

Understanding the Key Barriers that Prevent Routine Use of Health Care for Children in Santa Clara County

Multi-Method Research Project

Principal Investigator
Maria Jose Moraga
May 15, 2008



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Abstract

Emergency room (ER) usage for primary care is often an indicator of a lack of access for care. This study used quantitative and qualitative methodology to understand why Latino parents take their children to the ER for non-emergency reasons. There were 72 Latino parents who were randomly surveyed over a two week period. The parents surveyed were 18 years of age or older, had at least one child under the age of 18, and lived in Santa Clara County. To arrive to an answer there were three hypotheses that were tested. To see if the hypothesis were true, cross-tabulation with chi-square analysis was used on the corresponding variables of the three hypotheses. The results of all the tests show that there was no significant association between the variables that were tested. However, through descriptive statistics and content analysis there was some insightful information about the key barriers that prevent routine use of health care for children.

Introduction

In an attempt to improve routine use of health care for children, much attention at the national level has been focused on the issue of overcrowded emergency rooms (ER). Numerous studies have been conducted to understand the issue of ER overcrowding, but there has been little research on how to strategically improve routine use of health care for children. In Santa Clara County; there are many theories as to what the local barriers are that prevents routine use of health care for children, and lately there has been much interest in understanding what those specific barriers are.

According to a national research study, ER usage for primary care is often an indicator of a lack of access to care. Families without health care insurance or with limited provider choices use the ER for their primary care as well as for emergencies. Delaying care until care is urgent can have serious consequences for children, such as poorer health outcomes and increased health care costs. This study involves asking Latino parents “*Why do they take their children to the emergency room for non-emergency reasons?*” Understanding this issue can improve children’s health and increase their access to routine use of health care. The results of this study will be used to develop recommendations and action steps to address this issue better in Santa Clara County.

Literature Review

On the average, children in Santa Clara County are doing well compared to other counties in the state of California. However, many children, primarily low-income and Latino children are faring poorly in many areas of child well-being, such as routine access to health care. As mentioned previously, ER usage for primary care is often an indicator of a lack of access to care. Santa Clara County reported last year that 16.8% of children under 11 visited the

ER in the past 12 months (Santa Clara County Community Health Assessment 2007, 2007, p. 89). Numerous studies have strived to understand why the ER in the United States is overcrowded; however, the objective of the present study is to understand the key barriers that prevent routine use of health care in Santa Clara County and develop recommendations and actions steps to address those barriers.

In 2003, a group of researchers wanted to know why the ER was overcrowded in the United States. The objective of their study was to “examine the effect of health insurance status on children’s overall ER utilization and children’s ER utilization for non-urgent problems among the general pediatric population in the United States” (Hey, Frush, Liu, & Luo, 2003, p.314). In other words, they wanted to know if uninsured and publicly insured children are likely to visit the ER for urgent care compared to children who are privately insured. Their secondary source search found that there was no relationship between health insurance status and children’s overall ER use or children’s ER use for non-urgent problems at the national level. However, Santa Clara County reported in 2005 that “ without medical insurance, families often lack a regular health care provider or clinic, and are more likely to use emergency rooms as their primary source of medical treatment” (Santa Clara County Children’s Report: Key Indicators of Well-being 2005, 2005, p.17). Both studies provided valuable information, but in order to understand this issue better, researchers need to ask the parents directly why they take their children to the ER for non-emergency health care reasons.

The 2003 study indicated that status of health insurance is not a primary reason why parents take their children to the ER. It is good to know this because it allows other researchers to explore other areas that cause this simultaneous problem to occur. In 1979, three researchers studied why there was a large increase in patient usage of the ER at the Bronx Municipal

Hospital Center. They claimed that “part of the increase has been the substitution of the ER for primary care, particularly in inner cities” (Bell, Paneth & Stein, 1979, p. 486). Their research primarily focused on measuring the effect of comprehensive primary care programs on the use of emergency services by inner city populations. Two hundred patients participated in the study with 100 patients to be part of the experimental group (participants in the primary care program), and the other 100 to be part of the control group (non-participants of the primary care program). They discovered that the ER was used less by patients in the primary care program only when they had access to their service program providers.

The Bronx Municipal Hospital study found that a barrier for routine use of health care is accessibility. If a family has limited access to its primary health care providers, they are more likely to take the children to the ER for non-emergency health care reasons. As noted previously, the objective of the present study is to understand what are the key barriers that prevent routine use of health care for children in Santa Clara County? One area for investigation is to focus on why parents may feel more comfortable taking their children to the ER than to a community based health care clinic. One theory is that parents may feel the ER meets the medical needs of their children more than the community based health care clinics because the ER is open 24 hours, maybe less expensive, and its doctors are probably better than doctors in community clinics. The present study will investigate whether this theory is true or not, but it will also try to identify what are the other reasons why parents prefer the ER to be the primary health source for their children than a community based health care clinic.

At the Boston City Hospital, this study examined families who were bringing their children to the pediatric walk-in clinic, and they were randomly interviewed by a team of researchers over a 15-week period. The researchers wanted to know why these families were

using multiple health resources after the city built 26 neighborhood health centers (NHCs). They examined two issues in their study: 1) health utilization patterns of families using Pediatric Walk- In clinic at Boston City Hospital (BCH) and 2) why families had adopted stable or unstable patterns of care with their primary health source. The researchers discovered that “many inner-city families continue to use multiple services for their health care, and that, for most families, this pattern was marked by an absence of communication between health care sources” (Alpert, Druckman, Scherzer, 1980, p.294). Also, they learned that income and race did not account significantly for the health utilization type assigned to the family. The results of this study confirmed that more outreach and education are needed to address about the routine use of health care.

In 1995, another study also focused on inappropriate use of the pediatric emergency department by people seeking non-emergent care. The objective of this study was “to evaluate the health outcomes of managed care Medicaid children with non-emergent conditions who were not authorized to be seen in the Pediatric Emergency Department (PED) by their primary care provider” (Cross, Gadowski, Horton, Perkis & Stanton, 1995, p. 170). The researchers evaluated hundreds of cases that were denied access to PED utilization for non-emergent conditions in an inner city setting from 1992 to 1993. They discovered that two-hundred-sixteen children who were enrolled in the Maryland Access to Care (MAC) were denied authorization for a PED visit by their MAC providers during the case study period. The researchers believed that “this study supplies contradictory results regarding the safety versus the effectiveness of ER gatekeeping” (Cross, Gadowski, Horton, Perkis & Stanton, 1995, p.175). The researchers bring up an interesting point because it may be safer in the short run to divert patients out of the PED, but in the long run it may be dangerous for the patients because they are not getting the appropriate

necessary care in a timely manner. Overall, there are better and safer ways to reduce ER utilization, but it will require a strong collaboration between health care providers and the community at large.

Parents in Santa Clara County may not have enough information to understand the importance of preventative care. Children require ongoing preventive care, such as immunizations and routine screenings to maintain optimal health. In addition to the lack of information, a major problem for many parents in Santa Clara County is that English is not their first language. Santa Clara County has an extremely diverse population, and many people who live in that area deal with language barriers. One of the hypotheses for this study is to know whether language barriers is a reason why Latino parents take their children to the ER for care instead of a community based health care clinic. Non-English speaking parents may feel more comfortable taking their children to the ER because they know that someone will speak their first language there. As the Boston study mentioned previously, there is a lack of communication between health care providers and patients, and the purpose of this study is to know if this is true for Santa Clara County.

In San Francisco, a study evaluated whether referral to primary care settings would be clinically appropriate for and acceptable to patients waiting at the ER for non-emergency conditions. This 1993 study took place at San Francisco General Hospital, and the objective was to determine the extents to which “1) patients rely on the emergency department because of lack of alternative sources of care; 2) patients using the emergency department have clinical conditions that do not require specialized emergency services; 3) patients would be willing to use an alternative source of care if one were available; and 4) patients who already have a regular source of primary care use the emergency department in a more clinically appropriate manner

than do patients without a regular source of care” (Bindman, Grumbach & Keane,1993, p.372). The survey results confirmed that many poor and uninsured patients in San Francisco rely on San Francisco General Hospital emergency department as a substitute for primary care providers. Also, in the survey many patients mentioned “access barriers as their reason for seeking care in the emergency department, had conditions that could be managed in primary care facilities, and appeared willing to accept an alternative source of care” (Bindman, Grumbach & Keane, 1993, p. 375).

Many studies have investigated the elements of ER usage and access to primary care; however, the present study provides more current information about the access and routine use of health care. In 1996, a study was conducted to determine factors associated with regular use of the ER for sick care by U.S. children. Researchers used secondary data to understand this issue better, and the data used were the National Health Interview Survey (NHIS) and Area Resource File. The results of their study indicated that “in 1988, 3.4% of children younger than 18 years, or slightly more than 2 million children nationwide, reported using emergency departments as their usual sources of sick care” (Halfon, Newacheck, Wood & Peter, 1996, p. 30). Also, these results indicated that “children from poor, single-parent, African American families, urban areas, households headed by less educated adults were more likely to rely on emergency departments for sick care” (Halfon, Newacheck, Wood & Peter, 1996, p. 31). This study as well as the others confirmed again that underprivileged children are the ones who are primarily using the ER for non-emergency health care reasons.

The most important finding from the 1996 study was that “children who receive their routine health care in neighborhood health centers or other public clinics and those living in areas with fewer primary care physicians were also more likely to routinely use emergency

departments for sick care” (Halfon, Newacheck, Wood & Peter, 1996, p. 31). This finding is interesting because it brings up the issue that community based health clinics or other public clinics are causing parents to take their children to the ER for care seeing as they are not getting the services that they need at these facilities. The purpose of a community based health care clinic is for patients to receive routine care and other health care services. Based on the results of all the studies that were mentioned, it looks as there is a great need to understand the actual reasons why parents take their children to the ER. The ER is not an appropriate place for parents to take their children for non-emergency health care reasons; therefore, it is important to understand what these key barriers are that prevents parents to use the community based health care clinics for their children’s routine check ups.

A 1995 study, evaluated the potential for continuity of care following pediatric ER visits. This four week study examined two groups of neighborhood health center for children. The two groups involved were those who sought care at the pediatric ER and those who were walk-ins at the health centers. In this study, parents were asked to bring the child back again within six weeks at the health centers. According to the researchers, “the majority of children presenting to the pediatric emergency department who were judged by the health care provider to require follow-up at the patients health center within 6 weeks did return to their primary care site within 6-week period” (Alario, Block, Lewander, Linakis, Simon, & Vivier ,1995, p. 39). The results of this study are interesting because the majority of the parents brought their child to health center within six weeks regardless what their real intentions were. However, it would be significant to know what were the parents’ reasons for taking their child to the health center instead of the ER? One possibility could be that the parents realized the need for follow up care or maybe new health problems occurred for the child within the six weeks. At this point, observers can only

question the findings of this study, but the present study will look into the reasons why parents take their child to the ER instead of community based health care clinic.

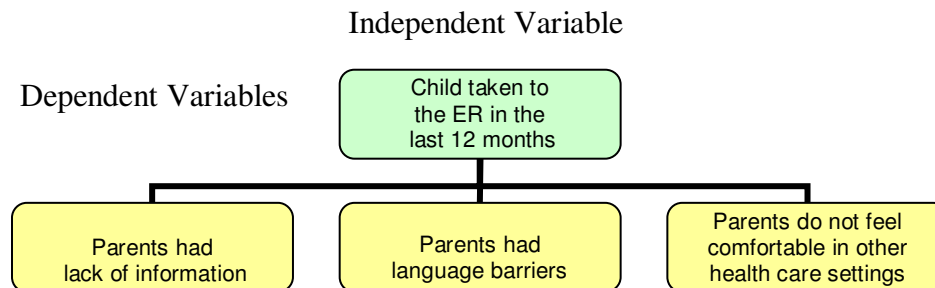
While 97% of children in Santa Clara County have been enrolled for health insurance, a socio-economic disparity exists when it comes to routine use of health care. According to the 2005 National Healthcare Disparities Report, attaining good access to care requires three steps: 1) gaining entry into the health care system 2) getting access to sites of care where patients can receive needed services and 3) finding providers who meet the needs of individual patients and with whom patients can develop a relationship based on mutual communication and trust (2005 National Healthcare Disparities Report, 2005, p. 87). The present study will focus on steps two and three in some degree because there has been no formal, local research done in order to understand what levers are needed to pull in Santa Clara County to improve access and routine use of health care.

National research has provided a number of barriers to health care access, and there are many theories as to what the local barriers are; this issue has not been studied in depth in Santa Clara County. On the basis of this literature review, little is known about how to strategically improve access for routine use of health care for children. In order to address this issue better in Santa Clara County, the community at large needs to be intentional in creating clear, sound, and measurable goals to improve the health care outcomes for children who live in this county.

Models

The present study is a theory before research model because there are many theories as to what the local barriers are that prevent routine use of health care for children in Santa Clara County. The models used in this study were schematic and symbolic. For this research, the most important model was symbolic because SPSS was used to illustrate the links and relationships

among the different variables. Also, the schematic model was used because visual symbols explain the important links and relationships between the different variables. Below there is an illustration of the schematic model used.



Hypothesis

The objective of this study is to understand the key barriers that prevent routine use of health care for children in Santa Clara County. The research question formulated was “*Why do Latino parents take their children to the ER for non-emergency reasons?*” In order to understand why the ER was used for non-emergency reasons, there were three hypotheses that were tested and they were **Hypothesis 1-** Latino parents without enough information are more likely to take their children to the ER than to a community based health care clinic for non-emergency reasons; **Hypothesis 2-** Latino parents who believe that the ER has more staff that speaks Spanish than a community based health care clinic are more likely to take their children to the ER than to a community based health care clinic; **Hypothesis 3-** Latino parents who do not feel comfortable in other health care settings are more likely to take their children to the ER than to a community based health care clinic.

Methodology & Research Design

This study used quantitative and qualitative methodology to understand the barriers of access to routine health care for children in Santa Clara County. In order to obtain quantitative information, original data were collected by using surveys. The Latino parents surveyed were 18

years of age or older, had at least one child under the age of 18 and lived in one of these four key county regions which were 1) East San Jose, 2) Downtown San Jose, 3) North County- Sunnyvale, and 4) South County- Gilroy. In the survey, Latino parents were asked about the symptoms that their children had when they took them to the ER in the last 12 months. This question was created to obtain qualitative information for this study.

As far as research design, this study does not have all the characteristics of an experimental design; therefore, a quasi-experimental design was used to carry out this study. The advantage of using this design is to investigate closely the relationships between the variables. Also, in the design there was no pretest involved because the research question was not designed to compare new findings to preexisting data. The purpose of this study is to know what the current barriers are to routine use of health care for children in Santa Clara County, and to obtain this information will only require a posttest evaluation. The quasi-experimental design was the most appropriate design for this study and the information gathered will prove it.

Data Collection & Instruments

In order to understand what the local needs are, data for this study was collected through in-person surveys. There were 72 Latino parents who were randomly surveyed over a two week period. The parents who were surveyed were 18 years of age or older, had at least one child under the age of 18, and lived in one of these four key county regions which were 1) East San Jose, 2) Downtown San Jose, 3) North County- Sunnyvale, and 4) South County- Gilroy. The survey was given out in Spanish and English to the parents who fit the above description. Latino parents who decided to participate in the survey were first informed that the survey was voluntarily and confidential. The principal investigator of this study distributed the surveys at

three Planned Parenthood clinics, one community center and one domestic violence agency during the last two weeks of February.

Santa Clara County is the fifth largest county in the state of California, but in order to collect data from the entire county the principal investigator needed a research team to help out with these efforts. Unfortunately, it was not possible to carry out a county wide survey because of limited resources. Based on these circumstances, the principal investigator was still able to collect data from the four key county regions mentioned above. The response rate was extremely good overall because approximately five people declined to participate in the survey out of 72. (See Appendix 1 for survey instrument and consent form)

Sampling Plan

In Santa Clara County, there is still socio-economic disparity when it comes to routine use of health care for Latino children. In order to improve the outcomes for these children, the target population for this study was the Latino community. The principal investigator of this study did not have access to the entire population, but through convenient sampling the investigator was able to reach out to the target population. The unit of analysis were Latino parents who were 18 years of age or older, had at least one child under the age of 18 and who lived in one of the four key county regions. The Santa Clara County Community Health Assessment 2007 report provided information about the sampling frame. The data in this report described which community based health care clinic in the county provides services to underserved populations. As it was mentioned before, the 72 surveys were distributed in these four key county regions: 1) East San Jose, 2) Downtown San Jose, 3) North County- Sunnyvale, and 4) South County- Gilroy with the goal of understanding the key barriers. The type of measurements that were used to measure this data was nominal and ordinal scales. By using

nominal and ordinal scales, the variables were categorized and important links and relationships between the different variables were made (See Appendix 2 for operational measures).

Analysis

For this study, cross-tabulation with chi-square analysis was used to analyze the quantitative data. This statistical test provided a wealth of information about the relationship between the variables. In addition to this statistical test, the study required some content analysis to analyze the qualitative data. These two analytical tools helped the principal investigator to decide whether the three hypotheses mentioned in beginning of this paper were true or not. For all the statistical test the level of confidence used was 95% (alpha = .05).

In the survey, there were three questions that addressed hypothesis 1. The focus of hypothesis 1 is to see if lack of information is a reason why Latino parents take their children to the ER than to a community based health care clinic. To test this hypothesis, there were two cross-tabulation with chi-square analysis performed. The summary of the cross-tabulation with chi-square analysis is shown in Table 1 (See Appendix 3 for entire results).

Table 1- Summary of Cross-tabulation with Chi-square Analysis

Test #	Variables Analyzed	Sig.	Alpha	Results
1	Aware of clinic & child taken to the ER in the last 12 months	.285	.05	.285 > .05
2	Knowing the location of the nearest clinic & child taken to the ER in the last 12 months	.236	.05	.236 > .05

For both tests, the results above show that the variables that were tested do not have a relationship. The sig-value for test #1 is .285 and the sig-value for test #2 is .236; thus, they are both greater than the alpha which is .05. Given these results the principal investigator cannot conclude that hypothesis 1 is true.

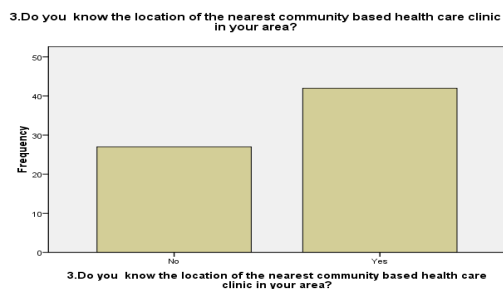
Even though, these two statistical tests showed that hypothesis 1 is not true there were still some interesting information that came from the descriptive statistics. Below are two bar

charts showing the response count of how many Latino parents were aware community based health care clinics and also how many of them knew the nearest location of a community clinic.

Figure 1.1- Aware of Clinics



Figure 1.2- Know the Location



In Figure 1.1, the frequency count for those who answered no for question 2 in the survey was 25 out of 67 or 37%. This means that 37% of the respondents are not aware that community based health care clinics can aide their children's health care needs. In Figure 1.2, the frequency count for those who answered no for question 3 in the survey was 27 out of 68 or 40%. This indicates that 40% of the respondents do not know the location of the nearest community based health care clinic. This demonstrates that there is a lack of communication between the Latino community and community based health clinics. But these observations do not suggest that they are using the ER instead.

Even more interesting, community based health care clinics seem to lack in the area of communicating to some individuals who know about the health care services that community clinics provide to children but do not know the location of the clinics. The previous conclusion was drawn by performing a cross-tabulation with chi-square analysis between questions 2 and 3 (See Appendix 3 for results). The cross-tabulation table shows that there are individuals who know the location of the clinics but do not know what kind of health care services the community clinic provides to children, 16 out of 67 or 24%. Essentially, 24% of the respondents could be misinformed.

In order to test hypothesis 2, there were three questions in the survey that helped the principal investigator to determine whether this hypothesis was true or not. The focus of hypothesis 2 is to see if Latino parents with language barriers are more likely to take their children to the ER than to a community based health care clinic. This hypothesis was tested by using the cross-tabulation with chi-square analysis. In Table 2, the results of the cross-tabulation with chi-square analysis are summarized (See Appendix 3 for entire results).

Table 2- Summary of Cross-tabulation with Chi-square Analysis

Test #	Variables Analyzed	Sig.	Alpha	Results
1	ER has more staff that speaks Spanish than clinics & child taken to the ER in the last 12 months	.285	.05	.285 > .05
2	Born in the United States & child went to the ER in the last 12 months	.031	.05	.031 < .05

The first test shows that there is no relationship between the variables because the sig-value is .285 which is greater than the .05 alpha. On the other hand, test #2 shows that there is a relationship between the variables since the sig-value is .031 and is less than alpha which is .05. It is difficult to determine if this hypothesis holds true because of lack of relationship agreement between the two tests. However, the data from the descriptive statistics provides insightful information about Latino parent's with language barriers.

Analyzing a cross-tabulation with chi-square analysis between question 4 and 19 in the survey was interesting because if you were not born in the United States then you are almost two times more likely to use a community based health clinic compared to those individuals that were born in this country. This could suggest that if you were born in the United States you do not have to worry about your immigration status. In other words, those individuals that were born in this country are less afraid or more informed to seek health care services from non-community based health care clinics because they have a higher possibility in speaking English and be insured. This last suggestion is also with agreement with the frequency table of ER has

more staff that speaks Spanish than clinics (See Appendix 3 for entire results). In the next page, Figure 2.1 and Table 2.1 show the response count of how many Latino parents disagree, agree and neither agree nor disagree with the statement that ER has more staff that speaks Spanish than community based health care clinics.

Figure 2.1

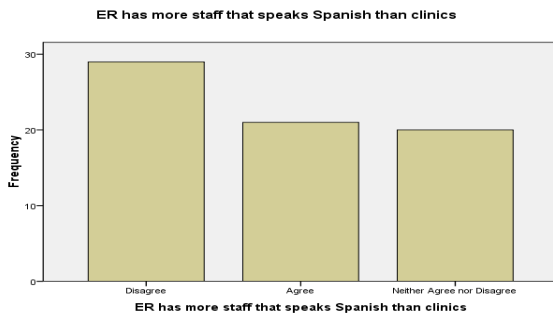


Table 2.1

ER has more staff that speaks Spanish than clinics	
Categories	Frequency
Disagree	29
Agree	21
Neither Agree nor Disagree	20
Blank	2
Total	72

The last hypothesis that was tested was hypothesis 3. The focus of hypothesis 3 is to know if Latino parents who do not feel comfortable in other health care settings are more likely to take their children to the ER than to a community based health care clinic. There were six questions that tested this hypothesis and the results of the cross-tabulation with chi-square analysis are summarized below in Table 3 (See Appendix 3 for entire results).

Table 3- Summary of Cross-tabulation with Chi-square Analysis

Test #	Variables Analyzed	Sig.	Alpha	Results
1	ER meets the medical needs of children & child taken to the ER in the last 12 months	*	*	*
2	ER has more staff that speaks Spanish & child went to the ER in the last 12 months	.285	.05	.285 > .05
3	Clinics are open at convenient times & child went to the ER in the last 12 months	.503	.05	.503 > .05
4	ER doctors are better than clinic doctors & child went to the ER in the last 12 months	.091	.05	.091 > .05
5	Clinics cost more money than ER & child went to the ER in the last 12 months	*	*	*

Tests which have an * for sig-value have an expected count less than the five for one of the cells

The results above show that tests #1 and #5 had an expected count less than five for one of the cells, which means that the cross-tabulation with chi-square analysis could not be

computed. However, the results for tests #2, #3, and #4 showed that there were no relationships between the variables that were tested. Since there were no correlations between the variables that were tested this means that hypothesis 3 cannot be accepted.

Even though, hypothesis 3 could not be accepted the descriptive statistics revealed important information about how parents feel about the ER and community based health care clinics. In the previous tests, the levels of comfortableness for Latino parents were measured in five ways: medical needs, language, time convenience, perception of doctor expertise and cost. Looking at the frequency tables of each of the measurements the participants believe the following: 59% agree that the ER meets the medical needs of children, 41% disagree that the ER has more staff that speaks Spanish than clinics, 57% agree that clinics are open at convenient times, 45% disagree that ER doctors are better than clinic doctors, 63% disagree that clinics cost more money than the ER

The previous percentages could suggest that Latino parents do not feel as comfortable with the ER as expected. Although 59% of Latino parents agree that the ER can meet the medical needs of their children the data suggests that possibly parents feel more comfortable using the services of the community based health care clinics. According to the results above, Latino parents disagree that ER fulfills their language needs, disagree that ER doctors are better than clinic doctors and disagree that clinics costs more than the ER. Looking at the data in a different way, Latino parents agree that clinics are open at convenient times, agree that the quality of doctors at the clinics are good and agree that clinics cost much less than the ER. All of these observations indicate that Latino parents feel more conformable using the services of the community based health care clinics than the ER. However, this observation should be read with caution since an amount of people did not have an opinion.

With regards to analyzing the qualitative data, content analysis was performed on question 7 in the survey. The focus of question 7 was to know what symptoms the child had when the parent took him/her to the ER. The way the data was organized was by creating two combination categories, which were emergency symptoms and non-emergency symptoms. Since the data can lose its meaning by using this method, the qualitative data must be put into its corresponding category with caution. The results of this analysis indicated that there were 15 combinations of symptoms that were considered to be emergency reasons. On the other hand, there were 14 combinations of symptoms that were considered to be non-emergency reasons.

The results from the content analysis raise some interesting questions like why did some Latino parents take their child to the ER for cold symptoms or a bloody nose or even stomach problems. According to the principal investigator, these symptoms are not emergency reasons which indicate that Latino parents do not have enough information to know the difference between emergency and non-emergency symptoms. Also, it can suggest that these Latino parents have limited access to their primary health care providers which could mean that they are more likely to take the children to the ER for non-emergency health care reasons. As it was stated before, these observations should be read with caution since an amount of people did not take their children to the ER in the last 12 months (See Appendix 4 for results on content analysis).

Conclusions

For this research project, there were several limitations thus the data should be interpreted with caution. First, only Latino parent's who were 18 years of age or older, had at least one child under the age of 18 and lived in one of the four key county regions were able to participate. Since other residents were not represented in the study, this factor could have threatened the external validity, which means that the information collected cannot be generalized. Second,

some of the variables had expected counts less than five for one of the cross-tabulation cells, which meant that cross-tabulation with chi-square analysis could not be computed. Given that this statistical test could not be used to test some of the variables it could have threatened the operational validity. Finally, the survey was self-administered, and there could be some inconsistencies in how questions were interpreted and answered, which could have threatened the internal validity.

Even though, there was no statistical significance to answer the research question. The descriptive statistics and content analysis provided insightful information about some of the key barriers that the Latino community experiences when accessing health care services in Santa Clara County. For instance, the survey results indicated that there is a lack of information between the Latino community and community based health care clinics. In order to achieve the best health care outcomes for children, the local government, community based health care clinics, and interest groups should work together to find better ways to inform the Latino community about health care services that are out there in the county. The data also brought up an interesting issue about the ER not having enough staff that speaks Spanish. This finding has implications for the Latino community at large because in a health care emergency the only source of care for this community is the ER. These language barriers need to be addressed at the county level so that the Latino community can get the appropriate care that they need.

In an emergency situation only, if the ER hires more bilingual staff then the quality of care for Latino children and families could improve at these facilities because there will be staff that can better help them with their health care needs. Ultimately, if families are more informed and know that they can communicate their health concerns to a health care provider that speaks their language then they will feel more comfortable at the health care facility and use their

services on a regular basis. Also, if families are more informed then they can make better decisions in the future regarding which health care facility to use when they have an emergency or a non-emergency situation. Santa Clara County needs to continue to increase their understanding of this issue so that the ER is only used for emergency reasons. This study provided a wealth of information about the key barriers and hopefully this new information is used to improve the health care outcomes for children who live in Santa Clara County.

Bibliography

- Alario, A., Block, S., Lewander, W., Linakis, J., Simon, P., & Vivier P., Is Continuity of Care Preserved in Children Who Utilize the Pediatric Emergency Department?. *Pediatrics*, 95 (1). Retrieved October 9, 2007, from Academic Search Premier database. (p. 39).
- Alpert, J., Druckman, R., & Scherzer, L. Care- Seeking Patterns of Families Using a Municipal Hospital Room. *Medical Care* [serial online.] March 1980; pp. 289-296. Available from: JSTOR database. Accessed October 8, 2007. (p.294).
- Applied Survey Research, Cross Systems Evaluation- County of Santa Clara, Kids in Common & Public Health Department- Santa Clara Valley & Hospital System. Santa Clara County Children's Report: Key Indicators of Well-being 2005. [online]. Available from Kids in Common. Accessed 2005. (p.17).
- Bolce, D., Martin, P., Oh, A., & Sills, E. Santa Clara County Community Assessment Report 2007. [harcopy]. Accessed 2007. (pp. 65, 88, 89).
- Cross, S., Gadomski, A., Horton, L., Perkis V., & Stanton, B., Diverting Managed Care Medicaid Patients From Pediatric Emergency Department Use. *Pediatrics*, 95 (2). Retrieved October 9, 2007, from Academic Search Premier database (p. 170).
- Grumbach, K., Keane, D., & Bindman, A. (1993, March). Primary Care and Public Emergency Department Overcrowding. *American Journal of Public Health*, 83(3), 372-378. Retrieved October 9, 2007, from Academic Search Premier database. (pp. 372, 375).
- Halfon, N., & Newacheck, P. (1996, July). Routine emergency department use for sick care by

children in the United States. *Pediatrics*, 98(1), 28. Retrieved October 9, 2007, from Academic Search Premier database (pp. 30, 31).

Luo, X., Liu, G., Frush, K., & Hey, L. (2003, August). Children's Health Insurance Status and Emergency Department Utilization in the United States. *Pediatrics*, 112(2), 314. Retrieved October 9, 2007, from Academic Search Premier database. (p. 314).

Paneth N, Bell D, & Stein R. Emergency Room Utilization in the First 15 Months of Life: A Randomized Study. *Pediatrics* [serial online]. March 1979; 63(3):486. Available from: Academic Search Premier database, Ipswich, MA. Accessed October 8, 2007. (p. 486).

UCLA Center for Health Policy Research. California Health Interview Survey 2005. [online]. July 2007. Available from UCLA Center for Health Policy Research. Accessed October 9, 2007.

U.S. Department of Health and Human Services. 2005 National Healthcare Disparities Report. [online]. December 2005. Available from Agency for Healthcare Research and Quality. Accessed October 8, 2007. (p.87).

Appendix 1

Understanding the Key Barriers that Prevent Routine Use of Health Care for Children in Santa Clara County

**Principal Investigator
Maria Jose Moraga**

Data collected from this confidential survey will be used for completion of a class project and may be used in the future towards a master's degree in the Department of Public Administration at San Francisco State University. The information gathered will be used for a class project and may be used for research purposes to better understand how we can improve children's health and increase their access to routine health care in Santa Clara County.

The survey questions will be about your health care experience in Santa Clara County. You have been invited to participate because you are parent and we think that you can help Mrs. Moraga understand why emergency rooms are more likely to be used than community based health care clinics.

You must be 18 years of age or older to participate. There are no risks or benefits to you in participating in this survey. You may choose to participate or not. You may answer only the questions you feel comfortable answering, and you may stop at any time. If you do not wish to participate, you may simply return the blank survey, with no penalty to yourself. If you do participate, **completion and return of the survey indicates your consent to the above conditions.**

Please do not put your name on this form. The survey should take approximately 10 minutes to complete. Any questions or concerns should be directed to the principal investigator, Maria Jose Moraga, at moraga_maria@yahoo.com or the student's advisor, Professor Sheldon Gen, at sgen@sfsu.edu.

Appendix 1

Understanding the Key Barriers that Prevent Routine Use of Health Care for Children in Santa Clara County

Please answer the following questions about your health care experience

1. Where do you usually take your child for their health care needs? *Select all that applies*

- Family doctor
- Emergency room
- Community based health care clinics
- Community/ family member who knows about health issues
- Other **Please explain:** _____

(Examples: Gardner Community Center, Arbor Free Clinic, Planned Parenthood Clinics, Franklin McKinley District Clinic, Overfelt Neighborhood Health Clinic, San Jose High School Neighborhood Health Clinic etc.)

2. Are you aware of the community based health care clinics that can help you with your child’s health care needs?

- Yes
- No

3. Do you know the location of the nearest community based health care clinic in your area? Yes No

3a. If yes, what is the name of the clinic? _____

4. Have you ever used a community based health care clinic? Yes No

4a. If yes, how often do you use the clinic? _____

4b. If yes, did the community based health care clinic staff assist you in Spanish? _____

5. What kind of services does your community based health care clinic provide? *Select all that applies*

- Immunizations
- Routine Physical Check Ups
- Prenatal Care
- Other **Please explain:** _____

6. Have you taken your child to the emergency room in the last 12 months? Yes No (If No, go to question 11)

7. Last time you took your child to the emergency room, what symptoms did he/she have?

8. Why did you take your child to the emergency room rather than another health care provider?

Select all that applies

- My child needed medical attention right away
- My doctor’s office or my clinic was closed
- Someone told me to bring my child to the emergency room
- The emergency rooms usually have more staff that speaks my first language
- Emergency rooms are open 24 hours
- Emergency room doctors are better than other health care providers
- Community based health care clinics are too expensive
- I don’t have another health care provider
- I don’t have healthcare insurance
- Other **Please explain:** _____

9. What day did you bring your child to the emergency room? *Select all that applies*

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday
- Sunday

10. What time of day did you bring your child to the emergency room?

- Morning
- Afternoon
- Evening
- Between midnight and 7 a.m.

Please mark the level of agreement with the following statements

11. Emergency rooms are more likely to meet the medical needs of my children.

Strongly Disagree					Strongly Agree
1	2	3	4	5	

12. Emergency rooms are more likely to have staff that speaks Spanish than community based health care clinics.

Strongly Disagree					Strongly Agree
1	2	3	4	5	

13. Community based health care clinics are open at convenient times to provide care for my children.

Strongly Disagree					Strongly Agree
1	2	3	4	5	

14. Emergency room doctors are better than doctors in community based health care clinic.

Strongly Disagree					Strongly Agree
1	2	3	4	5	

15. Community based health care clinics cost more money than emergency rooms.

Strongly Disagree					Strongly Agree
1	2	3	4	5	

16. Do your children have health care insurance?

- Yes, all of them do No, none of them do
 Some do/ Some don't I don't know

16a.If any of your children have health care insurance then what is the name of the insurance?

(Examples: Santa Clara County *Children's Health Initiative*, *Blue Shield*, *Blue Cross*, *Kaiser Permanente etc.*)

17. How many times have you moved in the last 4 years? _____

18. What is your current zip code? _____

19. Where you born in the United States? Yes No

- END OF SURVEY -

Thank you for taking the time to complete this survey

Appendix 2 - Table Summary of Operational Measures

This table describes which variables from the survey were used to test all three hypotheses.

Hypothesis	Variables	Operational Measures/ Variables Tested	Levels of Measurement
Testing Hypothesis 1	Knowing the location of the nearest clinic & child went to the ER in the last 12 months	Questions 3 & 6	Question 3: Nominal Question 6: Nominal
Testing Hypothesis 1	Aware of clinic & child went to the ER in the last 12 months	Questions 2 & 6	Question 2: Nominal Question 6: Nominal
Testing Hypothesis 2	child went to the ER in the last 12 months & ER staff speaks Spanish than clinic	Questions 6 & 12	Question 6: Nominal Question 12: Ordinal
Testing Hypothesis 2	child went to the ER in the last 12 months & born in the USA	Questions 6 & 19	Question 6: Nominal Question 19: Nominal
Testing Hypothesis 3	child went to the ER in the last 12 months & ER meets the medical needs of children	Questions 6 & 11	Question 6: Nominal Question 11: Ordinal
Testing Hypothesis 3	child went to the ER in the last 12 months & ER staff speaks Spanish than clinic	Question 6 & 12	Question 6: Nominal Question 12: Ordinal
Testing Hypothesis 3	child went to the ER in the last 12 months & clinics open at convenient times	Question 6 & 13	Question 6: Nominal Question 13: Ordinal
Testing Hypothesis 3	child went to the ER in the last 12 months & ER doctors are better than other clinic doctors	Questions 6 & 14	Question 6: Nominal Question 14: Ordinal
Testing Hypothesis 3	child went to the ER in the last 12 months & clinics cost more money than ER	Questions 6 & 15	Question 6: Nominal Question 15: Ordinal