5]. This period is a critical time to modify risk factors that are associated with adverse pregnancy outcomes[9].

Examples of IPC programs include the Grady Memorial Hospital IPC program and the Magnolia project, which showed promising models for IPC. Each of these programs offered unique strategies as part of their inter-pregnancy interventions. These programs delivered IPC to women at risk for poor health and pregnancy outcomes, but targeted different categories of high-risk African-American women and utilized different sites for contacting and interfacing with them.

The Grady Memorial Hospital IPC program identified women at risk based on race/ethnicity, qualification for charity care (based on financial status and geographic residence in two counties of metropolitan Atlanta) through Grady Memorial Hospital, and a prior poor birth outcome (very low birth weight [VLBW] delivery). Women were enrolled soon after their VLBW delivery and provided IPC in the clinical setting of the hospital combined with community outreach activities via Resource mother[6].

The Magnolia project served women at risk based on race/ethnicity and residence in Jacksonville-Duval County, Florida and aimed to reduce key risks in women of childbearing age, such as lack of family planning and repeat sexually transmitted diseases (STDs), through its case management activities. The Project provided inter-conceptional care in a community-based storefront setting with enhanced inter-pregnancy care for women with a previous LBW delivery or a previous fetal or infant death. Access to the Magnolia project was enhanced by offering evening clinics and walk-in Wednesdays[7].

Both programs had some measure of success. The Grady Memorial IPC project resulted in 2.5 times fewer repeat pregnancies by 18 months postpartum compared to the control group and 3.6 times fewer adverse pregnancy outcomes among those women who had a repeat pregnancy within 18 months postpartum compared to the control group[6]. The Magnolia Project had a success rate of greater than 70% in resolving the key risks: lack of family planning and repeat STDs[7]. Overall, both programs were targeted to African-American women at risk for poor outcomes, and appeared to be effective in optimizing the woman's health and subsequent reproductive health outcomes when specific risk factors were identified and addressed.

Pre-Hurricane Katrina, Charity Hospital was the second oldest operating hospital in the US, serving as the primary source of health care for New Orleans' uninsured patients and caring for ninety percent of the city's indigent population. As the hub of the region's state-run, safety net health care system, the closing of Charity Hospital and its clinics post-Katrina was devastating. The aftermath of Hurricane Katrina severely damaged Greater New Orleans' (GNO) health care infrastructure, leaving behind a fragmented system and changing the city's health care landscape entirely. In September 2010, the Centers for Medicare and Medicaid (CMS) approved the Louisiana Greater New Orleans Community Health Connection (GNOCHC) 1115 Medicaid Waiver, which ensured that uninsured adults (19 – 64 years) who fall at or below 133% FPL can continue to access services through the network of community clinics that was expanded through a post-Hurricane Katrina CMS grant to restore and expand outpatient primary care services. As for pregnant women, the LAMOMS program provides Medicaid coverage to women during their pregnancies whose incomes do not exceed 133% of the Federal Poverty Level (FPL). However, LaMOMS coverage ends 60 days post-partum, after which time women above the basic Medicaid limit have no insurance.

The state launched the Birth Outcomes Initiative (BOI) in November 2010, a multifaceted effort aimed at improving the health of mothers and their children. One component of the BOI was improved care coordination, and IPC was identified as one approach to strengthen the coordination and provision of care for at-risk, low-income women with the goal of improving maternal and birth outcomes. Through the BOI, the LA-IPC Project was initiated. However, unlike that of the Grady Memorial IPC project, no one single site could serve as the center of IPC recruitment, enrollment, and service provision, due to the fragmented and decentralized nature of the health care delivery system across GNO. Healthy Start New Orleans was chosen as the source through which IPC case management services would be provided, with eligible clients potentially identified through a variety of methods and referred from several locations throughout the GNO community. In June 2012, CMS approved the addition of IPC to the GNOCHC 1115 Waiver, adding reimbursement for Healthy Start IPC case management services.

The LA-IPC Project

The overall goal of the LA-IPC Project was to improve the health of women and their reproductive health outcomes in terms of achieving optimally spaced, planned pregnancies and averting adverse birth outcomes by addressing the mothers' health issues through the provision of social support in conjunction with primary health care services. Through provision of IPC services, the State of Louisiana aimed to reduce the incidence of subsequent adverse pregnancy outcomes among women who have previously had: (1) a low birth weight (LBW) or VLBW baby, (2) preterm birth, (3) fetal death, or (4) infant death.

The Louisiana DHH BOI coordinated this IPC effort with GNOCHC primary care clinics and the HRSA-funded Healthy Start Program in New Orleans. The LA-IPC Project explicitly added the seven areas epidemiologically linked to adverse pregnancy outcomes and tested in Grady Memorial Hospital's IPC pilot study by integrating IPC activities and measures into existing HSNO programming[6]. Specifically, the following components were incorporated:

1. A comprehensive assessment of women's needs at the program entry
2. Creation of an individualized IPC plan
3. Service coordination
4. Face-to-face contact
5. Health education and advocacy

Outreach and enrollment began in July 2012, with a goal of enrolling 150-200 women. Women were recruited to participate through outreach activities in community and clinical settings: hospital neo-natal intensive care units (NICUs) and maternity departments, GNOCHC clinics, WIC sites, and home visits. Additionally, a High-Risk Registry of Medicaid covered preterm and low birth weight births was utilized by HSNO to identify women who have experienced a prior adverse pregnancy outcome. The LA-IPC Project targeted women with the following eligibility criteria:

1. Experienced one of the following adverse birth outcomes: low birth weight, very low birth weight, preterm birth, fetal death and infant death.
2. Of reproductive age
3. Any race and nationality
4. Medicaid and/or GNOCHC coverage
5. Not currently pregnant
6. Reside in Orleans or in the 5 high-risk zip codes within Jefferson Parish (East bank Metairie 70121, 70002, 70123) and (West bank 70072 and 70058).

Pregnant women and women who had a permanent method of pregnancy prevention, such as tubal ligation or hysterectomy, were excluded because the LA-IPC Project was designed to study the benefits of providing IPC care during the inter-pregnancy period and the impact on a future pregnancy. No direct incentives were provided to women to participate. However, participants were invited to attend special events to celebrate achievements, parenting classes, peer mentoring sessions, and provided with educational booklets.

Evaluation

The GNOCHC 1115 IPC Waiver described above required the evaluation described in this document. Louisiana's DHH BOI program contracted LPHI to aid in the design, facilitation, and implementation of

an evaluation plan for the LA-IPC Project. The LPHI Division of Evaluation and Research assisted with evaluation design as well as data analyses and reporting. The goal of the evaluation was to assess the acceptability and delivery of IPC services to the HSNO clients, focusing on the degree to which enrolled women received the services as prescribed.

Methods

LPHI conducted a prospective observational evaluation to assess the outcomes of IPC services provision among eligible women who experienced adverse pregnancy outcomes and agreed to participate in the program and to be followed for 18 months. On-going surveillance data on the acceptability and delivery of IPC care services were collected by HSNO. On a quarterly basis, LPHI evaluation staff received de-identified, client level, secondary data from HSNO assessment forms, which case managers used for comprehensive assessment of women's needs. The intermediate outcome measures listed below reflected the process of IPC care delivery:

i. Number of women who obtained a comprehensive medical assessment within 30 days of IPC enrollment including confirmation of screening for reproductive tract infection at postpartum visit
ii. Number of women who completed development of an IPC plan within 60 days of IPC enrollment
iii. Number of women who obtained a well-woman visit within 12 months following pregnancy including confirmation of a screening for reproductive tract infection
iv. Number of women who received screening and treatment for substance abuse
v. Number of women who received screening and treatment for depression
vi. Number of women who received screening and treatment for nutrition and/or weight including folic acid supplements
vii. Number of women who received screening and referral for domestic violence
viii. Number of women who received screening and referral for homelessness

xi. Number and percentage of IPC enrollees who adhered to family planning elements of IPC plan, including reproductive life planThe original evaluation plan included a second component, which was a comparison of birth/reproductive outcomes of LA-IPC participants to two groups: (i) women with qualifying adverse birth outcomes (ABOs) who received family planning services and (ii) women with qualifying ABOs who received NO family planning services and NO IPC. However, this component was not conducted, as discussed in the Results section below. A qualitative component was added, aimed at understanding the successes, challenges, and lessons learned in implementing the LA-IPC Project. A sample of HSNO outreach staff and case managers were interviewed to understand their experiences around recruitment, enrollment, and implementation of the LA-IPC Project. Additionally, interviews were conducted with a sample of HSNO IPC clients were interviewed to obtain their insight into enrollment and participation in the program.

Results

Prospective Observational Evaluation

Between July 2012 and March 2013, 47 women were enrolled into the LA-IPC Project, with monthly enrollments listed in Table 1. Intermediate outcome measures for these 47 enrolled women are outlined

in Table 2**.**

Table 1. LA-IPC Enrollment: July 2012 – March 2013

Month	# of Enrolled Clients
July ‘12	1
August ‘12	1
September ‘12	3
October ‘12	10
November ‘12	18
December ‘12	6
January ‘13	3
February ‘13	3
March ‘13	2

Table 2. LA-IPC Project - Intermediate Outcome Measures

IPC INDICATOR	N = 47 (100%)
Insurance Type	
Medicaid	25 (53%)
Private	5 (11%)
GNOCHC+ Take Charge	4 (8.5%)
LACHIP	3 (6.5%)
Uninsured	10 (21%)
Poverty level	
Below 100% of FPL	26 (55%)
100% - 185% of FPL	4 (9%)
186% or over FPL	3 (6%)
Not reported	14 (30%)
Race/Ethnicity	
African-American	42 (90%)
White	2 (4%)
Hispanic	1 (2%)
More than one race	1 (2%)
Not reported	1 (2%)
Education	
Bachelor’s Degree	1 (2%)
Some College	10 (21%)
High School Diploma	7 (15%)
GED complete	1 (2%)
Some High School	6 (13%)
Technical/Vocational Training	2 (4%)
Some middle school	4 (9%)
Not currently enrolled in school	16 (34%)

Has a doctor	
PCP	29 (62%)
OB/GYN	3 (6%)
No	15 (32%)
Adverse birth outcomes experienced	
Preterm	17 (36%)
Premature	7 (15%)
LBW	13 (28%)
VLBW	1 (2%)
Stillbirth	3 (6%)
Infant death	3 (6%)
Unknown	1 (2%)
Comprehensive medical assessment within 30 days of IPC enrollment	
Yes	19 (40.5%)
No	24 (51%)
Unknown	4 (8.5%)
IPC plan developed within 60 days of enrollment	
Yes	30 (64%)
No	17 (36%)
Currently using birth control	
Yes	27 (57%)
No	20 (43%)
Type of birth control (n=27)	
Depo-provera	15 (32%)
Birth control pills	4 (8.5%)
Abstinence	1 (2%)
Condoms	2 (4%)
Patch	2 (2%)
Implanon	3 (6.5%)
Adherence to family planning method (n=27)	
Yes	27 (100%)
No	0 (0%)
Homeless	
Yes	0 (0%)
No	47 (100%)
Experienced domestic violence	
Yes	4 (8%)
No	43 (92%)
Referral for domestic violence accepted (n=4)	
Yes	4 (100%)
No	0 (0%)
Consumption of illicit drugs	
Yes	2 (4%)
No	45 (96%)
Referral for drug rehabilitation accepted (n=2)	
Yes	1 (50%)
No	1 (50%)

Experienced depression	
Yes	17 (36%)
No	30 (64%)
Referral for mental health screening accepted (n=17)	
Yes	12 (76%)
No	5 (24%)
Currently smoking	
Yes	8 (17%)
No	39 (83%)
# of cigarettes smoked per week (n=8)	
1-6 cigarettes	4 (50%)
7 cigarettes – 1 pack	2 (25%)
2-3 packs	1 (12.5%)
Not reported	1 (12.5%)
Tobacco cessation referral accepted (n=8)	
Yes	4 (50%)
No	4 (50%)
Currently consuming alcoholic beverages	
Yes	10 (21%)
No	36 (77%)
Not reported	1 (2%)
# of alcoholic drinks consumed per week (n=10)	
1 or less	8 (82%)
2 – 7 drinks	2 (9%)
Not reported	1 (9%)
Referral for alcohol rehabilitation accepted (n=2)	
Yes	0 (0%)
No	2 (100%)
Currently diagnosed with an STD	
Yes	1 (4%)
No	46 (96%)
STD treated (n=1)	
Yes	1 (100%)
No	0 (0%)
Women with dental/periodontal problems	
Yes	3 (6%)
No	43 (91%)
Unknown	1 (3%)
Referral for dental/periodontal issues accepted (n=3)	
Yes	3 (100%)
No	0 (0%)
Dental/periodontal infection treated (n=3)	
Yes	1 (33.3%)
No	2 (66.7%)
Consuming Folic acid	
Yes	23 (49%)
No	24 (51%)

Over half (53%) of participants were Medicaid clients, while 8.5% were covered by GNOCHC. Among participants who reported income level, more than half (55%) were below 100% of the Federal Poverty

Level (FPL). The vast majority of clients (90%) were African-American. Sixty-two percent (n=29) of clients reported that they had a primary care physician, while 32% were without a doctor. Preterm and low-birth weight infants accounted for nearly two-thirds of the adverse birth outcomes experienced. Nineteen clients (40%) received a comprehensive medical assessment within 30 days of enrollment. An IPC plan was developed within 60 days of enrollment for 64% of enrolled clients. Regarding family planning, 27 out of the 47 enrolled clients (57%) utilized a birth control method, with Depo-Provera being the most prevalent method utilized. All 27 clients utilizing a birth control method reported compliance with their chosen method.

While no clients were homeless, 8% (n=4) experienced domestic violence and all 4 accepted referrals for this. Two clients (4%) consumed illicit drugs, with 1 accepting a referral for drug rehabilitation. Thirty-six percent (n=17) experienced depression; 12 of the 17 (71%) accepted a referral for mental health screening. Among the eight clients (17%) who were smokers, 4 accepted a referral for tobacco cessation. Twenty-three percent (n=10) consumed alcoholic beverages, though 8 out of these 10 clients had 1 drink or less per week. One client (1%) had an STD at the time of enrollment, which was subsequently treated. Three clients (6%) experienced a dental/periodontal problem, all of whom accepted a referral for it; 1 of the 3 clients reported that her dental/periodontal infection was treated.

In the original evaluation plan, LPHI planned to conduct a comparison of birth/reproductive outcomes of LA-IPC participants to two groups: i) women with qualifying adverse birth outcomes (ABOs) who received family planning services and ii) women with qualifying ABOs who received NO family planning services and NO IPC. However, with a small sample size of 47 women, no meaningful comparisons or analyses could be conducted. After multiple discussions with project partners at DHH and GNOCHC, the team collectively decided that this component of the evaluation would not be carried out, as enrollment unexpectedly fell far below the target of 150-200 women.

Qualitative Interviews

Upon deciding that the birth/reproductive outcomes comparison would no longer be conducted, a qualitative component was added to the evaluation. Four HSNO outreach staff and four case managers were interviewed, in addition to four clients who participated in the LA-IPC project. Eligible women who refused to participate could not be reached for an interview.

- Recruitment

Outreach staff discussed how hard it was to find women particularly because they move so often. One staff member explained that. "*…these people stay in a location for a couple of months and then leave…it's hard to keep up with them.*" When conducting door-to-door outreach in the community, outreach staff were cautious to not to make women feel targeted or sought after for a particular reason, as that would turn them off. "*We didn't make it seem like we were actually going directly to their house…we just start from the corner and leave flyers on every house…when we get to their house and if they're there, we explain that we're just in the community and we let them know about the program.*" Health fairs were not a particularly productive or engaging experience, as outreach staff explained that most women are just walking around collecting pamphlets, looking for free items. As part of the recruitment process, outreach staff informed women that the program offered case management services, through which they can get referrals for different government programs like housing, WIC, good stamps,

childcare assistance, and job training. Interestingly, one outreach staff member mentioned that sometimes, *"…they [women] misconstrue referral so we really have to break that down….they hear, 'Oh they gonna get me some housing, they gonna get me a job,' because that is what they want to hear because they need it so badly."* When asked what about the program appealed most to her clients, one case manager said, *"Incentives, gift bags, and supplies…because most of these moms can't afford to buy those things on their own."*

- Implementation

Case managers spoke at length about how difficult it was for them to continue to see clients and keep them engaged. One stated, *"Doing case management with these women is very hard….they are just the hardest clients. They do not comply, you have to track them down, run behind them."* Interviews with case managers revealed that many issues clients faced took precedent over IPC programmatic components. *"The education that we are providing is on the backburner when they are focused on their one-pound baby trying to get better in the NICU,"* said one case manager. Another case manager added, *"After all of their problems are gone…'I don't have a place to live, I don't have food in my house, or I can't pay my electric bill or I can't pay my rent, my baby is in the NICU', then they will be willing to listen to what you have to say."* They talked about how clients will accept the education, but a lot of times it seems like life is just happening to them and they can't look at things to overcome them. One case manager noted that, *"…what we try to offer is the education to avoid another adverse birth outcome, but that's not really what they want."* She provided an example of her very first IPC client who needed Medicaid; once she helped her fill out the Medicaid application, she never heard from her again, *"…it's usually just one specific thing that they are looking for"*. Overall, case managers often felt at a loss when trying to help their clients, saying, *"We just don't have the resources to offer them what they really need, especially housing or jobs. This city in general, we just don't have enough."*

- Success stories

Although many barriers to implementation were discussed, case managers had many positive experiences providing case management to their clients. They strongly felt that because of their efforts, many of their clients have started taking folic acid and initiated breastfeeding. One case manager spoke about a client whom she successfully connected to the Early Steps program and another client who was able to get a job and move out of her parents' house. Another talked about the relationship that case managers have with their clients, *"They're excited that somebody cares about them…you're talking to them about what they want to do about birth control, or plans for their outlook on life. We encourage them a lot….and they're willing to be excited about their plans."* Similar thoughts were shared by another case manager, *"…the key component is the relationship; that is the biggest thing, you know. If your clients feel like they can't trust you in any kind of way or if they are not safe with you, they are going to put up a lot of resistance. That moment when they feel safe and know you have their best interests, they will engage and stay active. It takes some time, but it is important to be honest and I never let them know I can provide something when I cannot."*

Participating clients talked about how useful the IPC program was to them for a variety of reasons, such as job training, finding health care providers for their kids, and having a support system under difficult situations. One client said, *"I really needed to find a job and housing…Healthy Start helped me with job placement, but getting housing is really hard."* Interviewed clients spoke highly of the program, as one

said that, *"Everything was useful….other women should definitely take advantage of it, because you never know what information they have that might be useful to you or your baby."* Another client said saying that she was so happy to have been a part of it, as she received services she didn't even know she needed, such as learning about post-partum depression, how to maintain a good diet, and why it is important to pump. When one client was going through a tough time trying to find a job, she spoke fondly about her case manager, *"…I cried on her shoulder and she showed me a lot of sympathy and empathy that I really needed at the time."*

- Areas for Improvement

When asking clients and case managers how they would like to change or improve the program, both groups talked about the benefit of additional prenatal and parenting classes. One client stated, *"Sometimes, you think you're the only one going through what you're going through, so talking with other women helps you see how they deal with it all."* Case managers agreed that such classes are a great opportunity for clients to meet other women who share comparable experiences and can understand or empathize with the situation they are in, or just learn from each other. Another change recommended by case managers were incentives, as they believed it could help with keeping women in the program for longer periods of time. One client spoke about the enrollment process, suggesting that perhaps the first visit take place in the Healthy Start office or elsewhere outside of the home, as it was awkward to have a complete stranger come into your house and go through a lengthy enrollment process, collecting a lot of personal information. Similarly, a case manager discussed the need to build a bond with a new client, especially as a stranger coming into her home, *"…it takes some time, you know, but I'm always very honest with my clients. I don't pretend and I don't let them know that I can provide stuff that I cannot."* She stressed the importance of gaining clients' trust and establishing rapport, which allows clients to feel safe enough to discuss their history and share their story.

Discussion

Implementing the IPC project across the New Orleans area revealed how challenging it is to identify and reach the target population. Despite extensive outreach by HSNO staff over a period of nine months, 47 women were recruited to participate. One source utilized by outreach staff was a High-Risk Registry of Medicaid-covered preterm and low birth weight births, which included the mother's contact information as well as the birthing facility. However, as outreach staff used these lists to contact women by phone, mail, or door-to-door outreach, they found that home addresses had changed, phones were disconnected, or the information was incorrect. In many instances, the addresses listed were those of their parents or grandparents, though the mothers didn't actually live there. *"As we were out there, we could count the heads of how many people we actually talked to. Outreach was more like not reaching,"* said one outreach staff member. Interestingly, although door-to-door outreach was an extremely time-consuming recruitment strategy, an outreach staff member stated that, *'Door-to-door is the only way you can really find out if the person is still there or not.'*

The recruitment methods implemented by HSNO outreach staff contrasted significantly from that of the Grady Memorial Hospital IPC pilot study. The study sample consisted of 29 women who delivered a very low birth weight infant in Grady Memorial Hospital during 11/2003 – 3/2004. Eligible women were identified and enrolled in the hospital by program staff shortly following the delivery of their baby.

Translating this closed, hospital-based model into community-wide implementation utilizing a variety of recruitment and referral sources across New Orleans proved extremely difficult for outreach staff to find eligible women interested in IPC services, as GNO's health care system is severely disconnected and challenging to navigate. Although outreach staff did not have the authorization to recruit directly from hospital NICUs or L&D departments, they walked into hospital-affiliated OB/GYN clinics with the hope of speaking to women about the program, but were asked to leave. As one outreach staff member said, "*You have to follow a certain guideline or protocol that we didn't have in place. Some of the clinic offices wouldn't even let us leave flyers."* Another outreach staff member spoke about recruiting women from her own doctor's office, since she had a good relationship with her doctor. With so many programs across the city, hospital/clinic staff and administrators would ideally be engaged during the planning or early stages of program implementation to gain their buy-in and establish formalized processes of client identification referral. Collaborating with partners and stakeholders who are invested in the program is central to its successful adoption.

From the perspective of outreach staff, however, recruiting from clinics may or may not be ideal for women in the target population. Eligible clients are often in very vulnerable situations which they may not want to disclose or make known in a public setting. One outreach staff described this further, *'I've seen it in a room full of people, when programs try to get women to participate and they talk about referrals to this and that…but women can feel ashamed because they don't want to say, oh yeah I need help."* Through door-to-door outreach, case managers can, *"…meet them [clients] at their comfort zone, on their porch. They feel relaxed, they're not waiting on a voucher, not waiting to see the doctor. They're at home, and some of them even invite you inside."* Although staff knew specifically where target clients lived (based on the registry list), they wanted to be perceived as doing outreach across the entire community to make women feel more comfortable, thereby avoiding questions such as, 'Why are you looking for me? How did you find out that information about me?'

Recruitment was not the only challenge, as barriers existed around providing case management to clients as well. Difficulty finding clients translated into difficulty retaining clients, as phone numbers and addresses continued to change, making it hard to follow up with them a consistent basis. Additionally, most clients were not primarily interested in case management, as they not only had a very sick baby, but also struggled to pay rent, find a job, or get a GED. One case manager summarized their clients' circumstances, "*You have to realize that a lot of our clients are from pillar to post...it's hard to contact them because they move from this house to this house to this house. Or their number is disconnected or they're on SSI and have to wait for money to come in. The hardest part for me is that I worry about them and their baby...we don't have the resources to give them what they need. It's not that they don't want to be in this, they're just in a really bad situation."* Case managers spoke about clients who were able to overcome these barriers, which puts them in a more comfortable situation to receive IPC case management services.

Another significant factor that case managers identified as a vital component of IPC work was developing a positive relationship with clients. Building rapport and gaining clients' trust is key to successfully involving them in the program, as they look to case managers as a source of support, which most clients often lack. One case manager talked about establishing a relationship with clients in order for them to

feel a level of comfort that encourages them to open up and look for whatever they need or don't even know they need. An outreach staff member discussed a similar type of experience when recruiting women, *"I'm a mom, too. I make them feel like I'm just like you and this program is made for women like us…I make myself a part of their circle. I don't tell them I'm an outreach worker of Healthy Start and start telling them about a program you want them to be a part of. Just make it like, 'this is us.'"*

Conclusion

IPC is a relatively new approach to infant mortality reduction, as the Grady Hospital IPC project was the first published study of its kind that showed strong results. Although additional evidence is needed regarding the efficacy of integrating the 7 IPC components in different contexts, the LA-IPC project identified several important factors to consider when planning to implement a new model of care. From recruiting 47 high-risk clients across various community settings to providing case management services to clients overwhelmed with multiple stressors, many invaluable lessons were learned throughout project implementation. Gaining an in-depth understanding of the target population and the issues they face is crucial to determining how to effectively address their needs. Moreover, it is essential to recognize that the environment in which care is provided can significantly affect how services will actually be delivered. The majority of IPC clients lack transportation, stable housing, childcare, employment opportunities, and social support, while living in a city with a fragmented health care system that often lacks the resources to meet clients' basic needs. Such challenging circumstances can substantially impact program adoption, provision of services, and program participation. Adapting a model of care originally implemented in a closed hospital setting to an open healthcare system requires extensive formative research to thoroughly understand how to successfully provide services tailored to the target population.

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