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Decreasing Primary-Care-Related Emergency Department Visits in the Hispanic Population Using Patient Navigators

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Abstract

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MSN, Walden University, 2012

ADN, College of the Desert, 2006

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Project Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Nursing Practice

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Abstract

Primary-care-related emergency department (PCR-ED) visits by Hispanic patients enrolled in a not-for-profit Medi-Cal and Medicare health plan resulted in longer wait times in the emergency department (ED) at a regional medical center in Southern California. This congestion decreased access for those with true emergencies, created capacity issues, increased ED length of stay, and resulted in potential safety risks. This project focused on decreasing PCR-ED visits in the Hispanic population using patient navigators in Southern California. Applying the health belief model and Lippitt's theory of change, this doctoral project involved the creation and implementation of a culturally appropriate, population-specific patient navigator model for the Hispanic population. Evaluation of outcomes was accomplished using electronic health record (EHR) results, which demonstrated a reduction of PCR-ED visits and revisits. The project exceeded the goal of 10% reduction in PCR-ED visits and revisits in the target population and resulted in a 14.31% reduction of PCR-ED visits and revisits within 1 month of implementation. Emergency Severity Index levels, wait time associated with each Emergency Severity Index level, and visits of the targeted Hispanic population enrolled in the health plan were analyzed to evaluate the success of the program. This project may lead to improvements in nursing practice and positive social change by supporting population health management and continuum of care to a primary care physician through safe and efficient patient navigation to treatment and care.

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Dedication

To my mom, Gloria Dominguez, RN, for being a leading example; my dad, Arthur Dominguez, Sr., for his ever-loving support; my partner, Gregory Hopkin, for keeping me grounded and supporting my dreams; and my family and friends, both personal and professional, who remained steadfast in their support and love.

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Thank you to my mentor, Dr. Kristin Schmidt, who always pushed and led with excellence and grace; Candice Carillo, hospital statistician, for ongoing support; Dr. Matheson, for her ongoing patience and clear direction; Kimberly Roquemore, Director of Lean Daily Management and Performance Improvement, for her expertise; and my dear friend and second mother, Vicki Dippner-Robertson, RN, who taught me what it means to be an educator, student, nurse, and lifelong-friend … May she rest in peace.

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Section 1: Nature of the Project

Following the implementation of the Affordable Care Act (ACA) and the

resultant expansion of Medicaid in 2010, health care reform law changed, which directly

increased emergency department (ED) visits as an additional 20 million Americans

gained health insurance (Boerner, 2016). Many of these patients had chronic health

conditions and no primary care physician. Such patients often sought medical care and

treatment at EDs rather than at primary care physicians' offices (Boerner, 2016).

Hospital system financial realities resulted in the preferential placement of

patients receiving elective surgeries to inpatient beds, which reduced inpatient bed

availability for ED admissions (Boerner, 2016). In addition, nursing shortages, loss of

inpatient beds to ED closures, and a steadily increasing volume of patients with ACA

coverage combined to create what an Institute of Medicine (IOM) report called

"*inevitable* ED overcrowding" (Boerner, 2016, p. 33). The problem with these changes

was that Americans now had to purchase health insurance unless their employers or some

other group plan covered them; a tax penalty was issued to those without insurance.

Although Medicaid expanded in only about half of the United States, the influx of those

with insurance coverage and patients seeking medical treatment resulted in increased

diagnosis detections and noted illnesses, which correlated with the increase of people

being seen by physicians (Whiteman, 2015). Although more people were insured overall,

this did not translate into access to health care that was affordable and cost-effective;

thus, some Americans still did not receive health care (Whiteman, 2015). In 2014, the

American College of Emergency Physicians (ACEP) reported that ED physicians noted

an increase in ED visits after the ACA was implemented, rather than the decrease that had been promised by the government.

An increase in the number of patients with health insurance resulted in a higher demand for doctors. However, there were not enough physicians to meet the demand. The Association of American Medical Colleges estimates that by 2025, the United States will need 46,000 to 90,000 more physicians to meet patient demand, not including specialists (Whiteman, 2015). Additionally, a survey performed by the ACEP found that once the ACA was passed in January 1, 2010, 46% of EDs experienced an influx of patients as primary care physicians limited or refused to see Medicaid patients due to the low levels of reimbursement provided by the ACA. Patients unable to access primary care began to use the ED as a means of attaining primary-care-related services (LoGuirato, 2014).

This change in health care utilization impacted EDs across the country. For instance, at a regional medical center in Southern California, patients visiting the ED faced increased wait times as the amount of primary-care-related emergency department (PCR-ED) visits and revisits resulted in overcrowding, which posed potential risks for patients with true emergencies due to ED congestion. A potential solution was the use of an ED patient navigator program to help patients manage the complex health care situations in which they found themselves.

Problem Statement

The ACA resulted in EDs frequently being used as sources of primary care rather than for true emergency care (Flores-Mateo, Violan-Fors, Carrillo-Santisteve, Peiró, & Argimon, 2012). As a result, PCR-ED visits accounted for approximately a quarter (21%-

28%) of all ED visits in the United States (Flores-Mateo et al., 2012). This resulted in longer wait times in the ED due to the congestion of lower acuity patients (Flores-Mateo et al., 2012). The influx of PCR-ED visits decreased access for those with true emergencies, created capacity issues, increased discharge length of stay, potentially decreased patient satisfaction, and increased the potential for safety risks (Enard & Ganelin, 2013).

From 2000 to 2014, the overall population in a valley in Southern California grew from 309,530 to 443,401. The population was 40.8% White, 51.4% Hispanic, 3.5% Asian, 2.5% African American, and 0.4% Native American (Coachella Valley Economic Partnership, 2014). Within the Hispanic population in this area, 58.7% were enrolled in a not-for-profit Medi-Cal and Medicare health plan. This group had a 50.1% recidivism rate for PCR-ED visits. This caused delays in treatment for those with true emergencies. It also created financial losses for the organization because the not-for-profit Medi-Cal and Medicare health plan hospital contracted reimbursement rates were so low.

The ED at a regional medical center in Southern California used a 1-5 Emergency Severity Index (ESI) triage system where 1 indicated resuscitation, 2 indicated emergent, 3 indicated urgent, 4 indicated less urgent, and 5 indicated nonurgent. Primary-care-related ED visits were classified as ESI 4s and 5s. The recidivism rate of PCR-ED visits from January 2014 through December 2016 accounted for 41% of the 221,288 patients seen. Of the 41% PCR-ED visits in the ED, 47% involved the Hispanic population. Therefore, this Doctor of Nursing Practice (DNP) project focused on decreasing PCR-ED

visits and revisits in a Hispanic population enrolled in a not-for-profit Medi-Cal and Medicare health plan through the use of patient navigators.

Together, the business plan and strategic plan focused on the *true north* of where the organization and project were headed and was supported and backed with a budget for project success (Ricciardi, Moy, & Wilson, 2016). A business plan was executed by determining resources needed for the program to be successful, such as personnel, operations, value, fit for the customer, business model, research, goals, and finances, with an ultimate outcome of a conceptual and tactical project that was feasible to attain (Papadopoulos, Britten, Hatcher, & Rainville, 2013). The focus of the ED patient navigator program at a regional medical center in Southern California was on Hispanics enrolled in a not-for profit Medi-Cal and Medicare health plan who were ESI Level 4 and 5 patients (see Figure 1), who accounted for 57% of all Hispanic ED visits. Table 1 displays growth and opportunity for navigating ESI Level 4 and 5 patients combined, whose visits were considered PCR-ED visits that could have been seen by a primary care, urgent care, or other outpatient resource outside the ED. Based on this information, it became evident that the Hispanic population enrolled in a not-for-profit Medi-Cal and Medicare health plan was an appropriate target for a patient navigation effort.
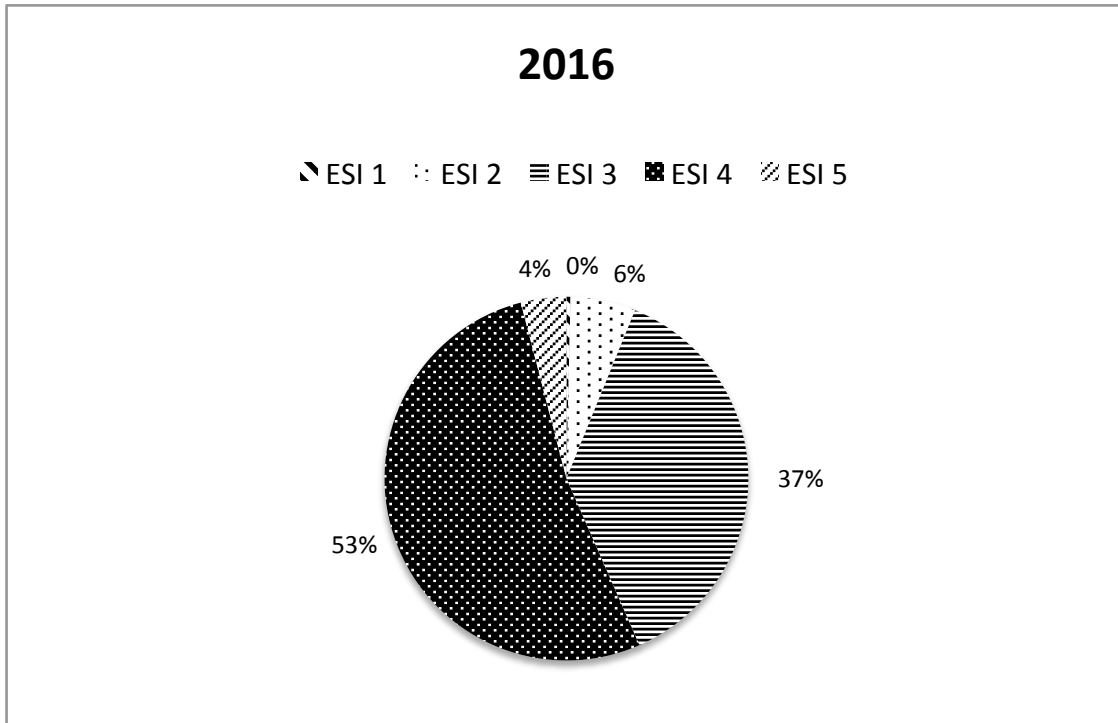
Figure 1. Percentage of Hispanics in 2016 who were enrolled in a not-for-profit Medi-Cal and Medicare health plan, by ESI level at a regional medical center in Southern California.

Table 1

Total ED Visits for Hispanic Patients Enrolled in a Not-For-Profit Medi-Cal and Medicare Health Plan, 2009-2016

	2009	2010	2011	2012	2013	2014	2015	2016	Total
ESI 1	2,997	2,993	1,310	1,602	20	50	52	47	9,071
ESI 2	3,349	2,795	3,287	3,494	263	506	781	797	15,272
ESI 3	98	93	26	483	2,209	3,182	4,462	5,062	15,615
ESI 4	362	326	145	1,014	4,510	6,002	6,935	7,088	26,382
ESI 5	559	407	646	852	756	900	695	534	5,349

Purpose Statement and Project Objectives

The purpose of this project was to to decrease ESI Level 4 and 5 visits and revisits

by 10% within 1 month of implementing a DNP project focused on the Hispanic

population enrolled in a not-for-profit Medi-Cal and Medicare health plan through the use of patient navigators by ensuring that appropriate follow-up treatment and care were attained. The project also had the potential to decrease discharge length of stay, lower the number of patients who left without being treated or seen, and increase safety, patient satisfaction, and capacity. The project objectives were to design a system of care that improved health care for the Hispanic population presenting to the ED at a regional hospital in Southern California and to lead the organization in the development of a culturally relevant patient navigator system.

Significance to Practice

A patient navigator is crucial to nursing practice and may ensure that truly emergent patients are seen in a safe and timely manner, which may result in decreased ED overcrowding and increased patient satisfaction through the provision of population-specific patient navigation to ensure that resources and linkage of care to a primary care provider are offered. Researchers, policy-makers, health professionals, and patients should work together to identify primary reasons for potentially avoidable visits and return ED visits to improve future quality measurement initiatives, which this project promoted (Rising, Victor, Hollander, & Carr, 2014). The importance of this project was also supported by Healthy People 2020's goal of attaining the highest level of health care for all people, increasing access to culturally sensitive health care providers, and focusing on assessment of health disparities by race and ethnicity (Healthy People 2020, 2016). The implementation of a patient navigator program at the ED at a regional medical center in Southern California assisted in decreasing ED congestion, promoted continuity of care,

assisted in decreasing organizational financial losses, and targeted a population with a true need for navigation.

This regional medical center billed $423.16 for ESI Level 5 visits and $688.58 for ESI Level 4 visits, but based on the hospital's contract with the not-for-profit Medi-Cal and Medicare health plan, the medical center was actually reimbursed $291.00 regardless of ESI level. It was anticipated that there was a negative gain in all ESI levels, and with 57% of ESIs consisting of 4s and 5s, creating the greatest opportunity to decrease Medi-Cal payer PCR-ED visits would increase capacity for cash or private-pay insurance. Based on the regional medical center's Medi-Cal and Medicare health plan volumes, it had a potential loss of $132.16 per ESI Level 5 not-for-profit Medi-Cal and Medicare health plan visit and $397.58 per ESI Level 4 visit (see Appendices A and B for ESI patient flow). The amounts are based on a not-for-profit Medi-Cal and Medicare health plan contract versus full potential cash or premium insurance payment. This quantified a potential annual loss of $165,000 for ESI 5 patients, $5,642,455.36 for ESI Level 4 patients, and a grand total of 5,807,455.36 for ESI 4 and 5 combined. It was evident that focused navigation for the Hispanic population might assist in decreasing ED congestion, increasing linkage of care to primary care physicians for Hispanic patients, and reducing organizational financial losses. Furthermore, there was potential to increase ED capacity due to appropriate navigation of 10% of a not-for-profit Medi-Cal and Medicare health plan's Hispanic patients who were ESI 4s and 5s, which would increase the ability to capture and increase cash-pay revenue by 10% through decreased ED congestion and providing access to care for others (see Figure 2).

**Revenue Cash Pay vs Revenue Not-For Profit Medi-Cal and
Medicare Health Plan Reimbursement. YTD, Month End, 2016
Hispanic Visits**

Not-For Profit ESI 5   CASH ESI 5   Not-For Profit ESI 4   CASH ESI 4

CASH ESI 4 — $4,883,409.36

Not-For Profit ESI 4 — $2,063,772.00

CASH ESI 5 — $253,896.00

Not-For Profit ESI 5 — $174,600.00
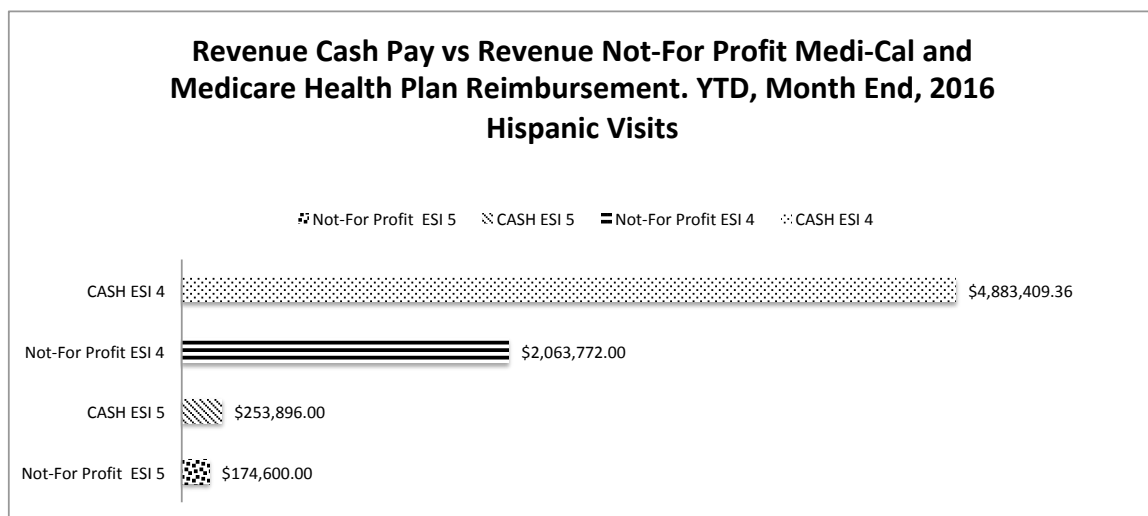
Figure 2. Revenue from cash pay vs. revenue from not-for-profit Medi-Cal and Medicare health plan reimbursement.

In conclusion, there was potential gain in cash revenue of $158,592.00 annually for ESI Level 5; $5,599,274.72 for ESI Level 4; and a total of $5,757,866.72 for ESI Levels 4 and 5 combined.

The payback period, which was the length of time required to recover the cost of the intervention and was defined as the time it took for the cumulative total of net benefits to equal the original investment costs and measured breakeven, was short with the DNP project. It was anticipated that it would be profitable by decreasing the targeted population visits and revisits by 10%. Current and future states of program financial interventions (see Figure 3) support extreme profitably with a 10% decrease in not-for-profit Medi-Cal and Medicare health plan ESI 4 and 5 patients, which would result in the ability to increase ESI 4 and 5 cash-paying patients by 10%, and decreased contact cost resources for both ESI levels in the future state as the not-for-profit Medi-Cal and Medicare health plan reimbursements were low with set contracted reimbursement rates.
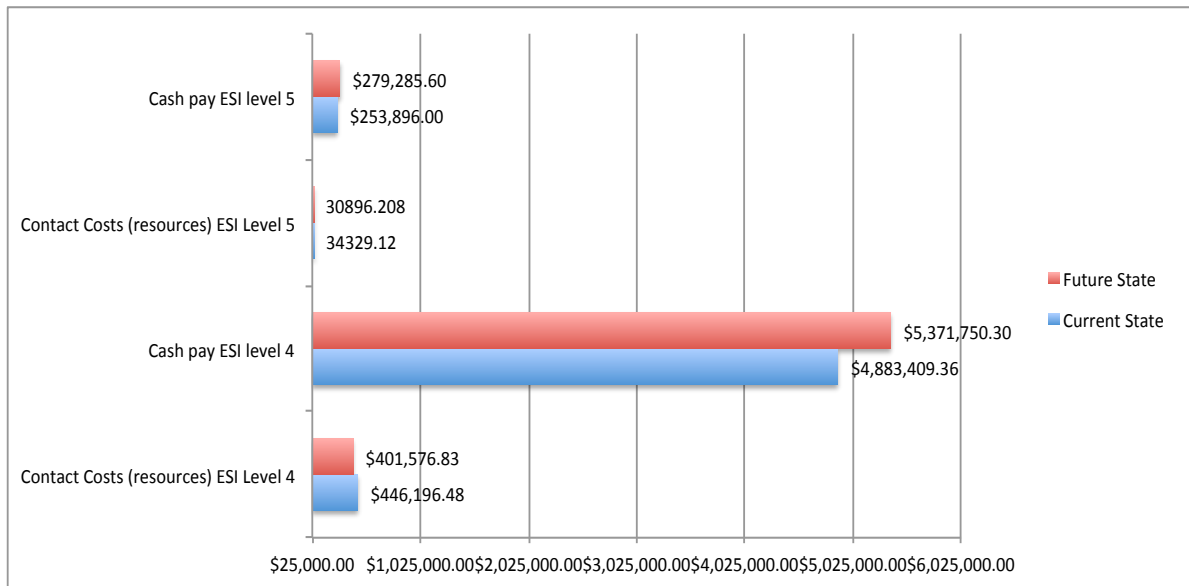
Figure 3. Cash pay and contact costs for ESI Level 4 and 5 current and future states.

The conclusion made in comparing cash pay and contact costs for a 10% increase in cash pay was that ESI Level 5 cash pay could potentially have an annual increase of $50,796 and ESI Level 4 cash pay could have an annual increase of $976,681.88, for an annual total of $1,027,477.88. There was potential savings in contact/resource costs of $6,865.82 for ESI Level 5 and $89,239.30 for ESI Level 4, for a total of $96,105.12 annually (see Appendices C and D).

Therefore, monies put into the patient navigator program could result in gains in cost effectiveness, cost utility, and positive health outcomes for Hispanics enrolled in the not-for-profit Medi-Cal and Medicare health plan. The use of a patient navigator in the ED to decrease PCR-ED visits and revisits by ensuring that appropriate follow-up treatment and care are attained has the potential to increase patient satisfaction, continuity

of care, linkage of patients to primary care providers, and education for the population on available resources that are less expensive than an ED visit (Enard & Ganelin, 2013).

Project Question

This project addressed the following question: How will the implementation of a DNP project for decreasing PCR-ED visits and revisits in the Hispanic population enrolled in a not-for-profit Medi-Cal and Medicare health plan through the use of patient navigators compare to no navigator in decreasing PCR-ED visits and revisits over a 1-month period? A trained person (i.e., social worker, case manager, or registration personnel) was in the ED Monday through Friday from 11:00 a.m.-11:00 p.m. (see Figure 4), when ED volumes were at peak, to facilitate linkages to primary care physicians, resources, or clinics. No comparison group was used, and the desired outcome consisted of decreases in ESI Level 4 and 5 visits to the ED, ED revisits, wait times for emergent ESI 1, 2, and 3 patients, and DLOS, as well as increases in patient satisfaction and linkage to a primary care provider or clinic. The timeframe, once implemented, was reviewed after 30 days.
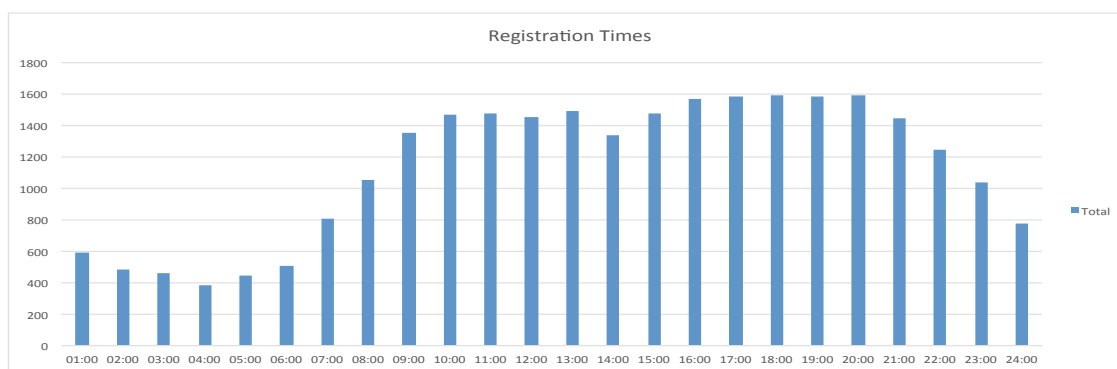
Figure 4. 2016 ESI Level 4 and 5 registration times by hour of day.

Evidence-Based Significance of the Project

The use of an ED patient navigator decreased PCR-ED visits and revisits. Charles (2012) found that the use of an ED patient navigator decreased ED visits and revisits by 65% after implementing an ED navigator who worked with transport and triage in addition to scheduling same-day or next-day outpatient appointments for patients not requiring emergency care. Enard and Ganelin (2013) found potential savings of $4.4 billion annually for the estimated 13%-27% of U.S. PCR-ED visits if patients were seen at an outpatient clinic, a primary care provider office, or urgent care. The savings surpassed spending needed to implement an ED patient navigator focusing on the navigation of care for members of the Hispanic population who came to the ED. The extreme upward trend line (see Figure 5) of start-up costs in correlation to future state savings contact and future state revenue demonstrated that there would likely be a break-even point at less than 5 months of implementation.
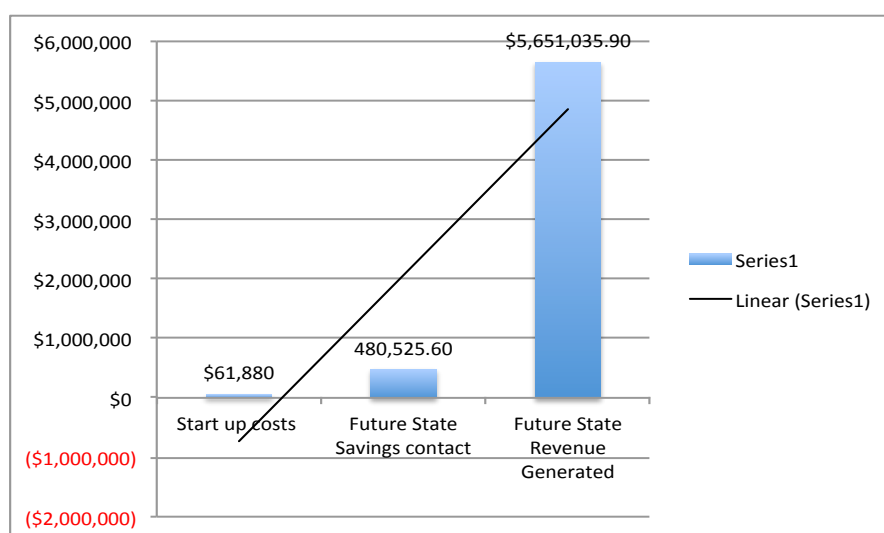
Figure 5. Start-up costs, future state savings contact, and future state revenue generated.

Chaffin (2014) found that the vast majority of the population that came to the ED were unaware of other resources available to them that were either lower in cost or free, so use of an ED patient navigator who focused on scheduling appointments with primary care physicians and/or clinics reduced the number of PCR-ED visits, ED congestion, and wait times. The importance of this effort was also supported by Healthy People 2020's goal of attaining the highest level of health care for all people, increasing access to culturally sensitive health care providers, and focusing on assessment of health disparities by race and ethnicity (Healthy People 2020, 2016).

Implications for Social Change in Practice

Social change in practice may emerge from this project in relation to the cultural diversity of the Hispanic population, human rights, and poverty. Allen and Cummings (2016) conducted a study of Hispanic and non-Hispanic White adults aged 18-64 from 2011 to 2013 using cross-sectional data with logistic regression models to determine urgent and nonurgent ED use. The sample consisted of immigrants who had been in the United States for less than 5 years, for 5 years to 10 years, and for more than 10 years; naturalized citizens; and U.S.-born citizens. Results indicated that 17.8% of Hispanic individuals and 18.5% of non-Hispanic White individuals' annually use the ED more compared to U.S.-born non-Hispanic White individuals (Allen & Cummings, 2016, p. 454). The least acculturated Hispanic population, defined as immigrant Hispanics residing in the United States for less than 5 years, are 14.4% ($p < 0.001$) less likely to use the ED for any reason, 9.8% ($p < 0.001$) less likely to use it for a nonurgent reason, and 5.3% ($p < 0.01$) less likely to use it for an urgent reason (Allen & Cummings, 2016, p.

454). Allen and Cummings found that contrary to perception, the least acculturated Hispanic individuals were less likely to use the ED, but as American acculturation rose, so did the likelihood of ED use for PCR-ED visits. This proved evident with the influx of Hispanics in a Southern California valley, which resulted in an influx of PCR-ED visits at a regional medical center in Southern California so that social changes began to influence behavioral patterns in the ED usage of American-acculturated Hispanics.

Services for the Hispanic population were more successful when the patient navigator spoke Spanish. As Bagchi et al. (2011) found, the use of in-person interpreters significantly increased both patient and health providers' satisfaction and understanding while communicating care and after care in the ED. The Hispanic population specifically focused on for this project used a trained ED patient navigator for those enrolled in a not-for-profit Medi-Cal and Medicare health plan. The health plan, which was fueled by the ACA, covered more than a million people out of the nearly 4 million who lived in the Southern California region (McSherry, 2015). This was of no surprise to the health plan as two-thirds of enrollees became eligible because of the ACA. Because residents of the Southern California region were relatively poor and more likely to be unemployed compared to residents of the rest of the state, this region had the second-largest Medi-Cal health plan in California (McSherry, 2015), which further supported the need for an ED patient navigator program. Social change can happen for this group of people through the promotion of a patient-centered service delivery model to educate the population on facilitation of a healthy lifestyle through education, patient advocacy, and navigation. Through such interventions, knowledge can be gained, and appropriate care and

treatment can be attained in the right place, at the right time (and sometimes for the first time) by this population.

Definitions of Terms

Primary-care-related emergency department (PCR-ED) visits: ED visits classified as ESI 4s and 5s, which are generally primary-care-related ED visits that could have been seen by an urgent care facility, primary care physician, or other outpatient resource. For example, ESI 4 patients are stable, with only one type of resource anticipated, and ESI 5 patients are stable, with no resources anticipated except for oral or topical medications or prescriptions.

Discharge length of stay (DLOS): Time from patient registration in the ED to discharge from the ED. This is generally referred to as *time to discharge* or *door-to-door time in the ED*.

Revisit: Classified as a return visit to the ED within 3 days of an initial ED visit.

Emergency Severity Index (ESI): A valid and reliable five-level triage instrument used to predict ED resource consumption (Gimbel, Tanabe, Yarnold, & Adams, 2004). Refer to Table 2 for ESI five-level triage description.

Table 2

Five-Level Triage

Level	Name	Description
ESI 1	Resuscitation	Immediate, life-saving interventions
ESI 2	Emergent	High-risk deterioration or signs of a time-critical problem
ESI 3	Urgent	Stable, with multiple types of resources needed to investigate or treat (e.g., lab plus X-ray)
ESI 4	Less urgent	Stable, with only one type of resource anticipated (e.g., X-ray or only sutures)
ESI 5	Nonurgent	Stable, with no resources anticipated except oral or topical medications or prescriptions

Hispanic and Latino population: Refers to *Hispanics* and *Latinos* (terms used interchangeably) residing in a Southern California valley. The overall population of Hispanics in the valley comprises 51.4% of the total population (Coachella Valley Economic Partnership, 2014).

Regional medical center in Southern California: A large 385-bed tertiary care hospital located in Southern California, whose 27-bed ED saw over 77,000 patients annually. In 2016, of 77,167 total patients seen in the ED, 29,525 (38%) were Hispanic.

Assumptions and Limitations

A primary assumption was that a DNP project using patient navigators to decrease PCR-ED visits and revisits in the targeted population would be effective. Another assumption was that the population would use the ED navigator person, who would be accepted by the targeted population. A limitation was that secondary data could not be retrieved to indicate the percentage of patients successfully navigated in the ED who actually attended their follow-up appointments or visits.

Summary

In summary, by implementing an ED patient navigator job role to focus on the Hispanic population at a regional medical center in Southern California, an effort was made to decrease ED decongestion, decrease wait times, increase the number of patients seeing primary care physicians, increase throughput efficiencies, and reduce potential safety risks by ensuring that care was not delayed for those with true emergencies. It is imperative for health care leaders to think of new ways to decrease potentially avoidable visits to the ED and promote visits to primary care physicians (Wuerz, 2011). The implementation of an ED patient navigator supported the recommended promotion of patient navigation found in articles and research.

Section 2: Review of Scholarly Evidence

Specific Literature and General Literature

A literature review was completed on the following topics: Hispanic populations'

use of EDs, ED patient navigators, American-acculturated Hispanics and use of health

care, and primary-care-related ED visits and revisits. A general search was completed on

the ACA, ED overcrowding, increases in ED visits and the need for more physicians, and

risks associated with overcrowded EDs. These were selected as key areas of interest

based on their relevance and influence on the project. The search was conducted using

nursing and health databases of CINAHL, MEDLINE, and ProQuest Nursing and Allied

Health Source. Search modes and expanders were Boolean phrases, and results were

limited to full text, published later than 2010, scholarly, peer reviewed, journals, and in

English. Key words used were *Hispanics*, *Affordable Care Act*, *ED visits and revisits*,

not-for-profit Medi-Cal and Medicare health plan, *primary-care-related ED visits*, and

patient navigator. I reviewed abstracts prior to reading full texts to ensure the sources'

relevance to the project. Themes that evolved from the literature review were the

Hispanic population and use of emergency departments, primary-care-related ED visits

and revisits and the use of ED patient navigators, American-acculturated Hispanics and

the use of health care, Affordable Care Act, ED overcrowding and associated risks, and

increases in ED visits indicating a need for more physicians.

Hispanic Population and Use of Emergency Departments

Hispanic patients with Medicaid have been disproportionately represented among

racial and ethnic minority groups that have faced barriers in accessing primary care

resulting in PCR-ED visits and preventable hospitalizations (Wright, Potter, & Trivedi, 2015). A study by Fair Health Consumer (2015) found that Latino consumers were nearly twice as likely as the general population to go to the ED for nonemergency care (39% Latino vs. 21% total population). Garcia, Bernstein, and Bush (2010) found that with decreases in the number of EDs and higher numbers of ED visits, overcrowding was inevitable, and persons with Medicaid were more likely to report at least one ED visit and multiple ED visits in a 12-month period than those with private coverage or those who were uninsured. Hong, Baumann, and Boudreaux (2007) found that Hispanics were more likely to choose to be seen at an ED than elsewhere because Hispanics perceived that they would receive better quality care in the ED. Hispanics were less likely to have insurance, were more likely to have economic disadvantages, and rarely had access to acute medical care outside the ED, which caused ED congestion (Hong, Baumann, & Boudreaux, 2007). For this group, navigation to available resources outside the ED was of pivotal importance. With proper use of ambulatory care health centers, Wright, Potter, and Trivedi (2015) found a 12% decrease in hospitalizations and ED visits. Sarver, Cydulka, and Baker (2002) found that patients who were dissatisfied with their usual source of care or perceived access barriers to usual care were more likely to have nonurgent ED visits. Glover, Purim-Shem-Tov, Johnson, and Shah (2016) found that Hispanic/Latino and African Americans were disproportionately represented among those who used the ED for primary-care-related visits due to lack of knowledge of available resources. Further intervention strategies were done to target the reduction of health disparities through decreased use of ED services.

Primary-Care-Related Emergency Department Visits and Navigators

While the economy continued to struggle toward improvement during implementation and adoption of the ACA, there was a direct impact on the healthcare industry and its consumers. Hospitals struggled with reduced reimbursement and mandatory pay-for-performance measures by the Centers for Medicare and Medicaid Services (CMS), which included reduced payments for negative outcomes, poor quality, low patient satisfaction scores, and certain readmissions (Madden, Carrick, & Manno, 2012). These issues, in combination with the increase in the number of people covered under ACA, contributed to increased ED volumes, causing ED overcrowding that resulted in a national ED average wait time of approximately four hours (Madden, Carrick, & Manno, 2012).

Despite many efforts to increase equity in the United States healthcare system, Americans have not been afforded equal access to healthcare or positive health outcomes (Natale-Pereira, Enard, Nevarez, & Jones, 2011). Primary-care-related ED use, which involves conditions that are treatable or preventable with appropriate primary care services, has been directly associated with increased costs to the medical system and decreased ED efficiency (Enard & Ganelin, 2013). Most patients who present to the ED for PCR-ED reasons have experienced or perceived problems in accessing resources or appropriate medical care, which led to their decision to go to the ED for care and treatment (Enard & Ganelin, 2013).

To meet the needs of the Hispanic population and decrease PCR-ED visits and revisits, a patient navigator was implemented to steer patients through the healthcare

system, to assist them in attaining follow-up healthcare services, and to connect them

with community resources and thus reduce the amount of ED visits and revisits (Madden,

Carrick, & Manno, 2012). To best serve the Hispanic population, the intervention was

facilitated with a bilingual Spanish trained employee who counseled medically

underserved patients and connected them with support services, increasing

communication and providing culturally sensitive care (Enard & Ganelin, 2013). The use

of a patient navigator not only improved healthcare access, but also addressed deep-

rooted issues related to distrust in providers and the healthcare system, which had led to

avoidance of health care problems and noncompliance with recommended treatments

(Natale-Pereira et al., 2011). By addressing cultural differences and language barriers that

made it difficult for patients to seek appropriate treatment or resources, the patient

navigators fostered trust with the population served, encouraging patients to trust the

healthcare system and empowering them to seek appropriate levels of care in order to

reduce ED visits (Natale-Pereira et al., 2011). Robie, Alexandru, and Bota (2011) found

that patient navigators, who focused on the Hispanic population, were useful in removing

barriers that limited access to health care for minorities, which also increased patient

satisfaction. Patient navigators had backgrounds as social workers, case managers, or

registration personnel. Patient navigators received training on communication with the

Hispanic population, which focused on culture, language, literacy, and ways to increase

trust that would assist with psychological factors, financial training on resources available

in the community for Hispanics enrolled in the not-for-profit Medi-Cal and Medicare

health plan, referral training, appointment scheduling, and care coordination (Enard & Ganelin, 2013).

American-Acculturated Hispanics and Use of Health Care

Despite healthcare and community perception of the Hispanic population and the use of the ED, Hispanics with increased American acculturation (i.e., U.S.-born Hispanics, generally second or third generation) were found to use the ED for PCR-ED visits and revisits more often than Hispanics who were less acculturated and immigrants who had been in the United States for less than 5 years, resulting in an increase in nonurgent ED visits (Allen & Cummings, 2016). In managed-care healthcare systems, the burden of managing and negotiating health care shifted to the consumer, who had to choose from a list of specific providers. In some cases, an approved provider might not be available for months, resulting in PCR-ED visits (Cafferty & Engstrom, 2007). Cafferty and Engstrom (2007) suggested that out of all of the populations included in federal reports, nonacculturated Hispanics—immigrants who had been in the United States for less than 5 years—were least likely to have a regular source of care (about 30%, or 8.4 million). Of the total Hispanic subgroup, Mexican Americans were the least likely to have a primary care provider (Cafferty & Engstrom, 2007). Patients who do not have a source of primary care are more likely to pursue ED visits. A patient navigator can assist such patients in seeking care and resources to avoid future ED visits.

Affordable Care Act

The overall goal of the ACA was to increase accessibility of and access to health insurance for Americans. Since its inception, the number of people covered by health

insurance in the United States has steadily increased (McMorrow, Long, Kenney, & Anderson, 2015).

Furthermore, the ACA has narrowed insurance-coverage gaps for Black and Hispanic adults; however, Hispanics have continued to have larger gaps in coverage in comparison to other races (McMorrow et al., 2015). Data from the 2014 National Health Interview Survey found that by the fourth quarter of 2014, the uninsured rate for Hispanic adults, both citizens and noncitizens, had fallen to 31.8% from 40.1% in the third quarter of 2013, which was immediately before ACA open enrollment (McMorrow et al.).

The ability for the ACA to reduce racial and ethnic disparities in health insurance coverage was attributed to two factors. The first factor was that the Supreme Court ruling in the *National Federation of Independent Business v. Sebelius* lawsuit resulted in optional Medicaid expansion for states. As of July 2015, only 28 states and the District of Columbia had implemented the ACA, which was a problem for those living in states who did not implement the ACA, where there was a lack of insurance coverage (McMorrow et al., 2015). The second reason was that undocumented immigrants were ineligible for Medicaid and were unable to purchase subsidized coverage (McMorrow et al., 2015). California implemented the option of the ACA, which increased the number of insured Hispanics but also left them with a need for navigation of care because education, cultural background, and financial constraints have made it difficult for this population to attain appropriate care (Robie, Alexandru, & Bota, 2011).

Emergency Department Overcrowding and Associated Risks

With increased demand for health care and a deficit in available hospital and ED beds, ED overcrowding has become an increasingly significant worldwide public health problem within the last decade (Di Somma et al., 2015). Knapman and Bonner (2010) found that extended wait times and overcrowding in EDs also increased the amount of those patients who left without being seen ($p < 0.05$); in such cases, both the patient and the organization were at risk. The increase in ED volumes not only negatively impacted those who arrived as walk-ins, but also increased turnaround times for ambulances due to longer wait times for ED beds (Lee, Shin, Lee, Cho, & Cha, 2015). Delays related to transfer of care removed ambulances and crews from communities where they needed to be, thus compromising response times for true emergencies (Lee et al., 2015).

A study specifically involving stroke patients found that ED overcrowding resulted in delays in patients being transferred to appropriate specialty departments, which led to an increase in complications, increased length of stay, slower recovery, and increased risk for mortality (Akhtar et al., 2016). Schiff (2011) found that overcrowding of U.S. EDs was a widely recognized and growing problem with 10 fundamental components:

1. Variation and supply-demand mismatch

2. Shortage of primary care providers

3. Limited afterhours access

4. Admission throughput challenges

5. Clinical challenges related to discontinuity patients

6. Interruptions

7. Logistic testing challenges

8. Clinical challenges related to specialty needs

9. Suboptimal information systems

10. Fragmented health insurance system

Due to the difficulty of accurately forecasting demand in EDs, it became an urgent issue for hospital administration to optimally manage patient flow, improve management strategies, and ensure efficiency and safety for all patients visiting EDs (Kadri, Harrou, Chaabane, &Tahon, 2014). A conclusion to be drawn from the studies is that a decrease in ED congestion through implementation of a patient navigator program assisted in decreasing ED overcrowding and risks associated with it.

Conceptual Model, Theory, and Framework

Conceptual models and theoretical frameworks serve as blueprints for project design and implementation. In this project, the health belief model (HBM) was used in relation to the Hispanic population, and Lippitt's model of change was used to assist in understanding organizational change. These two models blended well for the implementation of an ED patient navigator to assist Hispanics and support the organization through the process of change.

Health Belief Model

It is necessary to consider cultural fit when choosing a model relevant to a health care problem. As one of the most popularly used models for health promotion and education, the HBM was chosen for this project (Walsh, 1995). The Hispanic population

identified problem of PCR-ED visits, as its principles, was built upon to help change Hispanic population behaviors with regard to healthcare navigation (Glanz, Rimer, & Lewis, 2012). Research indicated that members of the Hispanic population from immigrant families tended to know little about American health care beliefs, benefits, and practices unless they were members of the second or third generation born in the United States (Sanchez-Birkhead, Kennedy, Callister, & Miyamoto, 2011). In order to create changes in process or practice for this population, it was necessary to establish further understanding of their existing health beliefs, health promotion practices, past health experiences, and transition to American health care. The HBM was used to help these patients see that they could help themselves by providing education from trained staff about their medical conditions (Sanchez-Birkhead et al., 2011).

The HBM indicates that individuals assess their susceptibility to ill health, risks involved in illness, and benefits associated with a visit to an ED. The HBM may be used to explain and predict health behaviors, particularly in regard to the uptake of health services. Items considered through decision making are availability of care, cost of care, failure or success of alternative home remedies, patient perception of a problem, and perceptions of significant others in the patient's life (Walsh, 1995). The underlying concept is that health behavior is determined by personal perceptions about diseases, personal beliefs, and strategies available to decrease or manage occurrences (Hochbaum, 1958).

There were four theoretical constructs in the original HBM: perceived seriousness, perceived barriers, perceived benefits, and perceived susceptibility. Over

time, three more constructs were added: motivating factors, self-efficacy, and cues to

action (Hayden, 2009). People have to believe that they can change before they will

change; thus, the patient navigation project involved using the HBM to assist members of

the Hispanic population in believing that they could change their behaviors. The

behaviors of interest were related to health care, and individuals were assisted in making

behavioral change through linkage to care to a primary care provider or urgent care, or

navigation to a community resource rather than attaining PCR-ED treatments in the ED.

Jones et al. (2015) found that use of the HBM achieved optimal behavioral change with

successful targeting of perceived barriers, self-efficacy, benefits, and threats.

Eliciting representation of the Hispanic population in developing the goals and

objectives for the program was imperative as the embracing of stakeholders increased the

knowledge needed to make decisions and the outcomes for review (Saan et al., 2015). To

gain involvement from the Hispanic population in designing the program, the following

steps were taken: (a) reduced stakeholders' distrust and fear of evaluation, (b) increased

stakeholder awareness, (c) adhered to recommendations of utilizing Spanish or primary

language to communicate, and (d) involved stakeholders in the planning and evaluation

process (CDC, 2012). Having Hispanic representatives on the patient family advisory

council facilitated additional feedback and increased the involvement of the Hispanic

population. This council, which focused on person-centered care and placed patients in

the center of discussions and decision making, consisted of patients, families, and friends

of patients who had direct involvement with the organization. Healthcare organizations

that embrace patient-and family-centered care at all levels of operation achieve quality

improvement, increased patient satisfaction, and customer focus (Halm, Sabo, & Rudiger, 2013). In order to ensure that the organization remained person centered, the mission, goals, objectives, and activities (see Figure 6) were shared with the facility's patient family advisory council, which already included Hispanics and members of other races, where they were agreed upon for successful planning and implementation of the ED patient navigator program.
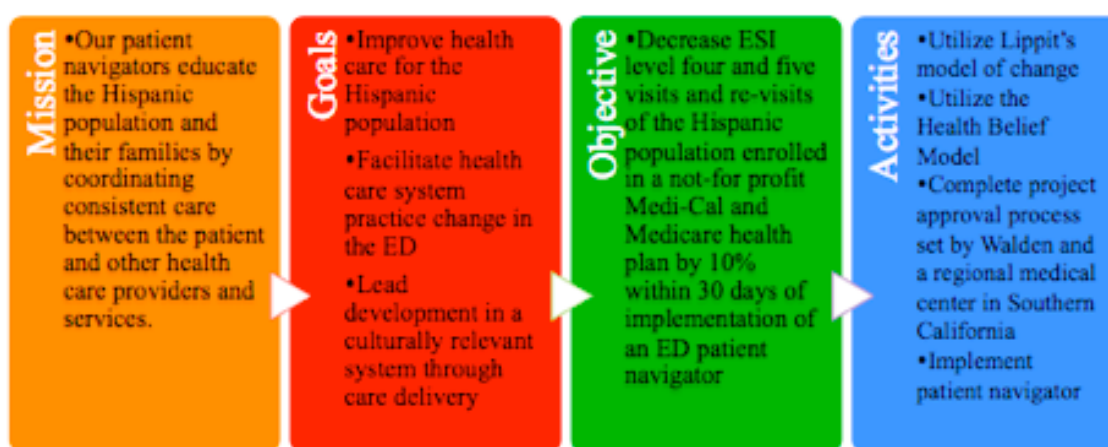
Figure 6. Project mission, vision, goals, and objectives.

Lippitt's Model

Lippitt's model of change was useful in implementing a patient navigator program at the regional medical center in Southern California. It was the most appropriate evidence-based model for the project as it focused on the role of the leader in the change process, as a change agent, which was useful for non-nursing and nursing leaders by following a seven-step process (White & Dudley-Brown, 2012). The seven steps were as follows:

1. Developed the need for change by diagnosing the change.

2. Established change relationships and assessed the motivation and capacity to change.

3. Clarified assessment for change and determined resources.

4. Established goals and interventions for an action plan.

5. Examined alternatives.

6. Transformed intentions into actual changes and maintained the change.

7. Generalized and stabilized change and ended the helping relationship of the change agent (White & Dudley-Brown, 2012, p. 53).

Lippitt's model of change was an appropriate model for nursing as it broadly incorporated the familiar steps of the nursing process and could be applied in virtually any nursing setting (Geraci, 1997). First, the nurse diagnosed an actual or potential problem by assessing all parameters of the problem and the readiness of the environment for change. The nurse then developed an action plan in collaboration with the members of the team, which included objective goals with a timeline. Lastly, the plan was implemented in progressive stages that included periodic evaluation of projected outcomes at each stage and revision of the plan as necessary to meet overall goals (Geraci, 1997). Since the organization didn't know who was going to come to the ED, Lippitt's theory couldn't prepare the Hispanic population for change but could prepare the organization for change and applied to the patient navigator program, which was a constant, and was helpful in expanding and clarifying how to manage planned change. Mitchell (2013) found that using a framework, such as Lippitt's, proactively versus

retrospectively assisted in eliminating potential problems, while addressing and acting on others, resulted in organizational success of change. Furthermore, MacDonald (2013) found that Lippitt's model of change offered a similar process that closely aligned with nursing process and was appropriate for change management in a variety of settings.

Summary

In summary, after conducting a general and specific literature review there was opportunity to increase care for the Hispanic population who present to the ED. By implementing a patient navigator program, utilizing the Health Belief Model, and Lippitt's model for change, the regional medical center in Southern California assisted in navigating this vulnerable population. Project-deign and methods were based on supportive research found.

Section 3: Approach

Project Design and Methods

This project was designed to decrease PCR-ED visits and revisits through the creation and use of a patient navigator system. A conceptual model was created (see Figure 7) to provide visual representation of the flow and utilization of a trained patient navigator (i.e., social worker, case manager, or registration personnel) in the ED. The patient navigator educated members of the Hispanic population, referred them to various resources outside the ED, and assisted in scheduling care for them through these resources. The project was developed in phases and was conceptualized after a review of literature and best practices of other organizations. Consultation began with administration, ED leadership, Hispanic patients, registration, case management, social workers, and other support services. Training of ED registration personnel followed. The following steps were completed to implement the patient navigator program:

1. Diagnosed the problem and planned for sustainability.

2. Assessed motivation, capacity for change, and need for a patient navigator system; engaged key stakeholders.

3. Assessed resources; defined the scope, cost, and motivation of the change agent; and enlisted support from departments/organizations involved in the Hispanic patients' care.

4. Defined progressive stages of change with goals and interventions.

5. Examined alternatives and evaluated potential obstacles.

6. Implemented strategy, scope, and patient navigator role; maintained the change.

7. Trained patient navigators. Initially, I had planned for social workers or case managers to serve in this role. I decided to use registration personnel instead because these personnel were present 24 hours a day, in contrast to case managers and social workers. The director of patient access, the director of the ED, and the assistant chief nursing officer oversaw registration personnel.

8. Patient navigator implemented and coordinated the navigation system and prepared, referred, and tracked the target population.

9. Gradually removed the change agent from the relationship as the change became part of the organizational culture.

10. Assessed and reassessed program effectiveness to attain sustainability.

Engagement of key stakeholders is the basis and foundation for good corporation governance yet is often underestimated or ignored (Sridharan et al., 2007). Engaging key stakeholders (i.e., not-for profit Medi-Cal and Medicare health plan personnel, members of the administration, management, hospital staff, local not-for-profit Medi-Cal and Medicare health plan resources, and members enrolled in the not-for profit Medi-Cal and Medicare health plan) supported and enabled the connection of stakeholders from both upstream and downstream to meet and collaborate.

The patient navigator focused on members of the Hispanic population enrolled in the not-for-profit Medi-Cal and Medicare health plan who enrolled as ESI Level 4 or 5 patients. Upon arrival to the ED at the regional medical center, members of the target

population registered, provided a chief complaint, were triaged by a registered nurse, had a medical screening exam completed by a physician or midlevel provider, received care and treatment, and once medically cleared, were provided discharge instructions and/or prescriptions by a nurse and were referred to the trained registration personnel for navigation. Registration personnel were ultimately used in this role because these staff were available 24 hours a day, 7 days a week, and continued to provide navigation to care even during off-peak hours. The ultimate objective was to decrease PCR-ED visits and revisits by 10% within 1 month of implementation.

Resources used by the patient navigators as PCR-ED patients were discharged included information on and referrals to other hospitals, specialists, labs, imaging, primary care physicians, forms of therapy, and/or home health (for patients who had primary care providers). The goal was to educate members of the Hispanic population to ensure that they were aware of other resources available to them outside the ED while supporting them in continuity of care and treatment received while in the ED. By assisting Hispanic patients in differentiating situations in terms of the need for or use of the ED and providing resources on other means of health care, a decrease in ED congestion was achieved.
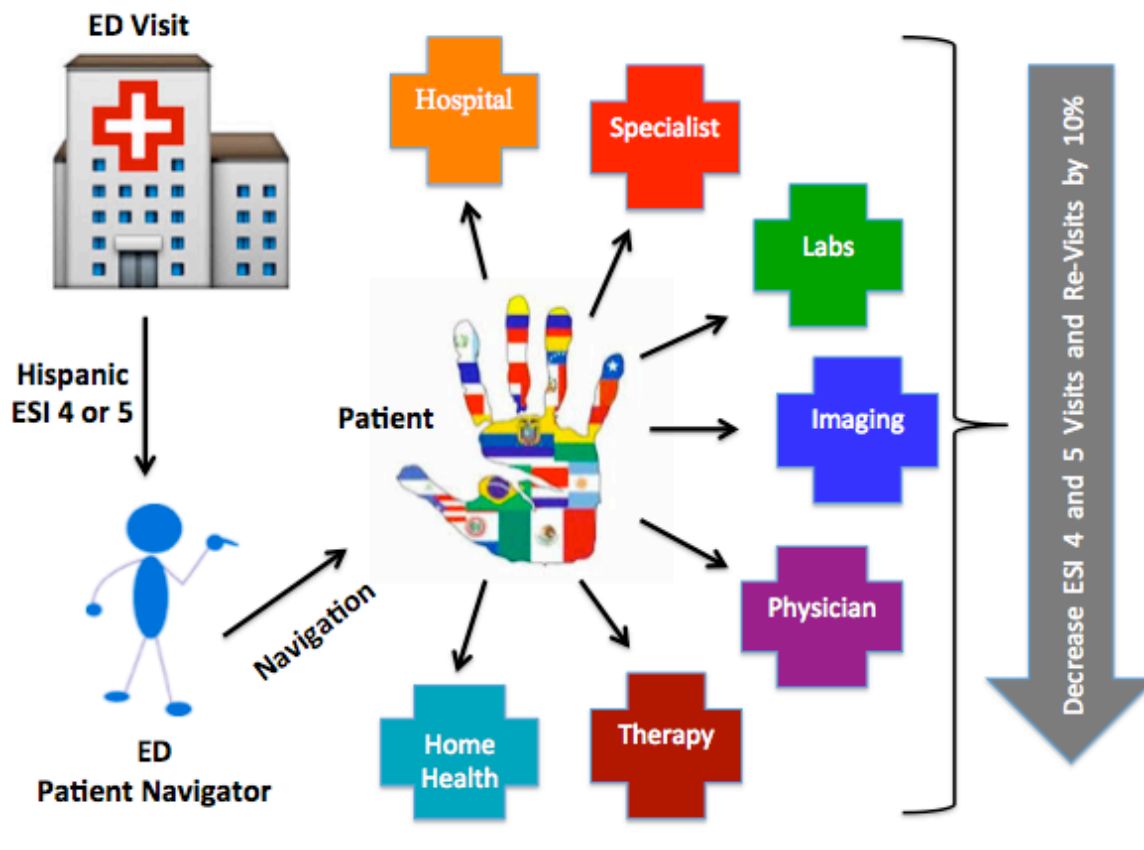
Figure 7. Program design.

Total projected expenses for 2 months were $28,060 (see Appendix E) to support

2.1 full-time-equivalent ED patient navigators (case managers or social workers) in the

ED 12 hours per day, 7 days per week, from 11:00 a.m.-11:00 p.m., when ED volumes

peaked for ESI Level 4 and 5 patients. Registration personnel were ultimately used for

navigation; these staff did not incur any additional overhead charges because they were

already available 24 hours a day, 7 days a week. The target population included

Hispanics enrolled in the not-for-profit Medi-Cal and Medicare health plan. Other

expenses included were supplies, marketing and media, cell phones, travel, food, and miscellaneous overhead and contingency items.

Population

The target population for this project was Hispanic patients (with no limitations in terms of age, sex, or sexual orientation) enrolled in the not-for profit Medi-Cal and Medicare health plan who registered in the ED at the regional medical center in Southern California for PCR-ED visits that were classified as ESI Level 4 and 5 from September 5, 2017 though October 5, 2017.

Data Collection, Data Analysis, and Project Evaluation Plan

Evaluation of outcomes, data collection, data analysis, and project evaluation were accomplished with the use of electronic health records (EHR). The specific data were analyzed using a quantitative research method, including Emergency Severity Index levels and wait times associated with each, patient satisfaction scores, and tracking of visits and revisits of the targeted population. A review of data was completed at the end of the 30-day project from September 5 through October 5, which involved analysis of data pre- and post intervention, same time, year over year, for 2016 and 2017. With the transition from paper documentation to EHR, there has been a major shift in clinical documentation and the ability to routinely collect essential demographic, clinical, and meaningful data for evaluation and analysis (Cochran & Baus, 2015).

Sustainability

Consideration of sustainability was part of the initial planning phase for the project. Sustainability can be attained for the ED patient navigation system by

collaborating with health care providers, ensuring a seamless continuum of care, and ensuring that the organization provides financial support for the program on an ongoing basis (Plochg, Delnoij, Hoogedoorn, & Klazinga, 2006). To further promote sustainability, the key stakeholders—the Hispanic population and the regional medical center in Southern California—must have equal involvement during the planning, implementation, and re-evaluation phases to ensure that the needs of both parties are met (Hanson, Salmoni, & Volpe, 2009). Fleiszer et al. (2015) suggested that persistent, complementary, aligned, committed leaders of change further sustainability after program implementation.

After successful project implementation, this project was turned over to the director of the ED, who will continue to exercise oversight of it in partnership with the director of patient access and the chief nursing officer. Their leadership will ensure that ED congestion continues to decrease and that the specific needs of the Hispanic population continue to be met while assuring sustainability.

Summary

In conclusion, laying the foundations for new approaches to practice is imperative in the advancement of health care. To effectively and efficiently implement and promote a positive change project, I spent time determining an area of opportunity, researching EBP relevant to the opportunity, evaluating current research, and identifying a practice and change model or theory. My research suggested that there was a need for ED patient navigators, given patients' lack of knowledge of available resources. The Hispanic population benefitted from this project.

Section 4: Findings and Recommendations

Introduction

The purpose of this project was to decrease ESI Level 4 and 5 visits and revisits classified as PCR-ED by 10% within 1 month of implementing a DNP project focusing on the Hispanic population enrolled in a not-for-profit Medi-Cal and Medicare health plan. This project involved the use of patient navigators to ensure that members of the targeted population received appropriate follow-up treatment and care. Other outcomes included improvements in DLOS, total ED walkout rates, patient satisfaction, ED copays received, and capacity for higher acuity patients to be seen. The project was conducted over a 30-day period, and comparison was done year over year for the same dates. The dates of the project were September 5, 2017, through October 5, 2017; project data were compared to data for September 5, 2016, through October 5, 2016.

Findings and Implications

Baseline results supported the implementation of an ED navigator for decreasing PCR-ED visits and revisits (see Table 3). Although there was a 13.28% decrease in total ED visits, there was a decrease in overall PCR-ED visits. Total ESI Level 4 patients decreased by 17.38%, and ESI Level 5 patients decreased by 41%, which allowed for increase in capacity for higher acuity growth of 46.94% of total ESI Level 1 patients seen.

Table 3

Total ED Visits by ESI Level—September 5, 2016 through October 5, 2016, and
September 5, 2017 through October 5, 2017

	2016	2017	% increase or % decrease
ESI 1	49	72	46.94% increase
ESI 2	702	708	0.85% increase
ESI 3	2,652	2308	12.96% decrease
ESI 4	2,083	1721	17.38% decrease
ESI 5	184	108	41% decrease
Total	5,670	4,917	13.28% decrease

Although there was a 17.47% decrease in Hispanics enrolled in the not-for-profit

Medi-Cal and Medicare health plan seen in the ED, there was a 9.06% decrease in ESI

Level 4 patients and a 66.67% decrease in ESI 5 patients. Combined PCR-ED visits and

revisits decreased by 14.31% in the target population. As a result, there was increase in

capacity and a 200% increase of ESI Level 1 Hispanic patients enrolled in the not-for-

profit Medi-Cal and Medicare health plan (see Table 4).

Table 4

Total Hispanic Not-for-Profit Medi-Cal and Medicare Health Plan ED Visits—
September 5, 2016 through October 5, 2016, and September 5, 2017 through October 5,
2017

	2016	2017	% increase or % decrease
ESI 1	3	9	200% increase
ESI 2	69	58	15.94% decrease
ESI 3	428	328	23.36% decrease
ESI 4	508	462	9.06% decrease
ESI 5	51	17	66.67% decrease
Total	1,059	874	17.47% decrease

Further findings revealed a dramatic increase in point-of-service cash collection, insured and self-pay, with use of registration personnel as patient navigators who were able to support the ED 24 hours a day, 7 days a week. Year over year, there was an increase of insured copays collected by 146.88% and an increase in self-pay by 92.73% (see Table 5).

Table 5

Point-of-Service Cash Collections, Insured and Self-Pay—September 5, 2016 through October 5, 2016, and September 5, 2017 through October 5, 2017

	2016	2017	% of increase
Insured	$14,545	$35,908	146.88%
Self-pay	$7,980	$15,380	92.73%

Based on this information, it became evident that the use of ED registration personnel as patient navigators increased point-of-service cash collections for both insured and self-pay ED patients as they were able to facilitate navigation and collection of cash in the same interaction, which would not have been possible if a case manager or social worker had served as the patient navigator.

Additional significant findings reveal an increase in patient satisfaction and experience scores with an increase year-over-year trend with the implantation of a patient navigator. For 2017, during the project time frame, there were 31 surveys completed, with 45-50 surveys anticipated to be turned in from September 5, 2017 through October 5, 2017. Based on surveys received thus far, there was a 25.88% increase in patient satisfaction and experience scores, year over year, in the same time frame for 2016 and 2017 (see Table 6).

Table 6

Emergency Department Patient Satisfaction Scores—September 5, 2016 through October 5, 2016, and September 5, 2017 through October 5, 2017

Total patients surveyed	2016	2017	% of increase
n = 50	68.4		
n = 31		86.1	25.88%

Further findings support the implementation of a patient navigator system, in that navigators increased throughput and increased capacity. It became evident that the use of ED registration personnel as patient navigators decreased median DLOS by 8%, which increased capacity for patients with higher acuity. There was a decrease of 18% in the total walkout rate, which also decreased risk for patients and the facility (see Table 7).

Table 7

Total Patients Seen, ED Average Daily Census, Median ALOS, Median DLOS, % LWBS, % LWOT, % LAMA, % Eloped, % Total Walkout—September 5, 2016 through October 5, 2016, and September 5, 2017 through October 5, 2017

Data points	2016	2017	% increase or % decrease
Total patients seen	5,670	4,917	13.28% decrease
Median ALOS	300 minutes	317 minutes	5% increase
Median DLOS	148 minutes	136 minutes	8% decrease
% LWBS	0.7%	0.0%	100% decrease
% LWOT	0.5%	0.7%	39% increase
% LAMA	0.7%	0.6%	14% decrease
% eloped	1.4%	1.4%	0% neutral
% total walkout	3.3%	2.7%	18% decrease

Implications

The implications of this project were a decrease in ED congestion, a decrease in PCR-ED visits and revisits, and an increase in capacity to care for those with true

emergencies. These implications are supportive of the findings of Charles (2012), who reported that the use of ED patient navigators decreased ED visits and revisits for patients not requiring emergency care. These patients would be classified as PCR-ED visits and revisits. Originally, I planned for case managers or social workers to be used as patient navigators during the peak hours of 11:00 a.m.-11:00 p.m., Monday through Friday, but I decided to use ED registration personnel in this role because ED registration personnel cost less to employ and were in the ED 24 hours a day, 7 days a week. The results indicated that Hispanics enrolled in the not-for-profit Medi-Cal and Medicare health plan benefited from patient navigators, in that results revealed increased patient satisfaction, increased capacity, decreased DLOS, decreases PCR-ED visits and revisits, and decreased total walkout rates.

Recommendations

The results of this project demonstrated that efforts to decrease PCR-ED visits and revisits by using an ED patient navigator should continue and expand to all populations that come to the ED. My recommendation would be to implement this process at other hospitals in the Southern California valley because they serve the same population and could benefit from increases in capacity to see critically ill patients, decreases in DLOS, potential increases in patient satisfaction, and decreases in total walkout rates. For this medical center to see any increase in point-of-service cash collection (insured and self-pay), I would recommend that an additional member of the registration personnel be placed in the ED from 11:00 a.m.-11:00 p.m. to assist with patient navigation and collection of service cash at times of peak ED volume.

Strengths and Limitations of the Project

In every project, there are strengths and limitations to be learned from and expounded upon. A key strength of this project was the use of current staff as patient navigators for Hispanics enrolled in the not-for-profit Medi-Cal and Medicare health plan, in that their work did not increase overhead for the organization yet provided navigation and linkage to needed care for the targeted population. Patient navigation was supported and delivered both verbally and in writing, as well as through both English and Spanish, which supported the targeted Hispanic population's needs.

Additionally, the project's application of Lippitt's model of change benefited the organization through change management and preparation for sustainability. The engagement of frontline staff and the support of directors, physicians, and administrators ensured that there would be support, sustainability, and further positive outcomes for the program in the future. The results of this project indicate that a well-thought-out, well-informed, detailed, focused DNP quality improvement project can be conceived and executed with strong quality outcomes.

Limitations of this project included the fact that data were only collected over a 30-day period. Further decreases in PCR-ED visits and revisits may occur over time as linkage to care and patient navigation increase for the target population. Additional limitations with regard to patient satisfaction and experience scores include the fact that ED patient experience survey vendors changed and their manner of assessment of patient satisfaction from 2016 to 2017, presenting patient satisfaction and experience questions in a different format, using different words. There have been 31 2017 ED patient

satisfaction and experience surveys completed for the project time frame thus far, but an average of 50 ED surveys are completed each month. Furthermore, the decrease in total patients seen year over year for the same time period made it difficult to correlate and quantify data to ensure that variation in statistical analysis was accurate.

Summary

The findings of this project support the use of a patient navigator system for decreasing PCR-ED visits and revisits in the Hispanic population enrolled in a not-for-profit Medi-Cal and Medicare health plan. The use of patient navigators decreased PCR-ED visits and revisits and created capacity for higher acuity patients to be seen in the ED. After project implementation, further positive outcomes were attained as well. The data support the ongoing practice of patient navigation for Hispanics enrolled in the not-for profit Medi-Cal and Medicare health plan and should be expanded to all populations in the future.

Section 5: Dissemination Plan

Dissemination

Results of this DNP project were shared with the chief executive officer, chief nursing officer, regional chief nursing officer, chief financial officer, DNP project mentor, physicians, front line staff, and leadership within the organization with a PowerPoint presentation. Statistical information on outcomes was shared with front line staff, the ED team, registration, and other support services. Congratulations were given to the teams that supported the project by providing great service to not only the target population, but also all ED patients. The information was shared over a week and was discussed during team huddles, sent via email, and discussed during department meetings with interactive conversations and suggestions to ensure and attain sustainment.

Analysis of Self

The DNP project and curriculum provided the education, expertise, project management, vision, strategy, research, and tools needed to increase my knowledge as a change agent, leader, and mentor. The DNP essentials, specifically interprofessional collaboration for improving patient and population outcomes, provided a true framework for comprehensive knowledge and understanding, as well as for my growth into my administrative role as chief nursing officer by supporting evidence-based practice, applying peer-reviewed research in projects or initiatives, and supporting others in attaining higher levels of education while practicing at the highest level possible, given their license and education.

Another area of true growth for me in this project was work-life balance, in that I had to trust and lean on my family, friends, and peers for support. My chairperson was of pivotal importance and served as a beacon of light. The completion of this project, along with my program coursework and the relationships I have formed in this process, have catapulted me to the next level in my career as a chief nursing officer.

Summary

Lippitt's model of change was useful in implementing a patient navigator at a regional medical center in Southern California. It was the most appropriate evidence-based model for the project because it focused on the role of the leader in the change process as a change agent (White & Dudley-Brown, 2012). Furthermore, one of the most popular models for health promotion and education, the HBM, was used for this project because it best served the Hispanic population enrolled in a not-for profit Medi-Cal and Medicare health plan (Walsh, 1995). The use of evidence-based practice, peer-reviewed research articles, and detailed project management promoted positive outcomes for the targeted population.

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Appendix A: ESI Level 5 Patient Flow
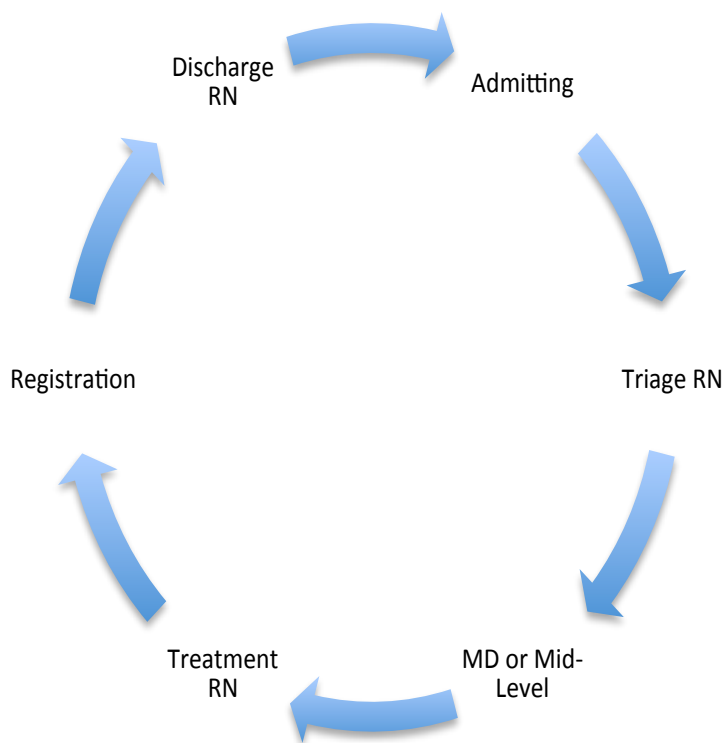
Appendix B: ESI Level 4 Patient Flow
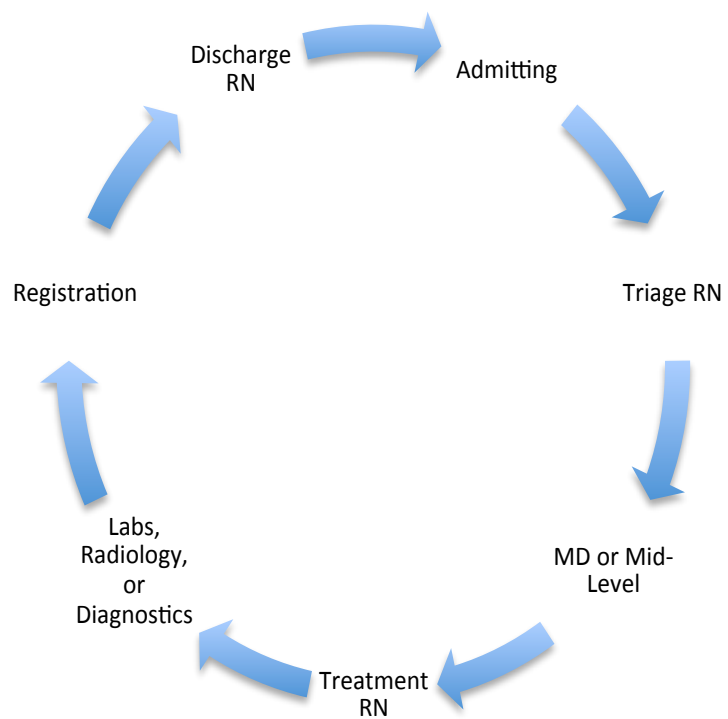
Appendix C: ESI Level 5 Resource Cost

ESI 5 Role/Title	Average Pay	Consequential Cost During Direct Patient Encounter	Direct Time Spent in Minutes
Admitting	$18.00	$2.16	5
Triage RN	$55.00	$6.60	5
MD/Mid-Level	$110.00	$13.20	5
Treatment RN	$55.00	$13.20	10
Registration	$18.00	$2.16	5
Discharge RN	$55.00	$19.80	15
Total	$311.00	$57.12	45

Appendix D: ESI Level 4 Resource Cost

ESI 4 Role/Title	Average Pay	Consequential Cost During Direct Patient Encounter	Direct Time Spent in Minutes
Admitting	$18.00	$2.16	5
Triage RN	$55.00	$6.60	5
MD/Mid-Level	$110.00	$13.20	5
Treatment RN	$55.00	$13.20	10
Phlebotomist	$18.00	$2.16	5
Radiology/ Diagnostic Tech	$30.00	$3.60	5
Registration	$18.00	$2.16	5
Discharge RN	$55.00	$19.80	15
Total	$359.00	$62.88	55

Appendix E: Expenses for 6-Month Trend

Expenses	January	February	March	April	May	June	Total
Salary/Wages /Benefits for 2.1 FTE's at $30/hour	$10,080.00	$10,080.00	$10,080.00	$10,080.00	$10,080.00	$10,080.00	$60,480.00
Supplies	$350.00	$350.00	$350.00	$350.00	$350.00	$350.00	$2,100.00
Marketing/ Media	$2,500.00	$1,500.00	$1,000.00	$500.00	$500.00	$500.00	$6,500.00
Cell Phone	$100.00	$100.00	$100.00	$100.00	$100.00	$100.00	$600.00
Travel/Food	$500.00	$500.00	$500.00	$500.00	$500.00	$500.00	$3,000.00
Misc. Overhead and Contingency	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$1,000.00	$6,000.00
	$14,530	$13,530	$13,030	$12,530	$12,530	$12,530	$78,680