Southern California CSU DNP Consortium

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LOYALTY FROM PRENATAL CARE TO DELIVERY: MANAGING EXPECTATIONS AND INCREASING PATIENT SATISFACTION

A DOCTORAL PROJECT

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DOCTOR OF NURSING PRACTICE

By

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ABSTRACT

Historically, a metropolitan county hospital in southern California had one of the largest obstetrics departments in the country with 30% of county deliveries occurring at that facility during the 1980s. In 1995, MediCal laws changed; in addition to reimbursement policies, patients insured by MediCal were given the opportunity to access private hospitals for delivery. As a result, deliveries at the facility decreased from approximately 100 per shift in the early 1990s to barely 100 per month currently.

Low LDR (Labor-Delivery-Recovery Room) utilization, and specifically having patients cared for prenatally in this facility with delivery elsewhere, is an important issue. Initial project goals were to increase patient retention rate to delivery to 90% in the Certified Nurse Midwife (CNM) clinic within 6 months, and to decrease missed appointment rates for prenatal and postpartum appointments to 5% or less with the emphasis on new prenatal patients and postpartum patients in the same time period.

One of the frameworks used for this doctoral project addresses the concept of patient satisfaction as it relates to loyalty and retention. In the Patient Retention Model (Bendall & Powers, 1995), which comes from marketing and business, the concept of patient expectation is critical to understand when considering loyalty to a provider or to an organization; expectations can impact patient decision making and lead to either provider retention (loyalty) or provider switching. Patient satisfaction is highly influenced by individual expectations about the quality of health care received.
Expectations have both a cognitive and an emotional facet that must be taken into consideration when determining how to meet those expectations. Also used to frame this doctoral project is the PDSA (Plan-Do-Study-Act) Model (Deming, 2000). Once key changes are identified, they are implemented in a cyclical fashion using the PDSA Method (Deming, 2000). Interventions implemented were as follows:

- Initial obstetric information sharing by CNMs with patients
- Laborist Model information sharing by CNMs with patients
- Missed appointment follow up by CNMs
- Scheduling the Hospital Tour by CNMs with documentation that Tours were taken
- Postpartum appointment scheduling by CNMs at 35 weeks.

Progress on the following clinical outcomes (all in CNM clinic) shows enhanced patient loyalty:

- New prenatal patient missed appointments went from 34% to 21%
- Return missed appointments by patients went from 9.8% to 5%
- Delivery rates for patients seen prenatally went from 67% to 87%
- Postpartum missed appointments for patients is at a baseline of 27%; this will continue to be tracked.

There is evidence that this county facility is moving toward the goal of enhanced patient loyalty, although all clinical goals have not been met yet. This project is still in progress.
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BACKGROUND

Historically, a metropolitan county hospital in southern California had one of the largest obstetrics departments in the country with 30% of county deliveries occurring at that facility during the 1980s. In 1995, MediCal laws changed, along with reimbursement policies and patients insured by MediCal were given the opportunity to access private hospitals for delivery. As a result this county facility then became the hospital of the “last resort.” Patients viewed this as their opportunity to access private hospitals to deliver and avoid the stigma of delivering at a county facility. Private hospitals were happy to have these easy, healthy deliveries and receive payment from MediCal. As a result, deliveries at the facility went from approximately 100 per shift in the early 1990s to barely 100 per month currently. In response a new hospital facility was built in 2008 and the delivery of care changed from four patients to a delivery room to all patients having private Labor-Delivery-Recovery rooms (LDRs). The care that patients receive has been excellent as evidenced by the fact that surrounding hospitals transfer complicated patients to this facility for care.

The county hospital prenatal Certified Nurse Midwife (CNM) clinic remains busy with an average of 35 new prenatal visits and over 200 return visits per month. A High Risk Obstetric clinic with similar number of patients seen per month is staffed by medical residents. World renowned physicians in specialty care are available for all patients along with a team of six clinical CNMs. Even though these clinics are busy, historically, only 65-75% of low risk patients and about 65% of high risk patients have delivered at the county facility. The reason behind patients accessing the facility for prenatal care and then choose to deliver their babies elsewhere is puzzling.
Contributing Factors

According to the MediCal reimbursement policies, normal obstetrical care including prenatal care and a normal vaginal birth is reimbursed for approximately $1088.56 (not including miscellaneous hospital charges). If a woman delivers at a hospital different from where she received prenatal care, then the “delivering” hospital is reimbursed $544.28, which is 50% of the total payment that is paid for the care for a pregnant woman (Global Policies, 2013). This has created a situation where providers at the county facility may follow a woman during an entire pregnancy and then, if she delivers at another facility, the county facility loses half of the reimbursement. This has left a large financial burden.

Over the years, whenever possible, patients were asked why they decided to deliver elsewhere with varied and vague responses. Reasons are often related to the fact that the other hospital was “closer,” when in fact, at times the hospital chosen was only a couple of blocks away from the county facility. Once the county facility moved into a new building in 2008 with ten state of the art Labor-Delivery-Rooms (LDRs), it was presumed that the situation with changes in delivery location would cease, however that was not the case. The delivery rate has increased, but not to pre-medical payment change levels (see Figure 1). The LDR capacity with full staff is 8-10 deliveries per 24 hour period but the facility is presently operating at 2-5 babies per 24 hour period, which is well below capacity.
Figure 1. The means of initial prenatal visits seen in CNM clinic; the means of return visits seen in CNM clinic; mean percentage of CNM patients that delivered in our facility. This chart shows an increase trending toward where we want to go. These trends will be monitored monthly for 2015 and 2016.

The county facility uses a Laborist Model with scheduled teams of physicians and midwives to cover deliveries 24 hours a day. Because it is a teaching hospital, many medical students and residents rotate through both the clinic area and in the Labor and Delivery area (L&D). This can give patients a sense of instability when they have a different provider every time they come for a prenatal visit. Although there is more stability in the CNM clinic since there are no rotations and CNMs try to stay with the same clinic day each week, patients still are not aware that they may not be familiar with the delivering care provider which may cause some concern for county patients.

When the new hospital building opened, there were patient complaints about a banner hanging outside which contained a picture of a face with a large eye. Since the majority of patients are Hispanic, staff members conjectured that they saw the sign as evil, or the “evil eye.” After several months, the hospital removed the sign. However, no change was noted in the delivery rate.

**Statement of the Problem**

Low LDR utilization, specifically having patients cared for prenatally in our facility with delivery elsewhere, is an important issue for our facility. There is also a
patient care quality issue. When women obtain prenatal care at the CNM clinic and deliver at another facility, staff members at the delivery facility may be unaware of patient medical history and health care issues, and thus, may not be able to access to medical records in time to benefit laboring patients and their babies.

Research has shown that continuity of care is related to better maternal and fetal outcomes and that satisfaction with that care is a positive influence on whether patients will continue to seek care (Lowry, Saeger, & Barnett, 1997). Patient satisfaction is closely related to expectations of care, accessibility, availability, convenience and continuity of care by providers (Lowry et al., 1997). However, when there are barriers to accessing care either from structural, individual or sociodemographic factors, obstetric patients may fail to seek care putting them and their infants at risk. Structural barriers can include the facility setting and parking, access to appointments, and financial assistance. Patient barriers can include knowledge deficits or misunderstandings, and feelings about the care as well as the care providers. The sociodemographic barriers can include poverty, low levels of education, and lack of staff cultural diversity (Lowry et al., 1997).

Patient satisfaction is highly influenced by individual expectations about the quality of health care received. Expectations have both a cognitive and an emotional facet that must be taken into consideration when determining how to meet those expectations. Patient satisfaction is affected by perceptions, attitudes, and expectations that patients have and how they relate to the healthcare that they receive (Prudencio, Mamede, Dantas, de Souza, & Mamede, 2013).
Supporting Framework

Patient Retention Model

Both the Patient Retention Model by Bendall and Powers (1995) and the Plan-Do-Study-Act (PDSA) Model of Improvement by Deming (2000), as proposed by the Institute of Health Improvement, frame this quality improvement project. A discussion of both of these theories will be provided here.

The Patient Retention Model (Bendall and Powers, 1995) is derived from marketing and business. The framework (see Figure 2) addresses the concept of patient satisfaction as it relates to loyalty and retention. Key is the concept of patient expectation which can impact patient decision making and lead to either provider retention (loyalty) or provider switching.

In the Patient Retention Model (1995), the basic expectations of a patient as she enters a health care setting for care influence all other experiences. If the patient receives what she is expecting, then she will be pleased or satisfied with the service. If the patient does not receive what she was expecting, then she will not be satisfied. “Patient satisfaction or dissatisfaction is viewed as an attitude that derives from the confirmation or disconfirmation of expectations and loyalty tends to result from satisfaction with a service” (Bendall & Powers, 1995, p. 50). The goal of the county facility is patient satisfaction as it will lead to retaining the patient. The initial satisfaction attitudes of the patient can lead to positive word-of-mouth behavior because the expectations were met, or in contrast can lead to complaint behavior when expectations were not met. If a woman was satisfied, this positive word of mouth behavior might be her telling family and friends about the great care she is receiving. This would in turn encourage her family and friends to come to receive care. If she did not receive care per her expectations, she would complain to her family and friends, allowing them to discourage her from coming back to our facility as well as encouraging her to go to another facility. This would lead to provider switching.

Patient expectations are developed from several influences, including past patient experiences and the experiences of friends or family. Expectations can also be affected by the patient’s own preferences and needs, as well as her current anxiety level. Younger age groups and the middle-class may be more likely to express dissatisfaction with health care (Fitzpatrick & Hopkins, 1983). Recipients of care may be more concerned or dissatisfied with the process of health care delivery (e.g., wait times, communication about prenatal care process, or friendliness of staff) than with the outcome of care
(Fitzpatrick & Hopkins, 1983). All of these potential influences need to be examined when determining the expectations of patients and can be considered in thinking about practice changes at the county facility.

Based on the Patient Retention Model, several factors can affect satisfaction with health care. These factors include: time lags between provider visits, quality of care, communication with staff and providers, and external factors. As the patient reflects back on her experience, she will determine whether the experience was either positive or negative. During the time lag between the initial experience and future experiences, there are opportunities for providers to address any issues related to satisfaction that have come to light (Bendall & Powers, 1995). The quality of communication between patients, providers, and staff members includes a level of responsiveness. Responsiveness is defined as the effect that can be attained when institutions and institutional regulations are designed in such a way that they are appropriately responsive to patients’ expectations of care (De Silva, 2000). In the case of care delivered by CNMs, positive communication and responsiveness to their needs can greatly influence the overall outcome. Responsiveness can turn a positive experience into a more positive experience and can turn a negative experience possibly into a positive experience. “Good communication and attentiveness to patient concerns have a major impact on how the patient will evaluate the care received” (Bendall & Powers, 1995, p. 50).

Perceived quality of care is another factor that can play a role in patient views of satisfaction. When patients perceive that they are experiencing excellent quality of care, they are more likely to continue to return to care providers. The factors that contribute to positive perceptions are interpersonal quality of care and technical care. The
interpersonal quality of the care is judged by how the provider responds to the needs or concerns of the patient as distinct from the actual care given. Technical care is judged by patients in relation to provider affect and individual treatment rather than on accuracy and reliability (Fitzpatrick & Hopkins, 1983).

Many external factors can also affect patient satisfaction. These factors may be completely unrelated to providers and the care provided, however, they still affect how patients view the care received. Structural quality factors are related to access to care, continuity of care, costs and accommodations. Process quality is related to whether the patient was treated with respect and whether information was given correctly and in a timely manner. This is closely related to service quality which includes positive communication, positive staff interactions, and adequate signage (De Silva, 2000).

All factors (time lag, communication, perceived quality of care, external factors) work together to bring the patient to the next level or Later Satisfaction Attitudes (see Figure 2). At this evaluative point, the patient has considered all of the information, experiences and perceptions using the frame of looking in the past and determining whether an experience was positive or negative. She will either engage in positive word of mouth or complaint behaviors, which will in turn reinforce satisfaction levels experienced. These attitudes and behaviors impact whether the patient will remain loyal to the health care setting and develop the “intention to return and recommend” or will begin provider shopping for a better health care provider which leads to provider switching (Bendall & Powers, 1995).
A facility interested in positively affecting patient satisfaction can use this framework and design a patient retention plan. Bendall and Powers have six recommendations for such a plan.

1. Gather information on patient expectations before the first encounter if possible or during the encounter, in order to adjust any unrealistic expectations.
2. Give clear information that helps patients to understand the system in which they are about to become immersed.
3. After the initial visit, immediately assess patient satisfaction. This is to determine any dissatisfaction that could be possibly resolved, as well as to determine intention to return and recommend.
4. During all encounters, influence word-of-mouth communication which “not only influences the retention of an existing patient, but also can affect the ability to attract future patients” (Bendall & Powers, 1995, p. 52).
5. Inform patients of any practice changes that have resulted from patient suggestions.
6. Promote an atmosphere that encourages patient suggestions and complaints.

**Plan-Do-Study-Act (PDSA) Model**

The quality implementation theory used for this doctoral project is the PDSA Model (Deming, 2000). There are three questions that need to be answered at the onset of a quality improvement process. What are we trying to accomplish? How will we know that a change is an improvement? What changes can we make that will result in improvement changes? Once the key change is identified, it is implemented in a cyclical fashion using the Plan-Do-Study-Act Method (Deming, 2000). During planning, barriers
to the change are determined. These may be cultural or organizational. The Plan phase is
to create a plan for a learning opportunity and to make a prediction of what the answers
to the questions might be. The Do phase entails actually attempting the plan, while
keeping track of data on the processes of change. During the Study phase, process and
outcome data are observed and compared to the prediction. The data is studied to see if
further changes need to be made for improvement. The Act phase is utilized to either
make the successful changes permanent or to adjust and refine the change in order for an
additional round of the study to be completed. At this point, the change can be refined
and the cyclical pattern continues with the planning phase again until a successful change
is made (Breakthrough Series, 2004).

**Project Goals**

The goal of this Doctor of Nursing Practice project is to increase the delivery rates
and postpartum visits in the county facility of patients who have been seen in the CNM
prenatal clinic. The specific aims are to monitor changes implemented by the nurse
midwives in their efforts to increase the retention rate of new, returning, and postpartum
patients.

In this ongoing project, nurse midwife efforts will address both prenatal,
intrapartum, and postpartum care expectations in order to increase patient retention
(through delivery and postpartum) and loyalty to the metropolitan county hospital. A
specific systematic approach is based on the Model for Obstetric Patient Retention and
the literature review on patient satisfaction and management of expectations for
obstetrical care. Incremental practice changes will be attempted using the PDSA model.
During prenatal visits, nurse midwives will educate the patients on what is to be expected
in their care in this facility as well as identify and address other issues that may be affecting retention. All efforts will be made to enhance patient loyalty to the facility. An evaluation of the trend in missed appointment rates, delivery rates and postpartum visit rates will determine effectiveness of the practice changes.

By implementing these multifaceted interventions, the goals include increasing loyalty to the facility and patient retention from prenatal care to delivery through to postpartum; increasing patient retention rate to delivery to 90% in the CNM clinics within 6 months; and decreasing the missed appointment rate for prenatal and postpartum appointments to 5% -10% or less with the emphasis on new and postpartum patients.
REVIEW OF LITERATURE

Overview

The literature search was done using PubMed, CINAHL, and Google Scholar. The search was restricted to English language publications from any year. The search terms included: customer/patient satisfaction, customer/consumer loyalty, provider-patient interactions, prenatal/antenatal care, hospital choice, expectations of care, laborist/midwifery model of care, and perceived quality of care, as well as provider engagement, provider motivation, provider learning, audit and feedback, and behavior change adherence.

Patient Satisfaction

Patient satisfaction in prenatal care is a multi-dimensional concept with each patient experiencing differing needs and expectations. Many studies were found related to consumer/patient satisfaction. Each study used different questionnaires to assess patient satisfaction both antenatally and intrapartally (Lowry et al., 1997; Matejic, Milicevic, Vasic, & Djikanovic, 2014; Prudencio et al., 2013; Smith, 1999). Overall, these authors found that obstetric patient satisfaction suffered when the following areas did not receive adequate attention: clinic environment, wait time in the clinic, information sharing, and peer support. In a comparison of patient satisfaction in two prenatal clinics in Florida, the conclusion was reached that the more satisfied the patient was with structure and process variables, the more likely that she would continue with care in that facility (Lowry et al., 1997). In a study of over 34,000 hospitalized obstetric patients in Serbia, primiparous women reported needing more access to information and support, especially regarding labor, breastfeeding and newborn care than did multiparous women (Matejic et
al., 2014). This latter finding indicates that satisfaction factors may differ slightly between primiparas when compared with multiparas women.

**Laborist Model of Care**

An additional concern for this project has been to determine if patients can be satisfied with a laborist model of care as used in many group practices. There are two main types of obstetric practices: personal caseload and shared caseload (e.g., the laborist model). In the personal caseload practice, providers see their own patients prenatally in the clinic with the understanding that they will attend the birth. In the shared caseload or laborist model, providers may see patients consistently during prenatal care, but deliveries are handled by the team of providers (doctors and/or midwives) that are scheduled for the day; thus, patients may not know who will be attending the birth. High levels of satisfaction were found with the laborist type of practices as long as there was advance communication with patients about the procedure of the practice. (Morgan, Fenwick, McKenzie, & Wolfe, 1998; Shapiro, 1999; Srinivas et al., 2013). Managing expectations of patients both in prenatal clinics and in labor units is crucial; studies show that satisfaction levels can stay high despite the fact that in many practices, patients may not know in advance which provider will deliver their babies. As long as patients are aware and there is participation in decision making, satisfaction is maintained (Shapiro, 1999)

**Patient-Provider Interaction**

In several qualitative studies, researchers explored the dynamics of patient and provider interaction (Andrew, 2014; Lundgren & Berg, 2007; Raine, Cartwright, Richens, Mahamed, & Smith, 2010). They reviewed some crucial components of
effective and ineffective communication. Effective communication is seen as providing an overview of prenatal care, and giving advice on expectations of pregnancy and how to manage discomforts as well as complications of pregnancy. Effective communication gives patients a sense of well-being and being well cared for (Raine et al., 2010). When communication is ineffective, patients may have a sense of having providers with dismissive attitudes, causing them to not feel confident in the care which can decrease attendance at prenatal care visits, or lead to clinic/hospital switching (Raine et al., 2010).

An additional aspect found to be important for patients is to perceive provider support and communication about the pregnancy, the labor process as well as the breastfeeding process (Matejic et al., 2014). In their study of 34,000+ Serbian women, Matejic et al. found that discussion on how to best navigate the health care system was a crucial aspect of information sharing. They also found that first time mothers need more expectation management than multiparas; the authors posited that these mothers have never been through the process before so they may have more unrealistic expectations that need to be managed more pro-actively (Matejic et al., 2014).

In a phenomenologic study of pairs of patients/nurse midwives, Lundgren and Berg (2007, p. 222) found six pairs of responses that were necessary for adequate patient preparation during pregnancy:

- Surrender-availability
- Trust-mediation of trust
- Participation-mutuality
- Loneliness-confirmation
- Differences-support uniqueness
• Create meaning-support meaningfulness.

The first word in each pair belongs to the patient; the second to the nurse midwife. Being aware of the interaction of provider and patient is a process that involves the body and the mind from prenatal care through delivery and through postpartum. The authors concluded that the facility that allows the support of that process will do well (Lundgren & Berg, 2007).

Quality Implementation

The things that make patients most unsatisfied with obstetric care can be environmental factors related to poor clinic hygiene and appearance, long wait times to be seen by the provider, ease of traveling to and access to the clinic, rude or unhelpful hospital staff, or not feeling comfortable asking questions of the provider (Counte & Meurer, 2001). All of these can be assessed and changed through quality improvement initiatives. The process of Continuous Quality Improvement (CQI) is involved and can take up to 5-7 years and includes a financial obligation to which many organizations are not willing to commit (Counte & Meurer, 2001). However, this process is associated with a positive perception by patients that can lead to better patient retention and satisfaction (Counte & Meurer, 2001). This is especially true when the focus is on areas such as structural or process quality improvements that make accessing care easier and more satisfying for patients. Studies have shown that these changes are perceived as an increase of the quality of care; also, unit cost is decreased and efficiency levels are increased (Saronga et al., 2014).
Changing Provider Behaviors

In order for patients to experience optimal provider-patient communication, there will have to be a change in the current ways care is provided at the county facility where this project is housed. The process of changing provider behavior has been studied by many experts. There are several studies that show that Audit and Feedback (A&F) is one of the most successful ways of attaining a change in behaviors in providers (Foy, 2005; Hysong, Best, & Pugh, 2006; Hysong, Teal, Khan, & Haidet, 2012; Ivers, Jamtvedt, Flottorp, Young, Odgaard-Jensen, French, O'Brien, Johansen, Grimshaw, Oxman, 2012; Ivers et al., 2014; Johnson & May, 2015; van der Veer, de Keizer, Ravelli, Tenkink, & Jager, 2010). Social-cognitive theories do not apply within this project because they appeal to individual self-interest with an emphasis on promoting financial incentives (Johnson & May, 2015). Instead, interventions that “contribute to normative restructuring of practice, modify peer group norms and expectations, reinforcing modified peer group norms by emphasizing the expectations of an external reference group (e.g. Reminders, A&F)” have the best opportunity for a successful behavior change (Johnson & May, 2015, p. 1).

According to Ivers et al. (2012), A&F is most effective when the following features exist:

1. The message is given by a supervisor or respected peer.
2. There are specific goals with an action plan.
3. The format of the feedback is both verbal and written.
4. The frequency of feedback is timely, at least monthly.
5. There is a measurable target with a specific action plan for the interventions.
Many studies (Foy, 2005; Ivers, Jamtvedt, Flottorp, Young, Odgaard-Jensen, French, O'Brien, Johansen, Grimshaw, Oxman, 2012; Ivers et al., 2014) were unclear as to whether the feedback should be individualized or more effective when given as a group. Foy et al. (2005) surmised that group feedback may be more effective because peer pressure would come into play and encourage behavior change; however, this was not tested. Other research findings (Hysong et al., 2006; Hysong et al., 2012) suggest that individual feedback is more effective because the message could be more focused on an individual’s performance, which should increase adherence to the behavior change.

Including the following factors can make the process of A&F as effective as possible (van der Veer et al., 2010): trust in the quality of data, motivation of the recipients, organizational factors (e.g., availability of resources, support by management), and outcome of expectancy (i.e., participants seeing an opportunity for improvement). A&F was more effective with process of care measures (e.g., practice changes) rather than outcome of care measures (e.g., lab values).

Hysong et al. (2006) studied several high performing hospitals and compared them to low performing hospitals to study the implementation of A&F. Through this study they were able to note what practices were the most effective and led to provider behavior change. They found that the high performing hospitals all used timely, individualized, non-punitive and customizable feedback. They surmised that these qualities were the most important in descending order of importance (S. Hysong et al., 2006). Low scoring hospitals did not use any of these elements in their A&F processes. These authors found that when the feedback was presented in this way individuals were engaged as they were given opportunities to be active participants rather than passive
recipients. Their study findings support Feedback Intervention Theory (FIT) by Kluger (1996), which posits that feedback interventions change the locus of attention of providers. Provider performance is based on three levels of control: task learning, task motivation, and meta-tasks (including self-related) processes. The more the person is focused on the task, the better the task is performed correctly; the more the person is focused on themselves, the less the task is performed correctly (Kluger, 1996). A&F, thus, brings the focus back to the task which can encourage positive behavior change.

**Provider Motivation**

The issue of provider motivation to make behavior changes is a huge factor in trying to make changes in practice. Part of preparation for practice change is securing stakeholder interest and involvement (Foy, 2005). Providers may suffer from apathy related to the situational environment in the facility at the time of needed behavior change. Apathy (also known as organizational indifference) is quite common in institutions where there is a high level of bureaucracy and an individual or group can become de-motivated from long term situations that are not readily resolved (Esfahani, 2013). The use of A&F has been found to alter individual motivation, at times, giving providers the motivation to override apathy and begin a behavior change, despite possible challenging circumstances (Foy, 2005; S. Hysong et al., 2006; S. J. Hysong et al., 2012).

Herzberg (2003) also notes that highly motivated employees have high job satisfaction, which is considered a growth or a motivator factor. Highly motivated employees also have low job dissatisfaction, otherwise known as dissatisfaction-avoidance or hygiene factors. Dissatisfaction avoidance and satisfaction seeking are not the opposites of each other. These are two separate needs of humans. Hygiene factors are
associated with low levels of dissatisfaction with the following factors: company policy, supervision, relationship with supervisor, work conditions, salary, relationships with peers and subordinates, status and security (Herzberg, 2003). Motivators are related to having high satisfaction related with the following factors: achievement, recognition, work itself, responsibility, advancement, and growth (Herzberg, 2003). As long as motivators are high and hygiene factors are low there is a reasonable expectation to have a motivated employee. According to Herzberg, it is more economically feasible to increase the motivators rather than to decrease the hygienic factors (2003). A highly motivated individual is better able to take advantage of information sharing that is available when using A&F, and can then positively change behavior.

According to Esfahani et al. (2013), elements within four factors can alter organizational indifference: motivational, managerial, personal, and structural. Of the four, the most pervasive is the structural factor which is the factor that most affects midwives at the county hospital in this project. Structurally, employees at this facility face an extensive bureaucracy, lack of knowledge about performance results, and lack of coordination between individual and organizational goals. Resolving these specific issues in the structural factor could effectively decrease any existing organizational indifference found in this group. Application of this theory would indicate that showing the nurse midwives that their personal goals actually do correlate with the goals of the nurse midwifery group, as well as with the organizational goals should enhance their desire to make practice changes. Combined with increasing the information sharing about how well they are achieving the goals, these interventions could allow them to be more empowered and more interested in learning how to obtain the objective of improving
prenatal care delivery (Liggins-Fontenot, 2015). A set of complex interventions must be accomplished by the CNM group in order to attain the ultimate goal of increased deliveries and it works only when people are working to make changes together rather than as an individual process (Johnson & May, 2015).

Summary

Based on the information gathered from the review of the literature, there are several areas that need to be addressed in order to enhance patient satisfaction and loyalty. These include focusing on the clinic environment, wait time in the clinic, information sharing between patients and providers, and peer patient support. An additional aspect of focus is the level of advance communication given to patients regarding the laborist type of practice and how patients can expect to be managed in order to avoid disconfirmation of expectations. Effective communication that provides a good overview of the prenatal care, the labor process, as well as on the navigation of the health system, is crucial. Evidence also supports a focus on giving primiparous women extra support and guidance. The time needed for the interaction between patients and providers needs to be supported and protected by the facility in order for patients to have high levels of satisfaction with the quality of care. Facilities that are able to better the structural or process quality have an increase in efficiency levels as well as an increase in patient satisfaction and loyalty levels.

Changing provider behaviors and managing provider motivation to change is another important aspect of providing care that produces patient satisfaction and loyalty. In order to bring change, providers must be engaged with the problem and be motivated to identify the issues for their patients as well as address the identified problems. By
aligning their own personal goals with those of the facility, working within a specific plan, and receiving feedback on the progress towards project goals, providers would be more likely to make the needed changes, while receiving an increased sense of achievement and recognition. This should increase their job satisfaction and engagement in the practice change. In order to provide accurate feedback, the feedback must be timely, individualized, non-punitive and customizable. Preferably, the feedback needs to be both written and verbal, and given regularly by the supervisor.
METHODS

This ongoing quality improvement project with an aim at increasing the delivery rate of CNM patients was conducted in a large metropolitan hospital in Southern California using the PDSA model of quality improvement.

Procedures

A task force of involved stakeholders began meeting in August 2015 to address the areas that need better information giving for the patient. This task force consists of two nurse midwives (Liggins-Fontenot as Project Lead), two RNs who work in the antenatal clinics, one RN who works in L&D, one clinic administrator, the two nurse managers (clinic and L&D). The core task force members are the two CNMs and the two clinic RNs; the rest were invited to meetings as the area that they were involved in was identified during the change process. The initial meeting with the administrator identified stakeholders who need to be involved. A meeting of four of six clinic CNMs in September 2015 led to enhanced CNM awareness of the problem of poor patient retention (for deliveries and postpartum follow up) and allowed CNM brainstorming of initial strategies to attain the project goals. In September, a meeting was held between the Project Lead (Liggins-Fontenot) and the lead clinic RN to identify needs in the clinic.

Based upon consensus of task group participants, several barriers were identified. Potential areas for improved processes related to antepartum clinic visits were the following:

- Incomplete information sharing during prenatal visits
- Variable use of ultrasound provision and subsequent provision of photographs for mothers
• Variable use of maternal tours of labor and delivery area
• Lack of checking with patient as to understanding of the laborist model of care
• No patient pre-registration for labor
• No pre-scheduling of appointments for postpartum visits, miscellaneous agency-specific barriers identified by the task force.
• No pre-determined follow up on missed appointments for new, return and postpartum patients.

Assessment of Barriers

The task force was charged with the assessment of barriers in the clinic and hospital – for each of the bullets above that describes a potential problem area, barriers will be continually determined and addressed. This will be done to maximize the chance that implementation of any planned practice changes or process changes will occur (Graham et al., 2006).

Implement Interventions

Based on the information gathered from the literature review and feedback from the stakeholder task force, initial interventions were developed and introduced during fall 2015. In this ongoing project, as new barriers are identified, specific interventions to overcome them will be determined and implementation strategies developed. Changes made will be communicated to the key stakeholders. This performance improvement process is ongoing.
Evaluation

Evaluation of the interventions is being done with documentation of meeting notes and notes by the Project Lead. These will be used as a monitoring tool to evaluate and track the changes being made as the project progresses. Also the use of A&F will be used to monitor group and individual goal attainment.

The specific outcome measures for the project are prenatal visit appointment rates (new and return), delivery rates and postpartum visit rates, which is data already being collected at the facility by the Nurse Midwifery Service, and reported to the Obstetrics/Gynecology department. Previously, postpartum visit rates were not reported, but due to new information about the importance of the postpartum retention, this data began to be tracked summer 2015. The rates of patient retention both in delivery and postpartum clinic visits comes from the numbers of patients from the CNM prenatal clinic who deliver and return for postpartum visits. Clinical measures that will be important to the project have begun to be monitored. These include missed appointment rates for new appointments to the prenatal clinic, missed appointment rates for follow up visits to the prenatal clinic, and missed appointment rates for postpartum visits.

Ethical Considerations

During this quality improvement project, ethical procedures are being used while implementing the interventions to increase patient retention and the delivery rate. The interventions used are part of an evidence based plan and part of routine prenatal care. Informed consent is not needed for several reasons. This study is using existing data and the reporting is not considered for generalizable knowledge. Informed consent is for
protection from research risks; however there is no known patient risk in this project. (Miller & Emanuel, 2008).
RESULTS

Nurse midwife efforts addressed both prenatal and postpartum care expectations in order to increase patient retention (through delivery and postpartum) and loyalty to the metropolitan county hospital. Initial goals were to increase patient retention rate to delivery to 90% in the CNM clinic within 6 months; and to decrease the missed appointment rate for prenatal and postpartum appointments to 5%-10% or less with the emphasis on new antenatal patients and postpartum patients.

In accordance with the PDSA model for quality improvement a Plan-Do-Study-Act pattern of action was followed. Following the delineation of barriers to patient satisfaction potentially stemming from incorrect patient expectations, actions by CNMs in the antepartum clinic were planned that would make a difference for individual patients; once planned, CNMs began changing their practices using specific strategies. Monthly, data related to process and clinical outcomes was shared with CNMs, and then, new strategies or revised strategies were developed based upon the data.

Implementation

The implementation of process changes is shown through the notes on the monthly actions that were taken from August through December 2015 (see Appendix A). These are delineated below on a month by month basis. During this time, focus was on managing patient expectations in order to keep patient satisfaction levels high. A series of process changes rather than a single intervention evolved. Unless otherwise specified, the actor in the statement is the Project Lead.
August, 2015

- Meeting with Administrator regarding quality improvement project. Executive Summary of this report was given and stakeholders were identified.
- Meeting with Clinic RN regarding getting more patients into the newly made slots for new prenatal patients. Key points:
  - Patients are first seen by the community workers (non-licensed personnel trained by the facility) in order to get preliminary history and initial prenatal blood tests before being seen by the provider.
  - The newly discovered facility loss when postpartum patients do not come back for their follow up appointments (new because this data was not collected until summer 2015).

September, 2015

- Problem identified with ordering prenatal tests for new patients, difficult for community workers to get the tests ordered and drawn. Met with Clinic RN to come up with ideas for resolution. Plan is for the CNMs to pre-order the tests for new patients the day before scheduled appointment to expedite the process.
  - Performed small PDSA on small group of patients to see if process would work.
  - Process was evaluated and found to work, so it was disseminated throughout the CNM clinic.
- Meeting with the L&D RN regarding scheduling obstetric patients prenatally in early gestational ages in order to have information sharing earlier in the
pregnancy; scheduling to be done at 16 weeks gestation rather than after 28 weeks.

- Initial CNM meeting to brainstorm ideas about what interventions the team should do to increase patient retention. Decisions were made regarding the following:
  - CNMs to contact all missed appointments including new, return and postpartum visits for rescheduling, and documentation of actions.
  - All patients will be scheduled for tour of the labor and delivery and Triage area (Hospital Tour) at 16 weeks gestation rather than in the third trimester.
  - Agreed to have the community workers to contact the new patients for a pre-visit to occur prior to that scheduled to the CNM clinic, allowing the history and initial prenatal blood tests to be done in advance.

October, 2015

- Meeting with Clinic RN about problems identified with pre-ordering routine prenatal tests for patients with a history of diabetes. A patient screening sheet was made by the Clinic RN for the community workers to use to avoid giving diabetic patients the glucola drink which is part of the routine prenatal blood tests.

- CNM Meeting with action plan: community workers to contact new patients, pre-ordering labs to include pregnancy test and ultrasound, CNM in clinic to order tests for the following day. Still need to determine how to track OB tour and scheduling for postpartum appointment at 35 week visit.
• Meeting with Community workers and Clinic RN: problems with scheduling the new patients, process reviewed; at meeting end, community workers state they understand importance of revised process.

• Chart Audit on 32 medical records of patients seen antenatally by CNMs from 10/19-10/28/15. These audits were conducted by pulling the lists of patients scheduled to be seen each week and finding patients that missed their appointments. Tracking the patients that missed their appointments was done using the Chart Audit Tool found in Appendix B. Each patient with a missing appointment was examined to verify documentation of follow-up. It was found that many new patients were still being incorrectly scheduled from Triage, from the gynecology clinic, and from the Emergency Room. There were 9 new missed appointments with 3 patients rescheduled/note written; 1 patient was rescheduled/ but no note; 5 patients had no appointment rescheduled/no note written.

November, 2015

• Meeting with Clinic Charge Nurse, Clinic Licensed Vocational Nurses (LVNs), and CNM regarding problems with pre-ordering tests. Process was clarified. By the end of the month, this problem resolved.

• Meeting with Community workers: having difficulty getting pre-ordered tests drawn in clinic by the LVNs. Developed plan to make this an easier process in the clinic.
• Meeting with RN in Family Planning Department: She will be able to get the postpartum appointment for patients scheduled with Family Planning at 35 weeks to expedite the process of scheduling.

December, 2015

• CNM meeting: Developed a plan to document patient education in the Electronic Health Record (EHR) under labs so that the plan can be followed and audited. Talked about the feasibility of giving multiple appointments to decrease wait time (plan is to do small PDSA first). Talked about developing an Orientation Form to give to new patients to give them an overview of prenatal process at the county facility.

• CNM Meeting: discussed documentation of patient education. Plan is to make a universal documentation location for CNMs to use for uniformity and ease of auditing. Reviewed postpartum follow up data, and reviewed chart recent chart audit that showed that missed postpartum visits had no follow up documented in the chart. Project Lead clarified policy.

Process Outcomes

Process outcomes are shown by examining how often the providers actually performed the interventions needed to obtain the clinical outcomes needed. Some of the process outcomes included:

• Initial obstetric information sharing by CNM with patient

• Laborist Model information sharing by CNM with patient

• Missed Appointment follow up by CNM
• Scheduling the Hospital Tour by CNM; documentation that the Tour was taken
• Postpartum appointment scheduling by CNM

These process measures were difficult to accurately measure because of the many changes in the EHR made during fall 2015. Despite this, anecdotal evidence indicated that CNMs were completing several of these interventions during the months of November and October. Three chart audits were attempted during this time period, however because there was no uniform place for CNMs to document specific actions, there was no way to accurately track the compliance to the intervention.

Table 1

*Summary of working group improvement efforts*

<table>
<thead>
<tr>
<th>Date</th>
<th>Intervention</th>
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| August 2015  | • Stakeholders identified  
              • Meeting with Clinic RN to start new patients to be seen by community workers first |
| September 2015 | • Began resolving problem with lab draw issue  
                     • Changed timing of Hospital Tour from 3\textsuperscript{rd} trimester to 2\textsuperscript{nd} trimester  
                     • Initial CNM meeting to brainstorm ideas for making changes  
                     • Started having community workers to contact new patients |
| October 2015 | • Continued to work on pre-ordering lab work  
                     • Follow up with community workers to find new patients not seen by them yet  
                     • CNM meeting, began determining how to track process goals in new EHR |
| November 2015 | • Continue to resolve pre-ordering lab process  
                        • Finding ways to start Postpartum appointment pre-scheduling |
| December 2015 | • Developed possible way to document patient education  
                                • CNM meeting to review documentation process, reviewed postpartum pre-scheduling |
Clinical Outcomes

Clinical outcomes (project goals) that were tracked included the following:

- New prenatal patient missed appointments for CNM clinic - shows how well the system is obtaining new patients and how well they are retained.

- Return missed appointments by patients for CNM clinic – this rate shows probable patient intent to return, and also is indicative of probable intent to deliver at the facility. (see Figure 3)

- Delivery rates for patients seen antenatally in CNM clinic – this rate shows how well the prenatal system worked to provide needed patient information and maintain patient loyalty and satisfaction.

- Postpartum missed appointments for patients seen in CNM clinic – this rate shows how well the patient has been educated about the necessity of returning for the postpartum visit.

All of these rates are indicators of how well the patients are being processed through the system and shows how accurately the prenatal care system is functioning.
Missed appointments are those where a patient schedules an appointment but does not come to clinic. New appointments are patients never seen at the county facility. Returning appointments are those for patients who have been to the CNM clinic at least once.

The defining characteristic of a quality improvement process is to demonstrate if the quality improvement strategy, which for this project is multi-faceted, created a measureable change in the process or outcome measures (Ogrinc et al., 2008). Run charts are commonly used in quality improvement projects and give a display over time of the effect of the changes (Perla, Provost, & Murray, 2011). Figure 4 shows that based on the probability-based rules that there is evidence of non-random pattern in the data. The goal for the return missed appointments was 5% or less; we had a mean of 9.8% for the first part of 2015 and a downward shift to 7% in October and 5% in November. In the run chart, there were 6 or more consecutive points below the median, which shows a non-random trend down (Perla et al., 2011).
Figure 4. Run chart for Return missed appointment rates from September 2014 through December 2015.

For the new missed appointments the goal was to have it decrease from a mean of 34% in the first part of 2015 to 10% or less. (See Figure 5) While it decreased in October (15%) and November (21%), there was no non-random pattern found in the chart for the new appointments, so no significant change was noted. This is probably due to the fact that getting the new missed appointment rate is a multidisciplinary issue that needs further work.
Figure 5. Run chart for New missed appointment rates from September 2014 through December 2015.

For percentage of CNM clinic patients who delivered in the county facility, the goal was 90% or greater; the mean was 78% for the first part of 2015 and for October/November, it was 81% and 87% (see Figure 6).

Another indicator was to have been a decrease of the postpartum missed appointments from a mean of approximately 20% with a goal of 10%. This data has only been tracked for a few months, since July 2015. The data that was gathered showed an average of 27% for missed postpartum appointments. There is an average of 4.8% of patients that are not being scheduled at all and an average of 3.4% that are only being seen at their post-operative appointment only. This data will continue to be monitored so that the program will be able to better track any significant changes.
Figure 6. Delivery rates are calculated as number of patients seen in the CNM antepartum clinic who deliver at the county facility over the number of patients seen in that antepartum clinic with an Estimated Date of Delivery during the month.
CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The initial goal of this quality improvement project was to increase the delivery rates and postpartum visits of patients who have been seen in our prenatal clinic by addressing and increasing patient satisfaction and by increasing information sharing, and by meeting patient expectations which, according to Bendall and Powers (1995), creates patient loyalty. There is evidence that this county facility is moving toward the goal, although the goals were not met yet. This project is still in progress. There is a revised picture of the supporting framework showing the addition of patient processing and planned interventions (e.g., PDSA process; See Figure 7).

The changes implemented by the team were monitored to determine whether these efforts increased retention rates of the new, the returning, as well as the postpartum patients in the facility. Several interventions were initially selected after a brainstorming session with the nurse midwives; these were prioritized and implemented. As the project went forward, there were several other issues that needed to be addressed before the selected interventions could be implemented fully. Unfortunately, due to documentation norms at the facility, these interventions have not been monitored. As of February 2016, the CNM team continues to address these issues (e.g., documentation in the EHR) in order to have complete implementation of process changes.

**Interventions Implemented**

Many interventions proposed in the initial brainstorming session have been implemented by the CNMs, however some planned interventions have been changed based upon reflection upon feasibility and context, and the actual percentages of times each intervention was completed has not been tracked yet. For example, the tour of the L&D area was initially geared to pregnant patients in the third trimester; now, this tour is being scheduled for antenatal patients who are around 16 weeks gestation so that patients
can have better information sharing and know what to expect earlier in pregnancy. The CNM team was able to initiate the pre-screening/prenatal blood testing for many of our patients by the community workers during a pre-visit; this change led to the inclusion of adding pregnancy tests and initial ultrasounds to the routine orders. The process of scheduling all new patients with the community workers prior to a CNM visit is still incomplete; ways to facilitate this are being identified.

Other interventions have been initiated however universal adoption is not complete. Monitoring of processes has begun in order to provide aggregate data as well as individualized feedback (A&F). This is a challenge because the facility is in the midst of changing documentation processes with a new EHR system (started May 2015); once documentation processes have been established, tracking should be easier. For example, there is currently no place to document the following planned activities: scheduling the OB Tour, scheduling the postpartum visit, documenting information giving regarding the laborist model of care. According to Matejic et al. (2014), these interventions are a part of information sharing and should enable enhanced perceptions of provider support and effective provider-patient communication.

**Provider Motivation**

At the beginning of this doctoral project, provider motivation for change was not a consideration by the Project Lead. However, it soon became apparent that provider motivation is a crucial concept that can positively or negatively affect making provider behavior changes for a quality improvement project. Throughout the remainder of this project, the provider (CNM) motivation and satisfaction should be adequately addressed. As Herzberg (2003) notes, having many factors that are satisfying and having few factors
that cause dissatisfaction can enhance provider satisfaction. Once an intervention is implemented, there needs to be consistent follow up with providers on how implementation is affecting them. Without proper follow up for each intervention, the intervention can stall. This is why A&F interventions are being added as soon as EHR documentation allows. According to Hysong et al., “feedback is an important moderator of individual motivation” (2012, p. 2).

**Monitoring Knowledge Use**

To determine whether knowledge has been assimilated and staff/provider behaviors are changing, three types of knowledge use (Graham et al., 2006) are considered. Conceptual use of knowledge can be measured by noting a change in understanding or in an attitudinal change. This aspect was addressed at the CNM monthly meetings, and even as late as December, some of the team members voiced difficulty understanding why these behavior changes needed to be done. A specific and consistent recognition of how the CNM actions affect the hospital revenue and how this is connected with their own goals personally and as a group should be addressed. According to Esfahani (2013, p. 76) “lack of coordination between organizational and individual goals are the most important factors among other components that affect organizational indifference.” The Project Lead plans to meet with administration during spring 2016 to discuss the alignment of goals between the CNM group and the facility.

Instrumental use of knowledge is shown in actual behavior changes. This can be measured by using a chart audit tool. The A&F tools (e.g., run charts) were used to provide aggregate information about clinical outcomes. However, this information is more meaningful when given individually and more frequently (S. Hysong et al., 2006).
When available, the feedback on provider processes (e.g., information sharing) may need to be offered more regularly to increase effectiveness.

Strategic use of knowledge, which relates to the use of new knowledge to attain specific power or profit goals, can be measured by monitoring rates of patient retention both in delivery and in postpartum clinic visits, and by measuring changes in numbers of patients who deliver at our hospital from our own prenatal clinic. Information about the CNM clinic outcomes (e.g., missed appointment rates, delivery rates) should be shared with CNMs monthly. This information can then be translated to the amount of additional revenue per delivery that is being generated so that the return on investment can be calculated. This information would verify whether the cost of implementing new interventions was valuable (Graham et al., 2006), and would be helpful to have to move forward with this process.

**Sustaining the Use of Knowledge**

Sustaining the knowledge in order to maintain the changes that were implemented is just as valuable as initiating them in the first place. There will be different barriers to maintaining the changes than there were to initiate the changes (Graham et al., 2006). Once these are identified, these barriers also need to be addressed by the stakeholder task force, and then specific interventions need to be applied, monitoring plans set into place, and the information needs to be constantly assessed and reviewed as a group in order to maintain and continue to make additional changes as issues are identified. For example, changing the way that blood tests were ordered took several attempts due to several layers of problems that were unforeseen when this intervention was initially proposed. These include patient barriers (e.g., diabetic patients require different tests), clerical
Barriers (e.g., correctly scheduling patients to the community worker pre-visits before scheduling to CNM clinic), clinic staff nursing barriers (e.g., being able to access the orders, having the time to draw the blood, and CNM provider barriers (e.g., knowing when and how to order correctly in new EHR system, and changing behaviors to order before every clinic day). All had to be addressed and still require follow up with chart audits to ensure that the changes continue.

What was Learned?

Several key learnings ensued from a thorough reflection upon the processes undertaken, discussions that have taken part, and data evaluated. Some of these were related to myths at the facility about care delivery and organizational processes.

- At the outset of the project, the “common knowledge” was that county patients do not deliver at the county facility. Estimates discussed were that up to 40% of patients left to deliver elsewhere. In reality, in 2015, an average of 81% of patients who start prenatal care at the CNM clinic delivered at the hospital; furthermore, increases in the last months of 2015 occurred.

- Data is not currently available on the delivery rate for the High Risk (HR) clinic (staffed by medical residents), but of the patients who do deliver at the hospital, an average of 37% come from the CNM clinic, with 29% from the HR clinic.

- Initially, returning patients were considered “the problem” with the need to focus on retaining them as customers. It is now apparent the returning patients (seen in the CNM clinic) are staying with the hospital through delivery. For
clinic, they had a 10% missed appointment for the last few years, and in the last few months that has dropped to almost 5%.

- Initially, it was thought that it did not matter what happened to patients that were scheduled as new patients and did not show up, that there was no need to follow up on them because they probably were not going to deliver with us any way. When the data was examined, it can be seen that 25-30% of the patients who deliver with us are patients from either outside clinics, other countries, or who have not had any prenatal care at all. Many of these patients are coming through the Emergency Room or through Triage. This brings up two issues that should be addressed as the project moves forward:
  
  o One issue is that many of these patients may have been seen in early pregnancy and because they end up staying long hours in the ER, they disliked their reception at the county facility and may not come back for prenatal care or those who do get the care they are expecting may be scheduled incorrectly, and are not accessing the system in an optimal manner. This will be determined in order to plan interventions as the process progresses.
  
  o The other issue is that those who are scheduled may not have any idea where the prenatal clinic is or how to maneuver the system; they may also be lost in financial screening.

- Averages of 45 new patients are scheduled per month (CNM Clinic); the new patient missed appointment rates average 34%. This equates to 183 lost new patients a year. If the missed new appointment rate could be brought down to
10%, that would mean approximately 486 new patients would come through the CNM clinics in a year. If 80% of them delivered at the facility that would be over 100 more deliveries per year (see Figure 8.) If new patients seen per month increased along with the missed appointment rate decreased, this could potentially make a huge impact. In the last few months of 2015, the missed new appointment rate decreased to 15-20%. To continue decreasing missed appointments, a focused effort needs to be made in order to increase the numbers of patients in the CNM clinic as well as delivery rates.

Table 2

*Estimations of New Patient retention*

<table>
<thead>
<tr>
<th>Average # new patients scheduled (monthly)</th>
<th>Average missed appointment rate</th>
<th>Patients lost</th>
<th>Patients kept</th>
<th>Projected 80% delivery rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>45</td>
<td>34% now</td>
<td>15.3 per month/183 per year</td>
<td>29 per month/356 per year</td>
<td>284.8 deliveries/year</td>
</tr>
<tr>
<td>45</td>
<td>10% goal</td>
<td>4.5 per month/54 per year</td>
<td>40.5 per month/486 per year</td>
<td>388.8 deliveries/year</td>
</tr>
</tbody>
</table>

- Previously, little attention was paid to rates of return of postpartum patients. The CNMs and medical providers were unaware that this was both a fiscal problem and a health care issue. They did not systematically encourage patients to return for postpartum appointments and at times, providers actually discouraged them by sending them to a different clinic (e.g., Family Planning) to see new providers after delivery, or told the patients that the postpartum
appointment was not necessary. Ways to increase the likelihood that mothers will come to postpartum appointments would be to:

- Pre-schedule appointments for prenatal patients, share information about the importance of keeping their appointments, review benefits and possible risks of not having the postpartum appointment, and schedule them with a familiar provider. This last suggestion should enhance satisfaction because mothers will be excited to come and show their new babies and talk about their experiences.

- A current practice of the one of the staff CNMs is to make visits to the postpartum unit, where she looks for patients that she knows and visits them. They are always surprised and pleased to see her. While there, she encourages breastfeeding and returning for a postpartum visit. This practice will be discussed with other CNMs to determine whether it would be a potential suggested standard practice. Once individual process indicators can be tracked, the impact of this practice on postpartum visit rates could be detected.

- An additional desired change will be to make sure that all prenatal patients with a prior Long Acting Reversible Contraception (LARC) are scheduled to return to the CNM clinic after delivery with appointments that are done in advance (at the 35 week appointment).

Many things were learned about the quality improvement process through this doctoral project. These include the following:
Making changes in a large facility is a very slow and arduous task.

It is vital that you have a team that is invested both in the process and in the facility goals.

Clear communication about the necessity behind the change is needed as well as the scientific rationale as to why this particular change is important.

One small change can cause unforeseen ripples and therefore, using the PDSA process allows time for studying each one.

Continual monitoring is needed of process and clinical outcomes, with follow up and keeping track of the data. Presenting data to providers (both individually and in aggregate) is vital to the change process.

It is important to test assumptions first with data, because they may be incorrect!

**Recommendations**

While conducting a quality improvement process, the identification of the issue is the first step. Identifying the interventions is next. By using a modified Bendall and Powers (1995) framework, interventions were identified that should make a positive effect on patient satisfaction, and in turn, impact patient behaviors. Because of the organizational push for change and the time constraints of this doctoral project, several interventions began simultaneously which made it difficult to perform the complete PDSA for each intervention. With too many interventions at the same time, it was also difficult to make all of them a part of normal processes of care in the CNM clinic. The process might have been more effective if each intervention was done separately with the full PDSA process.
Progress made in this project included increasing the communication between staff in the different departments. There was also the actual gain of decreasing the missed appointment rate as well as the increase in rates of deliveries in patients from the CNM clinic. In order to maintain this progress and continue with further gains, reflections on what can be done to maintain the changes is a crucial part of a quality improvement program (Ogrinc et al., 2008). Some of the interventions that need to happen have been reviewed previously. But a consistent and clear presentation of data (key process and clinical outcomes) to all who are involved in the change process is necessary in order to include everyone in the updates of progress being made as well as steps needed to continue to progress.

In addition, this project could be improved is by applying the Model of Understanding Success in Quality (MUSIQ) which is used at the beginning of a quality improvement project in order to evaluate the contextual factors as they relate to the quality improvement project (Kaplan, Provost, Froehle, & Margolis, 2012). This would allow identification of any setting weaknesses that may affect the project. Contextual factors include things like external environments, external motivators, organizational leadership, data infrastructure, workforce focus on QI, microsystem QI leadership, motivation to change, team diversity, as well as strategic importance to the organization (Kaplan et al., 2012). Once these areas are examined, weaknesses could be addressed to increase the likelihood of successfully making a significant change. This is especially important in large facilities with a need for multi-disciplinary changes; “it can provide a comprehensive approach regarding what can be done to modify these aspects of context by intervening across multiple levels of the system” (Kaplan et al., 2012, p. 19). The
information can then be used to evaluate which key aspects can help or hinder the process by completing a PDSA cycle on those issues first (Kaplan et al., 2012).

The Project Lead’s participation in the Institute for Healthcare Improvement (IHI) collaboration (begins February 2016) will help the CNM team and hospital staff to focus on the MUSIQ evaluation, the practice of doing interventions singly, including documentation of processes, which will allow a more effective audit and feedback process.

**Future Work**

The gains already made will be useful as the project continues. With the information gathered and the experience gained, the project may become even more successful. As Hayes, Batalden, and Goldmann (2015) say, the goal will be to “work smarter, not harder.” This is achieved by coming up with interventions that will not increase staff work load, but will make the work being done more efficient, which could ultimately result in a decrease workload for nurses and other providers. This is accomplished by “a greater partnership with and participation of the health care workforce, who will need to help prioritize, design, test and guide the adaptation and implementation of the new work” (Hayes et al., 2015, p. 2)

In the future, a single intervention that has been identified as the most likely and most important intervention will be addressed first to achieve the most important improvement. Initially, it was believed that the percentage of delivery rate of CNM clinic patients was the most important metric to change. But further analysis of process indicators led to the discovery that the majority of CNM patients already deliver at the facility (81% to 87% for September through November). However, it was noted that once
patients are seen in CNM clinic for prenatal care, they are likely to continue care there. However, “new” patients, or those who have never been to the CNM clinic but have made an appointment, have missed appointment rates from rates as low as 23% to as high as 47% in 2015. Thus, this metric of new missed appointment rate appears to be potentially the most important metric on which to focus. If strategies can be developed to decrease that rate, then more patients will become CNM patients, where there is now an 80% chance with a movement toward a 90% chance of delivering at our facility.

Increasing feed back to the CNMs and also including the clinic nursing staff and the community workers with dissemination of information on the project metrics may lead to additional effectiveness because their behavior changes are also needed to meet project goals. With the added feedback, the whole team can work toward the same goal.

At the facility, it would be helpful for community prenatal clinics to partner with the CNM prenatal clinic as this might enable increased patient flow. Patients, including those from the community, could have their births attended with providers aware of a full medical history. A community awareness team to go out into the community to reach out to some of the smaller clinics in the area would be helpful.

Health literacy is an additional universal issue identified in working with prenatal and postpartum patients. There are various ways to present information in a way that it is more effectively received by patients. A future project may involve establishing evidence-based strategies for information sharing for our patients.

There were many systems issues that were uncovered during the brief time of this doctoral project. The system issues included the following: how to get patients scheduled to see the community workers before the first prenatal visit, how to deal with
different access points (patient called for an appointment, or if were scheduled through the Emergency Room or Triage), how to optimally schedule prenatal ultrasounds, difficulty with getting photos of the ultrasound for patients (receipt of this photo increases patient satisfaction). All of these issues are obviously beyond what the nurse midwifery service can accomplish alone. Collaborating with Hospital Administration will need to be ongoing to develop a successful multi-disciplinary, multi-departmental team.

The data gathering has led to the realization that in order to increase the delivery numbers we need to get more patients into the clinic, retain them, deliver them, and have them return to the postpartum appointment and even beyond. The postpartum retention rate continues to need more attention. The facility will soon be developing a women’s centered medical home for patients that will emphasize retaining patients even beyond their perinatal experience. This new development makes it even more crucial to meet the expectations of patients, provide excellent care while maintaining patient satisfaction, and create patient loyalty from prenatal care to beyond.
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APPENDIX A

LETTER FOR PERMISSION FOR USE OF DATA

DATE: 2/19/16

TO: Kimberly Liggins Fontenot

FROM: Angela Baca, Hospital Administration

RE: Clinical Data

This memo confirms that you have my permission to use clinical data for your project. It is understood that the data is only aggregate data of numbers of patients seen at our facility. There is no patient related information in this data, and as such, there should be no patient identifying info within this project. In addition, it is understood that this facility will remain an anonymous institution for your project.
APPENDIX B

CHART AUDIT TOOL

Clinic Day/Date:

Documentation of follow up
Community Worker appts:
New missed appt:
Return missed appt:
Postpartum missed appt:

Clinic Day/Date:

Documentation of follow up
Community Worker appts:
New missed appt:
Return missed appt:
Postpartum missed appt:

Clinic Day/Date:

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Community Worker appts:
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Return missed appt:
Postpartum missed appt:

Clinic Day/Date:

Documentation of follow up
Community Worker appts:
New missed appt:
Return missed appt:
Postpartum missed appt:

Start here.
## APPENDIX C

### TABLE OF EVIDENCE

<table>
<thead>
<tr>
<th>Purpose, Source</th>
<th>Study Design &amp; Key Variables</th>
<th>Sample &amp; Setting</th>
<th>Measures</th>
<th>Results</th>
<th>Authors’ Conclusions; Limitations; Notes</th>
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<tbody>
<tr>
<td>To evaluate and develop a tool for evaluating patient-centered cultural sensitivity in health care.</td>
<td>Descriptive Correlational Study</td>
<td>Convenience sample Completed surveys Study #1 221 Low income patients who utilize community-based primary care centers in Florida. (82 Af-Am, 45 Hispanic, 94 non-Hispanic white)</td>
<td>HIRS- three race-specific versions. Likert scale 125-203 questions depending on race. Means and standard deviations calculated for each question. Questions based on behavior/attitudes that exhibit 1) Provider trust, 2) Provider Comfort, 3) Provider Respect, 4) Center Office Staff, 5) center policies and physical characteristics</td>
<td>The mean ratings for all the HIRS components were higher for all the non-white participants. For all three groups the mean ratings for Provider trust, comfort and respect were higher than any of the other components. The results of these findings led to the development of the pilot inventory to evaluate patient-centered culturally sensitive care which was the second part of the study.</td>
<td>The findings suggest a consensus in low income patients in cultural sensitivity and the tool may be useful in other circumstances. There were some limitations: small sample size, small percent of males, and all low income patients, which all limit generalizability.</td>
</tr>
<tr>
<td>Study #2 To construct pilot inventory to assess patient-centered culturally sensitive care and to determine the psychometric properties of the forms (Tucker et al., 2007)</td>
<td>Pearson correlation analyses was not c/w which indicated truthfulness in responses.</td>
<td>Mean ratings for all the HIRS components were higher for all the non-white participants. For all three groups the mean ratings for Provider trust, comfort and respect were higher than any of the other components. The results of these findings led to the development of the pilot inventory to evaluate patient-centered culturally sensitive care which was the second part of the study.</td>
<td>Study #2 Both forms of the pilot questionnaire showed that they were adequate to very good test-re-test reliability, split half reliability, and internal consistency. This shows that more</td>
<td>Study #2 The goal was to decrease disparity between the races, and performing a patient centered culturally sensitive care is crucial to obtain that goal. There is a need for</td>
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<td>Purpose, Source</td>
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<td>To develop a multidimensional questionnaire to assess quality of prenatal care called the Women’s Views of Birth Labor Satisfaction Questionnaire (WOMBLSQ) (Smith, 1999)</td>
<td>Descriptive Exploratory Key Variables Satisfaction</td>
<td>328 from 500 surveys sent out (65% RR) in southwest region in UK with several versions tested and the last version testing for 11 dimensions of satisfaction as well as demographic and pregnancy details. 30 questions in total.</td>
<td>The 7-point Likert scale testing suggested significant interrelationships b/t individual dimensions of satisfaction. Cronbach’s alpha was used to determine internal reliability. Pearson’s correlation coefficients were used to differentiate general satisfaction vs. specific dimensions of satisfaction.</td>
<td>Primiparous women were more satisfied than multiparous women with the time that they waited to be seen, peer support and with antenatal classes. Younger women appeared more satisfied with peer support, checking the heartbeat. Higher social class was significantly associated with more satisfaction with peer support, information received and checking the baby’s heartbeat. While lower social classes were more satisfied with ease of traveling to clinic.</td>
<td>The WOMB antenatal satisfaction questionnaire was the first tool developed to be used for antenatal care. It may be used as a screening instrument to determine what is causing the women concern with their antenatal care with good internal face and content validity. It also has the ability to identify differing needs between multips and primips, high and low education levels as well as different social classes. Some limitations include: may have limited generalizability for non-Caucasian populations. And there was an over representation of lower class and older women.</td>
</tr>
<tr>
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<td>To adapt and validate the Patient Expectations and Satisfaction with Prenatal Care instrument (PESPC) to be used in Brazilian population. (Prudencio, Mamede, Dantas, de Souza, &amp; Mamede, 2013)</td>
<td>Descriptive Correlational</td>
<td>Convenience sample 119 pregnant women cared for in one of three public health facilities in Ribeirao Preto, Brazil. 26 patients answered the questionnaire twice for retest.</td>
<td>41-item Likert scale ranging from 1 to 6 divided into a domain for expectations and one for satisfaction. Expectation Domain included: Complete Care, Provider Continuity, Personalized Care, and Other Services. The Satisfaction domain included: Information, Provider Care, Staff Interest, and System Characteristics.</td>
<td>26 of 119 were randomly selected to participate in the test-retest to show stability for expectation, and satisfaction. The study found several correlations to be statistically significant. In the expectations for prenatal care there was an association with number of children ($p &lt; 0.001$), occupation ($p = 0.0042$) and with education ($p = 0.052$). For the satisfaction domain statistically significance was found with gestation period ($p = 0.034$), and marital status ($p = 0.043$).</td>
<td>The authors were able to develop an adapted version of PESPC for the Brazilian population. This type of assessment supports the identification of areas for improvement and to determine areas that can potentially generate dissatisfaction. It also shows that this instrument can be adapted to be used in other populations as needed.</td>
</tr>
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</table>

Other Satisfaction Dimensions:
- Antenatal classes, social support from other pregnant women, and checking for baby’s heartbeat.
- Ease of traveling to clinic, and checking the baby’s heartbeat. But more satisfied with knowing the carer. Those with less education were less satisfied with ease of traveling to clinic.
<table>
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<tr>
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<td>Aim: To compare client satisfaction with prenatal care, continuity of care and pregnancy outcomes of low-income women who were served in two types of clinics. (Lowry, Saeger, &amp; Barnett, 1997)</td>
<td>Descriptive Exploratory Convenience selection Donabedian’s trilogy of quality of care-structure, process, and outcomes contributed theoretical support (embedded in Neuman systems Model emphasizing intervention before stressors invade).</td>
<td>124 selection. Two different clinics in adjacent similarly racially mixed, low socioeconomic neighborhoods in Florida were used. One was a public health clinic (PHC) the other was a multidisciplinary clinic (MDC). First 62 prenatal patients that met inclusion criteria selected from clinics.</td>
<td>The Risser Patient Satisfaction Scale (RPSS) was used. This is a 25 item Likert scale from 1 to 5. This was subdivided into three subscales using Cronbach’s alpha for content validity: technical-professional (0.64), teaching (0.83), and interpersonal (0.82). A subscale was added to the RPSS related to setting which was pilot tested with a sample of 30 clients. It was found to have good test-re-test reliability and was compared using Pearson’s correlation coefficient of 0.86. There was also eleven questions related to demographic info, as well as questions related to clinic distance, transportation mode/cost and two open ended questions asking what the client liked best and liked least about the clinic.</td>
<td>Frequencies were calculated to external barriers to care: distance to the clinics, modes of transportation, etc. For the PHC 40% lived within 4 miles of the clinic, at MDC 50% lived over 10 miles away, and 50% at both clinics owned cars. Independent sample t tests of means calculated for the three process variables: technical skill, teaching, and interpersonal relationships and setting showed statistically significant difference between the two clinics.</td>
<td>Clients from the MDC were significantly more satisfied when compared to clients from PHC. This was seen as due to having an RN case manager for clarification on orders, f/u appointments, and referrals. Clients also appreciated availability of child care, transportation services and having all care in one location. Satisfaction literature indicates that providers that give more personalized care are associated with higher client satisfaction and for continuity with care. Health status measures are indicators of quality of care but interpersonal relations, technical skill, availability as well as physical settings also are important. Researchers of client satisfaction state that the higher satisfaction with structure and process variables the more likely clients will comply with treatment and continue in care. Limitations include timing and reliability and of client reported information.</td>
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<td>This study was conducted to determine patient satisfaction with intrapartum care provided by a call group with low likelihood of being delivered by their primary physician. <em>(Shapiro, 1999)</em></td>
<td>Pilot Study Sample Convenience retrospective</td>
<td>4 Family Practice groups comprising of 23 physicians in Bramptom, Ontario. Any mother bringing an infant in 8 mos. or less was given a survey by the receptionist.</td>
<td>47 surveys were returned (70% RR)</td>
<td>The questionnaire was developed by the author and revised by 3 family physicians and was divided into two parts. The first part provided demographic information and information regarding last delivery. Including 2 Likert scale questions regarding satisfaction with prenatal care and the delivery. The second part dealt with previous deliveries by their own doctors and their satisfaction level for that experience. Data was cross tabulated to explore the relationship between doctor at time of delivery, maternal age, parity, perinatal</td>
<td>Close to 96% of the women did not have their own physician, and 88.9% of them were found to be satisfied with the care. 96% said that they were satisfied with the prenatal care. 78% stated they would choose this type of call group again. Maternal age, parity or interventions in labor were not found to have significance for satisfaction.</td>
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<td><strong>Purpose</strong>, <strong>Source</strong></td>
<td><strong>4166 (54% RR)</strong> Postpartum patients on the ward were given anonymous surveys before discharge from Pennsylvania Hospital, a university owned teaching hospital. (Srinivas et al., 2013)</td>
<td>Survival and satisfaction with previous care with own doctor and with current delivery. Univariate and bivariate analysis was done using odds ratio, risk ratio and Fisher exact 1 and 2 tailed tests with sig level ( P &lt; 0.1 ). The details were not disclosed.</td>
<td><strong>96%</strong> reported a high level of satisfaction with the overall labor experience. A subgroup of 687 patients were asked regarding their experience with the provider specifically they responded 75% excellent, 18% good/very good, and 3.4% answered neutral. 85% of this subgroup stated that they were aware that another provider would be delivering them. 97% of total participants stated they would have their next baby at this facility. Press-Ganey results were similarly favorable in the time period before and after implementation. (91.3 [811] vs. 93.4 [747], ( p = 0.08 )).</td>
<td>Many limitations, small convenience sample, which could contribute to positive bias. Questionnaire used could have been one previously published and examined for content validity and reliability. Also, since the survey was given in the clinic without anonymity, patients were reluctant to criticize their caretakers.</td>
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To assess patient satisfaction after implementation of a laborist model of care in a large urban teaching hospital. (Srinivas et al., 2013) | Exploratory | Survey questions regarding demographics, prior delivery at that hospital, and overall present experience. Likert 5-point scale survey questions were used to rate experiences. In order to do a comparison of satisfaction from before the change to the laborist model the Press-Ganey results were used with a \( t \)-test to compare overall results. | **96%** reported a high level of satisfaction with the overall labor experience. A subgroup of 687 patients were asked regarding their experience with the provider specifically they responded 75% excellent, 18% good/very good, and 3.4% answered neutral. 85% of this subgroup stated that they were aware that another provider would be delivering them. 97% of total participants stated they would have their next baby at this facility. Press-Ganey results were similarly favorable in the time period before and after implementation. (91.3 [811] vs. 93.4 [747], \( p = 0.08 \)). | Patient satisfaction was shown to not adversely be affected by the laborist model. Positive reactions to the change could be associated with patient expectations due to clear education and explanation of the model during the prenatal care period. Limitations include: sample size was adequate although, they all came from the same facility so there was no randomization, which may have caused bias since patients were still in the hospital when the survey was done. Also there was no information if a survey previously published was used or not. |

This study was useful since
The aim is to determine patient satisfaction comparing 3 models of low-risk obstetrics care: solo care (SC) by a GP, group care (GC) by GP, and specialist care (OB). (Kidd, Avery, Duggan, & McPhail, 2013)

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<tr>
<td>Three-arm descriptive exploratory</td>
<td>Randomized Sample 82 (37% RR) in Newfoundland, Canada. Moderate effect size of 0.25 for a power of 0.80 so target sample size was 159 with 53 respondents per arm</td>
<td>Patient Expectations and Satisfaction with prenatal care instrument (PESP) was used for this study which is a 5-item Likert scale survey which was published previously. Age, education, parity, and cesarean section rate were not statistically significant between the three groups by Pearson $X^2$. Cronbach’s alpha was 0.850 which met criterion for good internal consistency. ANOVA indicated at least 1 significant difference between the three groups ($F = 9.660, df = 2; P &lt; 0.001$) post hoc Tukey test indicated significant difference between the OB and the GC group ($P = 0.001$) and between the OB and SC groups, but not between the SC and GC groups ($P = .741$)</td>
<td>Patient satisfaction was similar between the two GP groups and found to both be higher than the OB specialist patients. But the reason for decreased satisfaction was not specified. It was found that the group GP was just as satisfactory as the individual practice, and has more provider satisfaction. Limitations include small sample size, difference in collecting survey information between the OB group which was immediately postpartum and the GP groups, which was much later. This study did not provide additional information but it did use the PESP which has been used by several other studies. It would be beneficial to get the original study that my facility uses the laborist model and gives some ideas on how to better care.</td>
</tr>
<tr>
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<td>To develop measure of maternal satisfaction with quality of labor care. (Smith, 2001)</td>
<td>Descriptive Correlational Quantitative</td>
<td>1420 out of 1683 (86.4%) in the last version. From the southwest region of the UK.</td>
<td>Multiple versions were tested using open ended questions and Likert questionnaire until the final version was developed. Then a seven point Likert scale was used. Women’s Views of Birth Labor Satisfaction Questionnaire (WOMBLSQ)</td>
</tr>
<tr>
<td>To synthesize info on differences in maternal and perinatal morbidity and mortality, effectiveness, psychological outcomes comparing midwife-led</td>
<td>Cochrane review</td>
<td>Randomized Multiple samples</td>
<td>Effectiveness – providing services based on sound scientific knowledge Woman-Centeredness- Providing care that is responsive to individual patients and that pt values guide all clinical decisions Efficiency- avoiding</td>
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<td>models of care with other models (Sandall, Devane, Soltani, Hatem, &amp; Gates, 2010)</td>
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<td>waste including equipment, ideas, and energy</td>
<td>hospitalization (5 trials, 4337) For the Woman-centeredness construct women randomized to midwife-led models were more likely to have high perceptions of control during labor (1 Trial, 247) For the Efficiency construct women randomized to midwife-led models were less likely to experience antenatal hospitalization (5 Trials, 4337) and infants have shorter mean length of stay in hospitals (2 Trials, 259)</td>
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</tbody>
</table>
# APPENDIX D

## ACTION JOURNAL

<table>
<thead>
<tr>
<th>Date</th>
<th>Purpose/Topic</th>
<th>People Involved</th>
<th>Action Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>9/2/15</td>
<td>Lab follow up</td>
<td>Beth RN</td>
<td>Will instruct LVNs to read charts, CNMs to plan labs in advance.</td>
</tr>
<tr>
<td>9/2/15</td>
<td>New Patients Lab orders</td>
<td>Cheryl RN</td>
<td>Kimberly CNM to attempt to pre-order labs for the New pts so that the labs can be drawn before CNM appt. Will meet next week to ensure plan worked before instituting clinic-wide.</td>
</tr>
<tr>
<td>9/2/15</td>
<td>OB Tour scheduling</td>
<td>Georgina RN</td>
<td>RN in charge of the hospital tour only wants people after 28 weeks to be scheduled. After explaining the rationale for having patients having an early tour so that they are more aware of their hospital and so they know where to go for any issues. It was agreed that the tour will be scheduled at 16 weeks instead.</td>
</tr>
<tr>
<td>9/8/15</td>
<td>Tracking patients for Return, New and Postpartum for CNM and HR clinics</td>
<td>Cindy CNM</td>
<td>Not previously tracking patients from all those parameters, will check into 2 months back to get a baseline.</td>
</tr>
<tr>
<td>9/17/15</td>
<td>CNM Meeting</td>
<td>Karen CNM, Michelle CNM, Laura CNM</td>
<td>Brainstorming meeting about patient retention. Ideas included: get normal patients from OBHR clinic, Call all BA pts especially new and postpartum patients which is at 40% BA rate; have the community workers call the patients that a new to have their intake and labs done before CNM meeting. Problems identified: need for accurate phone # for patients for f/u, pregnancy tests not being done on initial interview to verify pregnancy, need for pts to be aware of availability of child care.</td>
</tr>
<tr>
<td>10/16/15</td>
<td>CNM Meeting</td>
<td>Laura CNM, Karen CNM, Sandra CNM, Deirdre CNM</td>
<td>Reviewed plan for community workers to contact initial patients to get them pre-screened/labs done before CNM appointment; Plan for f/u for BA’s; Plan for pre-ordering labs for the patients being seen by the community workers including ICON, and ultrasound scheduling – the person in the clinic will order for the following day; System for tracking OB Tour- where to track?; Also reviewed</td>
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<tr>
<td>Date</td>
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<tr>
<td>10/22/15</td>
<td>New Patient Scheduling</td>
<td>Cheryl RN Tina Community Worker</td>
<td>PP pre-scheduling @ 35 weeks for 4-5 weeks after EDC. Patients were not being contacted by the Community Workers because they were unsure about how to go about actually getting an alternate appointment made. Reviewed with them the process.</td>
</tr>
<tr>
<td>10/30/15</td>
<td>Chart Audit</td>
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<td>For CNM charts from 10/19 – 10/28 Someone from GYN clinic is making appointments directly to CNM clinic and not to Community Workers for screening/labs; Patients seen in Triage are also not being scheduled correctly; New BA’s f/u: Tot 9 New pts BA’d, 3 pts rescheduled/note written, 1 rescheduled/no note, 5 no note/not rescheduled.</td>
</tr>
<tr>
<td>11/10/15</td>
<td>Pre-Ordering Labs</td>
<td>Michelle CNM Wanda RN Manager</td>
<td>Problem for nursing to access the pre-ordered labs in system, so Michelle CNM has stopped pre-ordering. Problem was identified and nursing and Michelle understands how to do it correctly now.</td>
</tr>
<tr>
<td>11/10/15</td>
<td>New Patient Lab Draw</td>
<td>Cheryl RN</td>
<td>Problem for Community Workers to get the LVNs to draw the blood, plan is for the patient to be put in the pile of patients for discharge and will notify the LVNs that the patient is waiting for blood draw only. Talked about PP f/u and Cheryl introduced me to Pam RN in Family Planning Clinic.</td>
</tr>
<tr>
<td>11/10/15</td>
<td>PP patient follow up</td>
<td>Pam RN</td>
<td>Pts are routinely contacted before the visit and after if they BA. Problem is having accurate phone #: possibly need to verify in third trimester. Some issues with having patient scheduled @ 4-5 weeks after EDC, may be too soon and may need another appointment to follow up. But better than having the patient not come at all or coming too late.</td>
</tr>
<tr>
<td>12/1/15</td>
<td>CNM Meeting</td>
<td>Karen CNM Sandra CNM Laura CNM Deirdre CNM</td>
<td>Decision was reached that the patient education will be charted under the labs in the patient chart so that the plan can be followed; Multiple appointments was brought up in order to expedite the pts discharge, plan reviewed; Gestational age associated with different interventions so that auditing can be done easier; develop Orientation Form to give to new patients with overview of prenatal care process.</td>
</tr>
<tr>
<td>12/7/15</td>
<td>Chart Audit</td>
<td></td>
<td>Chart review for BA f/u for new/returns/PP</td>
</tr>
<tr>
<td>Date</td>
<td>Purpose/Topic</td>
<td>People Involved</td>
<td>Action Plan</td>
</tr>
<tr>
<td>----------</td>
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<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>12/29/15</td>
<td>CNM Meeting</td>
<td>Karen CNM Sandra CNM Laura CNM</td>
<td>Problem with getting phone #’s for patients and no PP f/u happening yet. Some pts are getting Labs/Ultrasound appointments before their provider appointments but not all yet. Some providers are still not ordering correctly. Plan is to do audit to see who is having difficulties and resolve the problems. Some Community Workers are not checking the New pts on a weekly basis. Will follow up with Cheryl RN.</td>
</tr>
</tbody>
</table>