



Report on the
Findings and Recommendations of

The Community Survey in Humboldt Park: Preventing Obesity and Improving Our Health

CO-OP HUMBOLDT PARK

Puerto Rican Cultural Center
Centro Sin Fronteras
Sinai Urban Health Institute
Consortium to Lower Obesity in Chicago Children

April 2006

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Introduction

Obesity is the number one risk factor for poor health in the United States. The country is fatter than it has ever been and the problem continues to grow. In the wake of obesity come diabetes, hypertension, heart disease, depression and arthritis and so much more. Compounding the resultant pain, suffering and death are the greatly increasing costs to society in terms of human loss and medical expenses.

In 2002-2003, the Sinai Urban Health Institute (SUHI) conducted a health survey of six Chicago communities, including Humboldt Park (HP). Obesity levels in this community were much worse than for the U.S., for both adults and children. As a result, the Otho S. A. Sprague Memorial Institute agreed to fund a community initiative in Humboldt Park to stem the obesity epidemic and improve the quality of life for the residents.

The project, named Community Organizing for Obesity Prevention in Humboldt Park, or CO-OP HP, is being led by the Puerto Rican Cultural Center (PRCC) and Centro Sin Fronteras (CSF). Technical support is being provided by the Consortium to Lower Obesity in Chicago Children (CLOCC) and SUHI. Other organizations participating in the project include Association House, Bickerdike Redevelopment Corporation, the McCormick-Tribune YMCA and others. Soon after getting organized, the group realized that more information about the obesity epidemic in Humboldt Park was needed. To address this need, a community survey was developed to obtain information that would help in the pursuit of improved health for the residents of HP.

Methods

After examining several existing surveys on this topic, speaking with community residents, and using information from focus groups, a 30-page survey was created. This survey included 109 questions about obesity-related issues for both adults and children. It was agreed that only families with children 2-12 years would be eligible to participate. Trained interviewers from PRCC and CSF conducted the interviews in either Spanish or English, depending upon the respondent's preference. The Institutional Review Board of Mount Sinai Hospital approved the

project. All respondents signed an informed consent form before participating. Respondents for this survey were considered to be a "convenience sample," because they were recruited from a variety of sources, instead of being randomly selected. Most people who were asked to participate did so; however, because there were no incentives and because the survey took approximately 60 minutes to complete, some people did refuse to participate. The survey was conducted during the summer of 2005. In total, 202 adult surveys and 189 child surveys were completed.

Results

The respondents were evenly divided between Puerto Rican and Mexican. There were important demographic and social differences among the two groups, with Mexicans in this sample being more likely to speak only Spanish, to have been in the United States a shorter amount of time, and to have fewer years of formal education. Most of the adult respondents (about 90%) were female.

A summary of the major obesity-related results are presented here. A variety of topics were given special consideration, including weight status and perceptions, nutrition, physical activity, access to healthy foods, availability of safe places to exercise, and other health-related issues.

Topic 1: Weight Status and Perceptions

A large proportion of adults and children in Humboldt Park were obese, even compared to the United States as a whole. For example, 34% of adult respondents were obese in HP compared with 22% in the U.S. and Chicago. The disparity for children was even worse -- 50% were obese compared with 14% in the U.S. as a whole. These extraordinary levels of obesity were remarkably consistent with those found for HP in the previous Sinai study and also in the Fiesta Boricua street surveys (which were conducted in conjunction with the 2004 and 2005 Labor Day weekend Fiesta Boricua Street Festivals), held annually in Humboldt Park. Furthermore, many people believed that they were the correct weight for their height even when they were overweight or obese. Perhaps even worse, the vast majority of caretakers of overweight or obese children perceived that their children were the correct weight.

Topic 2: Nutrition and Diet

Respondents were asked ten questions to assess their knowledge of healthy eating and reading food labels. The average respondent answered less than half of these questions correctly. For example, only about 20% of respondents were aware that it is recommended to eat five servings of fruits and vegetables each day, and only about 25% actually consumed that amount. Although many respondents understood the importance of maintaining a healthy diet, most also reported barriers to doing this. Among these barriers were too much stress and too little time to cook.

Several questions about children's diets were also asked. One very notable finding was that over half of the children consumed at least one soda or other sweetened beverage a day, and about half of these (or 25% overall) drank two or more such beverages. To place this into perspective, drinking a soda a day provides enough calories to gain about a pound a month. Additionally, more than half of parents provided their children with donuts, cookies, or other sweets each day. Respondent's attitudes toward improving their diets and those of their children were mixed.

Topic 3: Physical Activity and Sedentary Behavior

Respondents were asked several questions about physical activity and its benefits. On average, respondents answered approximately three-fourths of the questions correctly, demonstrating a good knowledge of the issues. Many, however, indicated several barriers that stood in their way of being adequately active, such as time, fatigue, lack of places to exercise, and embarrassment over their appearance. In the end, respondents were about as active as other Americans-which is not enough!

Questions about physical activity levels among children revealed that many are not very active. For example, the majority participated in only about two days of physical education (PE) a week in school, few played on an organized sports team, and nearly half spent more than three hours each day in front of a television, video game, or computer.

Topic 4: Healthy Environment

All health and wellness is partly a matter of individual choices and behaviors and partly a function of the community and larger society in which we live. We asked several questions to

assess the environment regarding obesity-related issues in the lives of these residents of Humboldt Park. Almost all residents (90%) reported that they lived near a park but approximately one-third stated that they did not feel safe using that area for exercise after nightfall and two-thirds said that they did not feel safe walking in their community.

In addition, a healthy environment means having access to adequate food. Specifically, being food secure means having access, at all times, to enough food for an active, healthy life for all household members. We asked questions about the affordability of needed foods and the quality of available foods. Amazingly, less than half of the respondents qualified as food secure.

Topic 5: Perceived Impact of Obesity on the Community

In general, respondents perceived obesity to be a serious problem in their community. Furthermore, the majority felt that the diets and physical activity levels of their neighbors were poor.

Topic 6: Breastfeeding

The American Academy of Pediatrics recommends breastfeeding babies for at least 6 months and, ideally, for one year. Relevant to this survey, studies have demonstrated that the longer an infant is breastfed, the less likely he or she is to become obese. Thus, several questions about breastfeeding were included in the survey. The majority of women who gave birth in the past five years reported that they initiated breastfeeding (68%). However, upon closer examination, Puerto Rican women were less likely to initiate breastfeeding compared to Mexican women (54% vs. 80%, respectively).

Topic 7: Health Related Quality of Life

It has been established that people's perceptions of their overall health is an accurate predictor of future health care needs, as well as subsequent mortality. We found that a large proportion of individuals in Humboldt Park rated their health as fair or poor, with substantial variation by nativity. For example, over half of individuals born in Mexico say that their health is fair or poor, compared to 38% of U.S.-born Mexican individuals and 41% of individuals born in Puerto Rico. On the other hand, the vast majority of respondents (92%) rated the health of their children to be excellent or very good.

Implications and Recommendations

This extensive report conjures up all of the many paradoxes that exist in the field of obesity prevention and reduction. On the one hand, maintaining a healthy weight is very simple – don't take in more calories than are expended. On the other hand, this is very difficult for most people. The data gathered in this comprehensive survey begins to illustrate why this is so challenging, especially in a community with limited resources. In the end, our goal must be to help our community residents become happy and healthy. In doing this, we will help our community become happy and healthy. Ultimately, a report like this is effective if we use the gathered information to improve the quality of life for the people of Humboldt Park. Here are some suggestions for actions we can take towards this goal. Most can be undertaken immediately – and we hope they will be.

1) Education about nutrition is essential. Residents of HP should be helped to understand how to read food labels and what the information means. We must also help individuals understand some basic “dos and don'ts” of nutrition: do drink lots of water, don't drink any soda; do eat healthy snacks, don't eat donuts, cakes, and cookies; do eat lots of fruits and vegetables, don't eat French fries, etc.

2) More physical activity is required for both adults and children. All different levels of activity are beneficial -- from walking to dancing to sports. We all must place great pressure on schools to reinstate physical education classes. In some schools, such classes meet only once a week, if at all. We cannot allow this to be taken from our children as activity improves both their physical and mental well-being. Similarly, we must also encourage adults and children to reduce their recreational screen time – television, video games, and computers. It is recommended that children spend less than two hours a day on these sedentary activities. We support that for adults as well.

3) It is important to educate people about what is a healthy weight for their height, so that they know when they weigh too much. In addition, almost no parents or caregivers of overweight children understood that their children weighed too much. Thus, they continued with the same habits that generated the problem in the first place. A better understanding of appropriate weight ranges, and of weight categories, will allow individuals to recognize when action is needed to preserve their (or their children's) health.

4) We must bring more grocery stores that sell nutritious food at affordable prices to vulnerable communities. These pursuits can only be achieved with a concerted community effort. We urge that such efforts be undertaken in conjunction with cooperative supermarket chains.

5) Mothers should be encouraged to initiate breastfeeding and to continue for at least 6 months and, if possible, for a year. At the same time, social barriers to breastfeeding, such as a lack of convivial public spaces, should be addressed.

Conclusion

In short, we call on all individuals in Humboldt Park to work toward the pursuit of these goals. At the same time, we understand that many of these issues are not simply a matter of personal choice. One cannot buy fresh fruits and vegetables if one does not have enough money or if there are no stores in the neighborhood that sell fresh produce. Children cannot get exercise in physical education classes if schools do not offer them. One will not jog through a park if one believes one might be

assaulted. Both personal and social responsibility must be addressed if we hope to successfully combat the obesity epidemic.

The motto we have established for ourselves is: “Con familias saludables, nuestra comunidad hecha pa'lante.” (“With healthy families, our community can move ahead.”) The purpose of CO-OP Humboldt Park is to help bring this motto to life. We hope this report contributes to that process.

Background

Obesity is one of the major health concerns confronting the United States. Nationally, the proportion of obese children has tripled since the 1970s with approximately 15% of all children falling into this category.¹ The situation among adults is also distressing. As many as 30% of U.S. adults are considered obese (BMI \geq 30) and an additional 35% are overweight (25<BMI<30).² Obesity in adults is associated with a long list of chronic diseases that include heart disease, stroke, high blood pressure, diabetes, arthritis and some cancers. Recent estimates place the annual direct medical costs of the epidemic at \$92.6 billion, and preventable deaths related to physical inactivity and poor diet are increasing.^{3,4}

However, national data are often inadequate to describe the magnitude of the obesity epidemic in some U.S. communities. Results of a 2002-2003 population survey describing the health of six community areas in Chicago found that half of the children were obese in Humboldt Park (46%) and West Town (51%), two communities on the west side of the city.⁵ Notably, this survey reported that close to 90% of the caretakers of these children did not recognize that their children were at an unhealthy weight.

The survey also found that 35% of adults in Humboldt Park were obese compared to 30% of adults in the US and 25% in Chicago.⁶ The prevalence of obesity did not differ significantly by race/ethnicity, sex, age, or national origin. Adult perceptions of their weight status were likewise inconsistent, in that 25% of adults in Humboldt Park who were either overweight or obese thought that they were the right weight or even underweight.

It is now recognized that obesity affects different communities in different ways and that efforts to address it must be tailored to the cultural and social norms of a local area. With such data, residents of Humboldt Park have recognized the need for a comprehensive obesity prevention program in their community. While there are many programs being developed on how to address obesity in adults and children, there are no established best practices which are proven to reduce and prevent obesity in minority communities. Thus, in an effort to address obesity

in Humboldt Park, a group of community leaders, residents, researchers and health care providers have partnered to find such solutions and determine how best to combat obesity in their community. In this context, a local initiative, guided by this group of community leaders was established: Community Organizing for Obesity Prevention in Humboldt Park or CO-OP HP.

CO-OP Humboldt Park

CO-OP Humboldt Park is a collaborative project designed to leverage community partnerships in planning and implementing sustainable programs to prevent and reduce obesity at the individual, child, family and community levels through coordinated community action. The project aims to develop creative solutions to combat the obesity epidemic and to promote healthy eating and activity. The philosophy of this project is that community members working at the local level are the ones who are best able to shape their lives and determine the help they need. Health here is seen not as one aspect of life but as all aspects of life combined. The people leading this project are thus seeking to create a "Community of Wellness," of which the struggle against obesity is an important, essential component.

CO-OP HP was initiated with the encouragement of James N. Alexander, Executive Director of the Otho S.A. Sprague Memorial Institute, which has funded this project for two years. Members of CO-OP HP team include the Puerto Rican Cultural Center (PRCC),⁷ Centro Sin Fronteras (CSF), the Consortium to Lower Obesity in Chicago Children (CLOCC),⁸ the Sinai Urban Health Institute (SUHI),⁹ Bickerdike Redevelopment Corporation,¹⁰ the McCormick-Tribune YMCA,¹¹ Association House,¹² and others.

As part of our efforts to understand how to facilitate the pursuit of a healthy lifestyle in the community, CO-OP HP designed The Community Survey of Humboldt Park. The survey was designed to learn more about important issues affecting eating and activity in the community in order to shape local programming by the partnership. The purpose of this report is to describe the findings from this survey.

Acknowledgements

The work described in this report could not have been done without the leadership of Jose Lopez, the Executive Director of the Puerto Rican Cultural Center, and Emma Lozano, the Executive Director of Centro Sin Fronteras. Their spirit, energy, and example of nitty gritty hard work kept us going. We would also like to thank Ami Shah, of the Sinai Urban Health Institute, for shaping

the survey and training all of the interviewers, and Matt Longjohn, Executive Director of the Consortium to Lower Obesity in Chicago Children, for his many ideas and connections. Finally, we wish to thank James N. Alexander, Executive Director of the Otho S.A. Sprague Memorial Institute, for funding this effort, attending our meetings, and providing wise counsel every step of the way.

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Developing the Survey

The Community Survey of Humboldt Park was developed by members of the CO-OP HP team and was guided by the results of several focus groups conducted in 2004. The team met over several months to select topics/questions for inclusion and determine question wording. The intention of the survey was to gather information that would allow for a better understanding of the relevant health issues in HP so that programs could be put in place to improve the situation.

With community input captured by the focus group discussions, the CO-OP HP team developed a 30-page survey containing 109 questions about weight and factors that influence weight. Specifically, the survey addressed individual behaviors, intentions towards losing weight, eating and cooking habits, grocery shopping habits, knowledge of healthy eating, physical activity and weight status, and more.

The goal was to interview 100 Puerto Rican and 100 Mexican families living in Humboldt Park. A specific “project area” was defined using the following boundaries: to the east, Western Ave., to the west, California Ave., to the south Augusta Ave and to the north, North Ave. This area is what is colloquially known as Humboldt Park. Only households with children age 2-12 years were eligible to participate in the survey. The caretaker of the selected child was asked questions about her/himself and the child.

The Interviewers

Humboldt Park community residents administered the survey. The Puerto Rican Cultural Center and Centro Sin Fronteras identified these residents from their existing community programs. All of these “peer interviewers” were fluent in Spanish. In total, 23 interviewers were trained to administer the survey.

Interviewers participated in a formal training session conducted by researchers from the Sinai Urban Health Institute. Centro Sin Fronteras translated the training into Spanish. The training session covered the following areas: recruitment, screening, informed consent, interview techniques and rules, an orientation to the survey (formatting, instruction, skip patterns, etc.), recording of responses and data editing. The issue of bias was

also stressed to the interviewers. For example, interviewers were briefed on how bias could be unknowingly introduced into the survey findings as a result of not being consistent in each interview, adding prompts when they are not provided, or not recording responses exactly as provided. Finally, the interviewers were instructed on how to properly handle situations in which the respondent indicates a wish to discontinue the survey. That is, they were instructed to discontinue the survey at once and assure the respondent that s/he does not have to continue. Interviewers were also provided the number of the Principle Investigator in case the respondent wanted to speak with someone. Four people called this number.

Administering the Survey

Surveys were administered in English and Spanish and took approximately 60 minutes to complete. Interviews were conducted between June – August 2005. They took place in homes, schools, and churches. Most people who were asked to participate did so but, because there were no incentives and because the survey took about 60 minutes to complete, some people did refuse. The generally high response rate for this survey is likely in large part to the use of “peer interviewers.”

Overall, 202 adult surveys (101 by CSF and 101 by PRCC) and 189 child surveys (93 by CSF and 96 by PRCC) were administered. All respondents were required to sign an informed consent before participating in this survey. The Institutional Review Board (IRB) of Mount Sinai Hospital approved this project.

Data Entry and Analysis

The database for the survey was constructed using Microsoft Access. The data entry forms were created with pre-programmed skip patterns and other quality checks to minimize the potential for data entry errors. Volunteers from the Puerto Rican Cultural Center and Centro Sin Fronteras were responsible for entering the data. An epidemiologist from SUHI monitored the database periodically to assure the integrity of the data. Epidemiologists from the Sinai Urban Health Institute cleaned and analyzed the data presented in this report. After the data were analyzed, they were initially presented to the CO-OP HP team in October 2005.

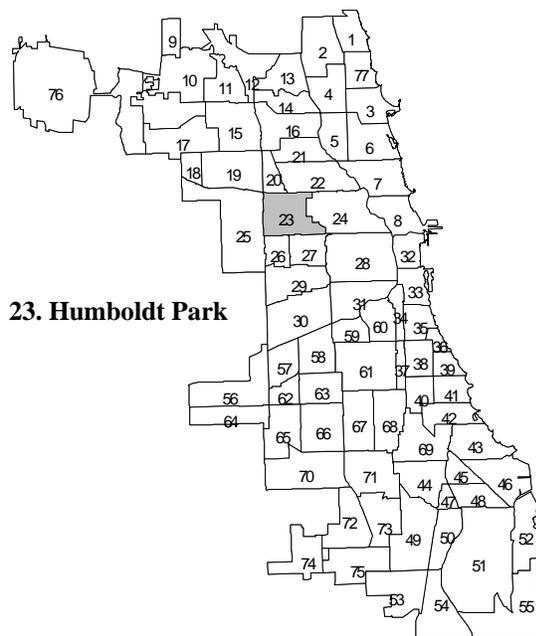
III. Sample Characteristics

Humboldt Park

Chicago is divided into 77 officially designated community areas (see Figure 1 below). Humboldt Park is one of the community areas on the northwest side of the city. According to the 2000 Census, there are 38,480 residents in the project area of which 18% are Black, 28% are Mexican, and 33% are Puerto Rican. The rest are other Hispanics (8%) and White (12%). The Mexican and Puerto Rican communities have historically resided in this area, while the Black population is currently expanding.

Humboldt Park is one of the poorest community areas in Chicago, with a 2000 median household income of \$29,000 (compared to \$39,000 for Chicago and \$42,000 for the US). Notably, 31% of its residents live below the poverty level.

Figure 1. Chicago Community Area Map and Location of Humboldt Park



Demographics

Table 1 presents the demographic characteristics of the adult survey sample. As can be seen, 88% of those interviewed were women, 73% had a high school education or less, 62% were married or living with someone in a committed relationship, 57% were born outside of the U.S. and 55% primarily spoke Spanish at home. The mean age was 34 years.

Table 1. Demographic Characteristics of Adult Survey Respondents

	Total Sample (n=202)^a
Gender	
Female	88%
Race/Ethnicity^b	
Mexican	51%
Puerto Rican	43%
Mexican & Puerto Rican	4%
Puerto Rican & Other Hispanic	<1%
Other Hispanic	1%
NH Black	<1%
Age	
Mean Age (yrs)	34
(Range)	(18-68)
Level of Education	
Less than High School	42%
HS Grad or GED	31%
More than HS	19%
College/Professional Degree	8%
Employment Status	
Employed	48%
Laid off/Unemployed	10%
Student	6%
Homemaker	34%
Retired	1%
Marital Status^b	
Married/Living with someone	62%
Divorced/Widowed/Separated	18%
Never Married	14%
Other	6%
Country of Birth	
United States	42%
Mexico	44%
Puerto Rico	14%
Other	2%
Years Lived in US^c	
Mean Number of Years	18
(Range)	(0.5-52)
Language Spoken at Home^b	
English	43%
Spanish	55%
Other	1%
Household Size	
Mean Household Size (people)	5
(Range)	(2-13)

^a Sample sizes vary slightly by variable

^b Some responses were not codable and are not presented, so percents do not add up to 100%

^c Limited to those who were not born in the US who provided this information

Table 2. Demographic Characteristics of Adult Survey Respondents by Ethnicity^a

	Mexican ^b	Puerto Rican ^c	p-value ^d
Gender			
Female	91%	86%	NS
Age			
Mean Age (yrs)	34	34	
(Range)	(18-60)	(18-68)	NS
Level of Education			
Less than High School	57%	31%	
HS Grad or GED	34%	26%	<0.0001
More than HS	7%	30%	
College/Professional Degree	2%	13%	
Employment Status^e			
Employed	39%	60%	
Laid off/Unemployed	4%	15%	
Student	1%	11%	<0.0001
Homemaker	54%	9%	
Retired	0%	2%	
Marital Status^e			
Married/Living with someone	79%	42%	
Divorced/Widowed/Separated	9%	29%	<0.0001
Never Married	7%	20%	
Other	4%	7%	
Country of Birth			
United States	16%	68%	
Mexico	83%	0%	<0.0001
Puerto Rico	1%	30%	
Other	1%	2%	
Years Lived in US^f			
Mean Number of Years	14	26	0.0001
(Range)	(0.5-32)	(0.5-52)	
Language Spoken at Home^e			
English	12%	77%	
Spanish	87%	22%	<0.0001
Both	1%	1%	
Household Size			
Mean Household Size (people)	5	4	0.04
(Range)	(2-8)	(2-13)	

^a Analyses by ethnicity limited to Mexican and Puerto Rican, as sample sizes for the remaining groups are too small

^b Mexican sample surveyed was 103, however sample size differs slightly by variable

^c Puerto Rican sample surveyed was 87, however sample size differs slightly by variable

^d p-value of characteristics between Mexicans and Puerto Ricans. Chi-Square/Fisher tests and t-tests used as appropriate. NS=not significant at p>0.05.

^e Some responses were not codable, so percents do not add up to 100%

^f Limited to foreign-born: Mexican sample (n=81) and Puerto Rican sample (n=27)

As evident in Table 2, Mexican and Puerto Rican adult respondents differed in many ways. Specifically the two groups differed with respect to:

- *Level of Education* - 43% of Puerto Rican respondents reported some education beyond high school compared to only 9% of Mexican respondents.
- *Employment Status* - 60% of Puerto Rican respondents reported they were employed versus only 39% of Mexican respondents. Additionally, a significant proportion of Mexican respondents reported they were homemakers (54%), compared to only 9% of Puerto Rican respondents.
- *Marital Status* - Mexican respondents were predominantly married/living with

someone in a committed relationship (79%), whereas less than half (42%) of Puerto Rican respondents were married/living with someone in a committed relationship.

- *Country of Birth* - Puerto Rican respondents were predominantly born in the U.S. (68%), while most Mexican respondents were born in Mexico (83%).
- *Years Lived in the U.S.* - Puerto Rican respondents born outside the U.S. have resided in the U.S. nearly twice as long as Mexican respondents born outside the U.S. (26 vs. 14 years, respectively).
- *Speak Mostly Spanish at Home* - the majority of Puerto Rican respondents reported speaking mostly English at home (77%) versus only 12% of Mexican respondents.
- *Household Size* - while Mexican respondents have a slightly larger household size compared to Puerto Rican respondents (4.8 vs. 4.3 people, respectively), both groups report a wide range in the number of people living in the household. Specifically, Mexican respondents reported that their household size is between 2 to 8 people and Puerto Rican respondents report their household size to be between 2 and 13 people.

These data show that the two groups differ in terms of education, employment status and level of acculturation. Puerto Rican respondents are more likely to have an education beyond high school, are more likely to be employed and appear to be more acculturated than their Mexican counterparts.

Nationally, most surveys and data about these and other Hispanic groups combine them all under the racial/ethnic group “Hispanic.” These data show that this practice may result in the loss of nuances that may be important in determining health for these groups. As a result, the majority of our survey findings are presented according to Puerto Rican or Mexican ethnicity.

Table 3 shows the demographic characteristics of the children. About half of the children were female (48%) and the average age was 6.5 years;

Table 3. Demographic Characteristics of Child Survey Respondents

	Total Sample^a
Gender	
Female	48%
Race/Ethnicity	
Mexican	42%
Puerto Rican	41%
Mexican & Puerto Rican	11%
Other Hispanic	4%
NH Black	1%
Other	<1%
Age	
Mean Age (yrs)	6.5
(Range)	(2-12)
Child’s Country of Birth	
United States	92%
Mexico	6%
Puerto Rico	2%
Parent’s Country of Birth	
United States	43%
Mexico	42%
Puerto Rico	13%
Other	2%
Language Spoken at Home	
English	37%
Spanish	55%
Both	8%
Respondent’s Relationship to the Child	
Mother	81%
Father	10%
Grandparent	7%
Other	2%

^a Total sample surveyed was 189, however sample sizes vary slightly by variable

42% of children were Mexican and 41% were Puerto Rican, either alone or in combination with some other group. There were more children that reported they were a mix of Mexican and Puerto Rican compared to adults (11% vs. 3.5%, respectively). Unlike their parents, the majority of the children were born in the U.S. (92%). The vast majority of survey respondents were the mothers of the children (81%).

Table 4 displays the characteristics of the children by ethnicity. As can be seen, there were significant differences between Mexican, Puerto Rican and Mexican/Puerto Rican children on language spoken at home, parent’s country of birth and respondent’s relationship to the children. Specifically, significantly more Mexican children’s parents were born outside of the U.S. and spoke Spanish at home compared to Puerto Rican and Mexican/Puerto Rican children. There

was also a difference in the relationship of the survey respondent to the child by ethnicity. Nearly all of the Mexican child surveys were completed by the mother (94%), compared to only 73% and 62% of Puerto Rican and

Mexican/Puerto Rican children, respectively. One possible explanation is that significantly more Mexican women self-identified as homemakers and thus may have been more likely to be at home.

Table 4. Demographic Characteristics of Child Survey Respondents by Ethnicity^a

	Mexican ^b	Puerto Rican ^c	Mexican & Puerto Rican ^d	p-value ^e
Gender				
Female	53%	40%	67%	NS
Age				
Mean Age (yrs)	6.6	6.4	5.9	NS
(Range)	(2-12)	(2-12)	(2-11)	
Child's Country of Birth				
Not born in U.S.	12%	8%	0%	NS
Parent's Country of Birth				
Not born in U.S.	87%	29%	29%	<0.0001
Language Spoken at Home				
English	8%	63%	76%	
Spanish	92%	21%	19%	<0.0001
Both	0%	16%	5%	
Respondent's Relationship w/ Child				
Mother	94%	73%	62%	
Father	1%	14%	24%	<0.0005
Other	5%	13%	14%	

^a Analyses by ethnicity limited to Mexican, Puerto Rican, and Mexican/Puerto Rican

^b Mexican sample was 79, however sample size differs slightly by variable

^c Puerto Rican sample was 77, however sample size differs slightly by variable

^d Mexican and Puerto Rican sample was 21, however sample size differs slightly by variable

^e P-value of characteristics between Mexicans and Puerto Ricans. Chi-Square/Fisher tests and t-tests used as appropriate. NS=not significant at p>0.05

Topic 1. Weight Status and Perceptions

Weight Status - Adults

Respondents were asked several questions related to weight status. Some questions were focused specifically on gathering information about the respondent’s weight status (i.e. body-mass index (BMI), and how respondents perceive their own weight status) and others were more general questions about the health implications of obesity.

In order to determine weight status, adult survey respondents were asked to report their height and weight. With these data, the body mass index (BMI) was calculated and respondents were classified based on this measure. Respondents were classified as “overweight” if their BMI was between 25 – 29.9 kg/m² and “obese” if their BMI was greater than or equal to 30 kg/m². As shown in Table 1.1 the majority of respondents surveyed were overweight (69%), and of them, about one-half were obese (34%). There were no significant differences by any demographic variables. This suggests that the problem of obesity in Humboldt Park is not isolated but rather one that affects all types of people in the community.

Figure 1.1 compares the prevalence of overweight and obesity among adults found on the Community Survey of Humboldt Park with data from three other surveys conducted in Humboldt Park and with Chicago and U.S. Behavioral and Risk Factor Surveillance Data (BRFSS). Estimates of the prevalence of overweight/obesity from the Fiesta Boricua surveys (conducted in 2004 and 2005) were based on measured height and weight, whereas the others were based on self-reported height and weight. Fiesta Boricua is a street festival held annually in Humboldt Park on the Sunday before Labor Day. It is attended by about 200,000 people each year and many politicians, often including the governor and the elected congressman.

The Fiesta Boricua surveys allowed for comparisons between estimates based on measured vs. reported height and weight. As can be seen, estimates of the prevalence of overweight/obesity were remarkably consistent (at about 70%) on all four surveys. That is, the proportion of adults in HP who are at an

Table 1.1. Proportion of Adult Respondents Who Are Overweight/Obese

	Overweight ^a	Obese ^b	p-value ^c
Total Sample (n=173)	35%	34%	NA
Ethnicity^d			
Puerto Rican	31%	41%	NS
Mexican	35%	31%	
Gender			
Male	39%	26%	NS
Female	34%	36%	
Age^e			
18-39 years	34%	35%	NS
40-59 years	43%	30%	
≥60 years	0%	50%	
Origin			
Born in U.S.	31%	38%	NS
Not born U.S.	38%	31%	
Language			
English	35%	35%	NS
Spanish	35%	34%	

^a Overweight corresponds to a BMI between 25 – 29.9

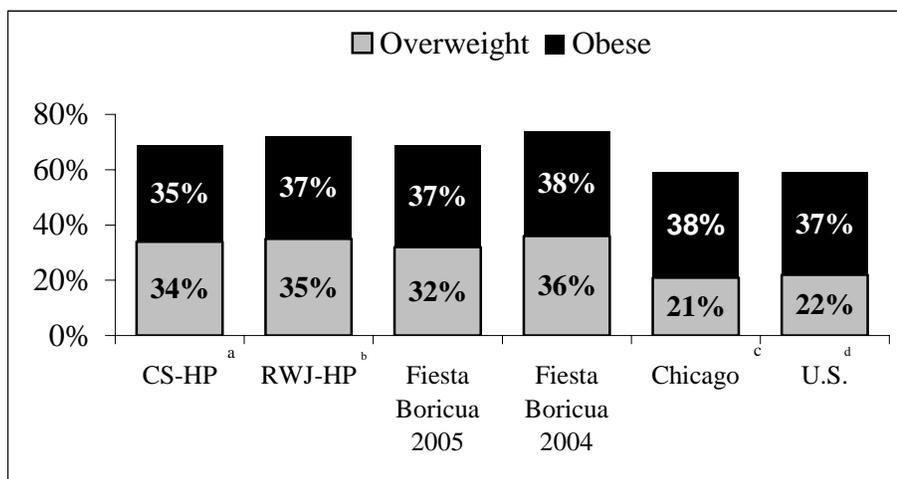
^b Obese corresponds to a BMI of 30 and greater

^c P-value compares difference in proportion under/normal weight, overweight and obese Chi-Square/Fisher tests used as appropriate. NA=“not applicable”

^d Analyses by ethnicity limited to Mexican and Puerto Rican

^e p-value compares 18-39 years with 40-59 years

Figure 1.1. Comparison of Adult Overweight and Obesity Found in the Community Survey of Humboldt Park with Other Data



Sources: ^a The Community Survey of Humboldt Park
^b Sinai's "Improving Community Health Survey;" results from Humboldt Park (HP)
^c Fiesta Boricua Street Surveys, 2004-2005
^d Behavioral Risk Factor and Surveillance Data, 2002

unhealthy weight is 10-15% higher than the percentage for Chicago as a whole, with the majority of the discrepancy being explained by a higher proportion of obese individuals.

Weight Status - Child

Parents were asked to report the height and weight of their child and their responses were used to calculate each child's BMI. BMI was then used to classify children as underweight, normal weight, overweight, or obese, according to the 2000 CDC age and gender-specific growth charts. For children, obesity is defined as having a BMI at or above the 95th percentile for age and gender, and overweight as a BMI of at least the 85th, but less than the 95th percentile.

Table 1.2 shows the proportion of children who are overweight and obese by several demographic characteristics. Overall, 64% of children fell into one of these categories, with the majority being classified as obese (50%). There were no significant differences by age, race/ethnicity or language spoken at home. That is, children aged 2-5 were equally as likely to be overweight or obese as children aged 6-12. This indicates that many children are overweight by the time they enter school. While there was not a significant difference in the prevalence of overweight or obesity by race/ethnicity, it is interesting to note that of the 57% of overweight/obese Mexican children, all of them fall into the obese category. In general, though not significant, children born

outside the U.S. and children whose parents were born outside the U.S. had a lower prevalence of overweight/obesity.

Figure 1.2 illustrates two vivid points. First, there is a remarkable consistency of findings for overweight/obesity among children in HP. Second, the obesity proportion there is about three times higher than it is nationally!

Weight Perceptions – Adult

Respondents were also asked how they perceive their weight status using the following question: "Do you consider yourself currently to be underweight, slightly underweight, about the right weight, slightly overweight or overweight?"

Figure 1.3 shows the proportion of adults who are either overweight or obese, but who perceived themselves to be under/normal weight. Almost one-third of overweight respondents misperceived their weight status, as did 10% of obese individuals. When we look at this question by various demographic characteristics, we see that there are differences in perceptions between Mexicans and Puerto Ricans (Table 1.3). More than two times as many Mexican respondents misperceived their weight status compared to Puerto Rican respondents. Also, overweight or obese respondents who speak Spanish as their primary language are more than three times as likely to perceive themselves as the right weight or underweight. Collectively, this evidence

Table 1.2. Proportion of Children Who Are Overweight or Obese in Humboldt Park

	Overweight ^a	Obese ^b	p-value ^c
Total Sample^d	14%	50%	NA
Age			
2-5 years	16%	52%	NS
6-12 years	14%	49%	
Ethnicity^e			
Mexican	0%	57%	NS
Puerto Rican	16%	51%	
Mexican & PR	22%	33%	
Child's Origin			
U.S. born	15%	51%	NS
Not in U.S. ^f	0%	33%	
Parent's Origin			
Born in U.S.	19%	53%	NS
Not born in U.S.	9%	43%	
Language			
English	19%	49%	
Spanish	13%	44%	NS
English & Spanish	0%	70%	

^a BMI of at least the 85th, but less than the 95th percentile for age and gender

^b BMI at or above the 95th percentile for age and gender

^c Chi-Square/Fisher used as appropriate. NS="not significant" (p>0.05). NA= "not applicable"

^d Missing height and/or weight information for 99 respondents

^e Analyses by ethnicity limited to Mexican, Puerto Rican and Mexican/Puerto Rican. "Mexican" includes children described only as Mexican or as mixed ethnicity. "Puerto Rican" includes children described only as PR or as mixed ethnicity. "Mexican & PR" includes children described as Mexican and PR with or without another ethnicity

^f n=6

suggests that less acculturated individuals may perceive weight status differently from those who have been more exposed to U.S. culture. These cultural perceptions must be considered when creating interventions. If one does not perceive their weight to be an issue, it is possible that they will be less likely to adopt behavior changes such as healthier eating and increased physical activity.

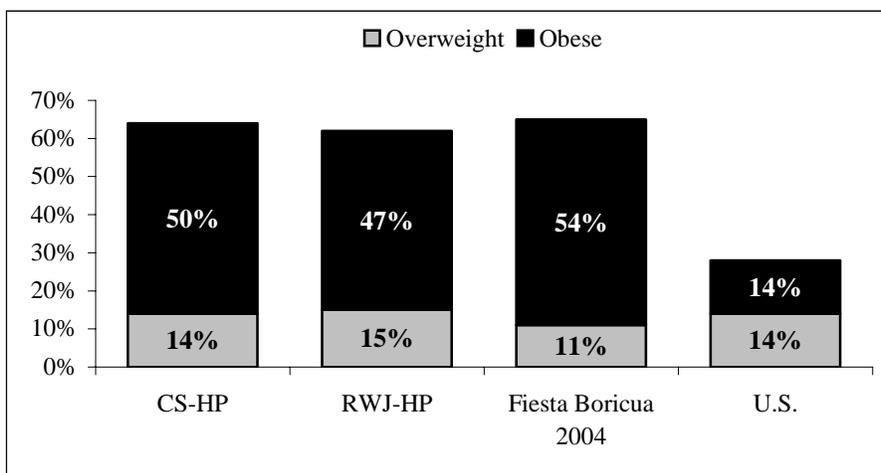
Weight Perceptions – Child

Caregivers were also asked whether they perceive their children to be "underweight, slightly underweight, about the right weight, slightly overweight or overweight." Figure 1.4 shows the proportion of caregivers who thought their overweight or obese child was under/normal weight. The data suggest that caregivers of overweight and obese children are usually not

aware that their child is overweight. Specifically, 85% of caregivers of overweight children and 58% of caregivers of obese children believed their child to be normal/underweight.

Thus, it seems caretakers overwhelmingly misjudge their children's weight and may be misinformed about the burden that excess weight places on their child's current and future health. Of course, many issues such as cultural practices and perceptions are involved and must be respected. Nonetheless, we have to find a way to educate caretakers about the optimal weight for their children and the impact of excess weight on health. The first step in solving a problem is realizing that there is one. Unless we can change perceptions, efforts to improve the situation will not be effective.

Figure 1.2. Comparison of Childhood Overweight and Obesity Found in the Community Survey of Humboldt Park with Other Data



Sources: ^a The Community Survey of Humboldt Park (all child respondents)
^b Sinai's "Improving Community Health Survey." Results from Humboldt Park
^c Fiesta Boricua Street Survey, 2004
^d National Health and Nutrition and Examination Survey (NHANES) 1999-2003

Table 1.3. Overweight/Obese Adults Who Perceive Themselves as Underweight or Normal Weight (n=118)

	% Perceive Underweight or Normal Weight	p-value ^a
Total Sample	20%	NA
Ethnicity^b		
Puerto Rican	12%	0.03
Mexican	28%	
Gender		
Male	40%	NS
Female	17%	
Age^c		
18-39 years	18%	NS
40-59 years	26%	
Origin		
Born in U.S.	15%	NS
Not born in U.S.	25%	
Language		
English	9%	0.03
Spanish	29%	

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b Chi-Square/Fisher as appropriate was used to assess significance of categorical variables. NA=not applicable. NS=not significant

^c The 2 overweight/obese adults over 60 were excluded from this analysis.

Knowledge of Health Implications of Obesity

In order to assess knowledge about the health implications of obesity, we asked a series of seven True/False questions. The seven statements and the proportion responding correctly are summarized in Table 1.4. Almost everyone knew that being overweight puts you at an increased risk for heart disease and diabetes (98% and 96%, respectively). In addition, 89% of respondents knew that losing weight would help to lower blood pressure and blood cholesterol. The other positive finding was that most respondents realize that overweight children are likely to become overweight adults.

However, findings around the other three statements were indicative of poor knowledge. For example:

- Only 42% knew that being overweight puts you at an increased risk for breast cancer.
- Slightly over half of respondents (52%) believed that being overweight puts you at an increased risk for pneumonia.
- Nearly half (46%) thought that being overweight puts you at an increased risk for lung cancer.

Table 1.5 summarizes differences in knowledge by weight status and other demographic characteristics. Respondents on average answered 5 of 7 questions correctly (see Table 1.4 for the

Figure 1.3. Overweight and Obese Adults Who Perceive Themselves as Under/Normal Weight (n=172)

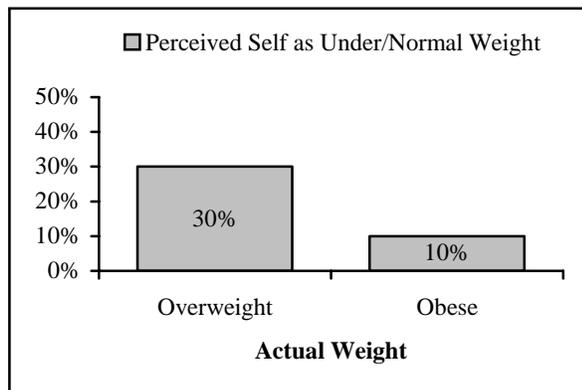
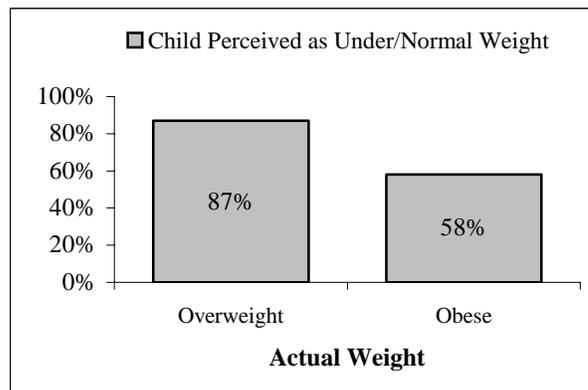


Figure 1.4. Caregivers of Overweight and Obese Children Who Perceive Their Child as Under/Normal Weight



wording of the questions). Those who were more educated (more than a HS education), were born in the U.S., reported English as their primary language, and Puerto Ricans had better knowledge about obesity and its relation to health risks than their less educated, foreign born, Mexican and Spanish-speaking counterparts.

There were also significant differences by weight status, with under/normal weight respondents displaying the highest level of knowledge about obesity and its relation to health. We should note,

however, that these differences, while significant, are quite small. For example, normal/underweight respondents answered less than one more question correctly compared to overweight or obese respondents. This suggests that the relationship between knowledge and weight status is complicated. That is, simply knowing about the dangers of being overweight/obese may not mean one is less likely to be overweight/obese. Finally, men had better knowledge about obesity and its relation to health compared to women, but we must note that the sample size for men is low.

Table 1.4. Knowledge About the Dangers of Obesity (n=202)

Statement	Correct Response	Percent Responding Correctly
Being overweight puts you at an increased risk for heart disease.	TRUE	98%
Being overweight puts you at an increased risk for diabetes.	TRUE	96%
If you are overweight, losing weight can help lower your blood pressure and blood cholesterol.	TRUE	89%
Overweight children are likely to become overweight adults.	TRUE	81%
Being overweight puts you at an increased risk for pneumonia.	FALSE	52%
Being overweight puts you at an increased risk for lung cancer.	FALSE	46%
Being overweight puts you at an increased risk for breast cancer.	TRUE	42%

Table 1.5. Knowledge About the Relationship Between Being Overweight and Health (n=202)

	Mean Number Correct ^a	p-value ^b
Total Sample	5.0	NA
Weight Status		
Under/Normal Weight	5.4	0.01
Overweight	4.8	
Obese	5.2	
Ethnicity^c		
Puerto Rican	5.3	< 0.0001
Mexican	4.7	
Gender		
Male	5.6	0.003
Female	5.0	
Age^d		
18-39 years	5.1	0.09
40-59 years	4.7	
Level of Education		
High school or less	4.9	0.009
More than high school	5.4	
Origin		
Born in U.S.	5.4	< 0.0001
Not born in U.S.	4.8	
Language		
English	5.4	< 0.0001
Spanish	4.7	

^a Average number of correct responses out of 7

^b Analyses by ethnicity limited to Mexican and Puerto Rican

^c Non-parametric tests were used to assess statistical significance (Wilcoxon/Kruskal-Wallis as appropriate). NA=not applicable

^d The 4 participants over 60 were excluded from this analysis

Topic 2. Diet and Nutrition

Knowledge

Respondents were asked 10 questions to assess their knowledge of healthy eating and ability to read food labels. A knowledge score was created by summing the number of correctly answered questions and dividing by 10 (the maximum possible) and turning this into a percentage. The questions, along with the correct response and the proportion that responded correctly, are summarized in Table 2.1.

The average respondent answered less than half correct (48%, range=0-90%) (data not shown). While it was encouraging that the majority of respondents knew that water was the healthiest beverage (93%), that monitoring sodium is important if you have high blood pressure (90%), and that oatmeal with raisins is the healthiest breakfast option (from a list of 4 choices) (80%), less than half of the respondents answered the remaining questions correctly. For example, when asked: “If someone finished this entire can of Coke, how many calories will they have consumed?” only 20% answered correctly. Of those who answered incorrectly, 63% said 100

calories, meaning they did not realize that there were two servings in the can (data not shown). Secondly, 48% answered that Coke would be unhealthy for someone trying to avoid salt in their diet, even though Coke only provides 1% of the recommended daily intake of sodium. However, the wording of this question was not ideal, as we used the word “avoid” which could imply wanting to consume none. Finally, it should be noted that while the majority of respondents answered the questions about daily caloric intake incorrectly, as many as 35% of women and 71% of men did guess a lower rather than higher amount than the correct response.

There were also statistically significant differences in the proportion responding correctly between Mexicans and Puerto Ricans and by level of education and language primarily spoken at home. Those who were more educated (more than a HS education), reported speaking mostly English at home, and Puerto Ricans had better knowledge about healthy eating and reading food labels than their less educated, Mexican, and Spanish-speaking counterparts (data not shown).

Table 2.1. Knowledge of Healthy Eating and Reading Food Labels (n=202)

Question	Correct Response	% Responding Correctly
Which of the following is the healthiest drink?	Water	93%
Sodium (salt) is important to monitor if you have high blood pressure. True or False?	True	90%
Which of the following is the healthiest breakfast choice?	Oatmeal with raisins	80%
About how large is one serving of meat?	A deck of cards	49%
Would one serving of this drink (Coke) be unhealthy for people trying to avoid salt in their diet?	No	45%
About how many calories should an average healthy woman who is not trying to gain or lose weight consume or eat in an average day (asked only of women, n=176)?	1500-2000	39%
How many grams of total fat should an average healthy adult eat/consume per day?	40-70 grams	24%
If you are going to cook with oil or fat, which is the healthiest choice?	Canola oil	21%
How many servings of fruits and vegetables do you think it is recommended that you eat in a day?	5 or more	20%
If someone finished this entire can of Coke, how many calories will they have consumed?	200	20%
About how many calories should an average healthy man who is not trying to gain or lose weight consume or eat in an average day (asked only of men, n=25)?	2300-2700	8%

We also assessed respondents’ knowledge about recommendations for fruit and vegetable consumption. According to the dietary guidelines put out by the United States Dietary Association and recommendations made by the American Heart and Cancer Associations, it is recommended that Americans eat at least five servings of fruits and vegetables daily. Despite efforts to disseminate these guidelines only 19% of Americans are even aware of the recommendation.¹ It seems likely that if people are not aware of such recommendations, they will not be able meet them.

In order to assess respondents’ knowledge of this recommendation, we asked the following question: “The Surgeon General recommends that we eat a certain number of fruits and vegetables every day to be healthy. How many servings of fruits and vegetables do you think it is recommended that you eat in a day?” Unfortunately, only about 20% of survey respondents knew that five servings was the correct answer. However, the level of awareness of our survey respondents is nearly identical to the average American. There was no difference in knowledge of the recommendation between Mexicans or Puerto Ricans or by weight status.

Attitudes

In order to assess perceptions about diet and barriers to healthier eating, we asked respondents whether they strongly agree, agree, disagree or strongly disagree with various statements.

Table 2.2 shows the proportion of respondents reporting that they “strongly agree” or “agree” with these statements. It is important to note that the majority of respondents (70%) felt that given their schedule it is impossible to eat healthily. It also seems that stress may be playing a large role in terms of weight management. As many as 63% of respondents agreed that there was too much stress in their lives to effectively manage their weight. This suggests that maintaining one’s weight may not seem as important as other life stressors for many survey respondents. However, we should note that 94% of adults indicated that diet and nutrition are “very/somewhat” important to them and that Mexican respondents were significantly more likely to indicate that diet and nutrition are “very/somewhat” important to them than were PR respondents (98% vs. 88%; p<0.05) (data not shown). Thus, respondents report that a

Table 2.2. Perceptions About Diet and Barriers to Healthy Eating

Statement	Strongly Agree or Agree
With my schedule, it’s impossible to eat right	70%
There’s too much stress in my life for me to effectively manage my weight.	63%
I eat more when I’m alone than when I eat around others.	51%
When I’ve done something good, I reward myself with food.	38%
I eat more on the weekends.	64%
If I’m craving food, my body must need it.	57%
Some people are meant to be overweight.	44%

exist that might make it difficult to actually adopt a healthier diet. Furthermore, there were no differences in the proportion of adults that agreed to the above statements by weight status. Thus, participants have similar perceptions about diet and barriers to healthy eating whether they are overweight or not.

Behavior - Adults

In addition to knowledge about healthy eating, we asked questions about respondents’ fruit and vegetable consumption. We then classified respondents as either having met the recommendation, meaning they reported eating at least 5 servings of fruits and/or vegetables a day, or not.

Only about a quarter of respondents met the recommendation (Figure 2.1). However, this is very similar to what has been found for the U.S. as a whole and Chicago (23% and 22%, respectively). More Mexican respondents reported meeting the recommendation compared to Puerto Ricans, however the difference was not statistically significant (27% vs. 18%, p=0.15). There were no significant differences in the proportion meeting the 5-a-day recommendation by weight status, or any other characteristic.

Table 2.3 summarizes the average consumption of fruits and vegetables per day. Also included in this table is the average intake of each of the components that make up “total” fruit and vegetable servings per day. On average,

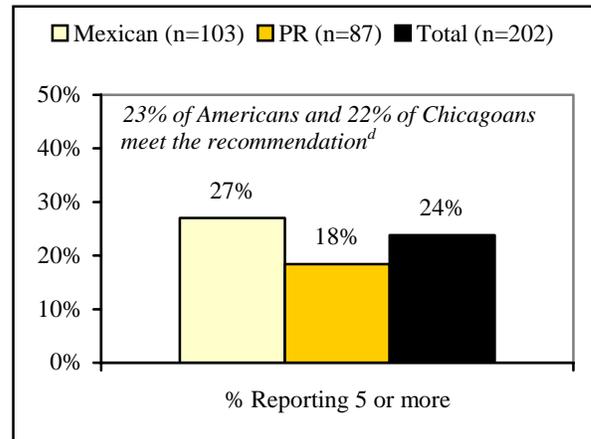
respondents consume about 3 servings of fruits and vegetables per day. When we look at this by the individual, we see that the majority of the total is from fruit and fruit juice rather than from vegetables (2.10 vs. 0.61). Mexican respondents consume significantly more fruit compared to Puerto Ricans (1.22 vs. 0.85, $p=0.021$). There were no other significant differences in fruit and vegetables consumption by ethnicity.

The United States Dietary Association (USDA) recommends that we consume 3 cups per day of fat-free or low-fat milk or equivalent milk products per day. So we asked respondents about milk consumption, specifically how often they drink whole milk, 2% milk or fat free/1% milk. The way we asked this question did not allow us to determine if respondents are meeting this goal, but we were able to assess if they are choosing nonfat/low fat milk products. We found that the majority of respondents that drink milk one or more times per week choose either whole milk (24%), 2% milk (36%) or a combination of whole and 2% milk (10%). Only 7% are consuming 1% or non-fat milk (data not shown). Fortunately, educating people in Humboldt Park about choosing fat free or low fat milk versus whole milk or 2% milk could be an easy step to lower fat and calorie intake for many people.

Behavior - Child

We also asked questions about children’s fruit and vegetable consumption. Specifically, parents were asked how many servings of fruits, 100% fruit juices, vegetables, and potatoes their child ate on the previous day. These were then used to determine whether children met the 5-a-day fruit and vegetable recommendation. About 40% of children overall met the 5-a-day fruit and

Figure 2.1. Proportion Meeting 5-A-Day Fruit and Vegetable Recommendation Overall^a and by Ethnicity^{bc}



^a Sums number of servings of fruit (including 100% fruit juice) and vegetables (including potatoes, but not fried potatoes). The questions were modified slightly from the BRFSS 2003

^b Analyses by ethnicity limited to Mexican and Puerto Rican

^c $p=0.15$

^d U.S. Data is from BRFSS 2003; Chicago Data is from BRFSS 2002

vegetable recommendation (data not shown). There were no differences between Mexican and Puerto Rican children or by age or weight status. Also of interest is that parents reported higher fruit and vegetable consumption among their children than for themselves. Finally, when comparing our findings to those of the California Health Interview Survey, fruit and vegetable consumption among our sample is similar (40% vs. 44%, respectively).

We also asked caregivers to report how often their child consumes other foods per day like milk, soda, fast food or high sugar foods (i.e. cookies,

Table 2.3. Average Servings of Total Fruits and Vegetables A Day Overall and by Ethnicity^a

	Total Sample ^b	Mexican ^c	Puerto Rican ^d	p-value ^e
Total Fruit and Vegetables	3.38	3.57	3.08	NS
Fruit, not including juice	1.04	1.22	0.85	0.021
100% fruit juice	1.06	1.07	0.97	NS
Vegetables, not including potatoes	0.61	0.69	0.55	NS
Potatoes, not fried	0.23	0.23	0.25	NS

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b Due to missing values, sample size ranges from 187-195

^c Due to missing values, sample size ranges from 92-97

^d Due to missing values, sample size ranges from 83-86

^e T-tests were used to assess statistical significance.; NS=not significant

Table 2.4. Average Servings of Different Foods Per Day for Children, Overall and by Ethnicity^a

	Total Sample ^b	Mexican ^c	Puerto Rican ^d	p-value ^e
Milk	2.3	2.4	2.3	NS
Soda	0.9	1.0	0.9	NS
100% Fruit Juice	1.5	1.5	1.5	NS
Fruit (not including juice)	1.5	1.8	1.4	0.012
Vegetables (not including potatoes)	0.9	1.1	0.6	<0.001
Total Fruits & Vegetables	4.0	4.4	3.8	0.091
Potatoes (fried)	0.3	0.4	0.3	NS
Potatoes (not fried)	0.2	0.2	0.3	NS
Fast Food	0.4	0.3	0.4	NS
High Sugar Foods^f	1.2	0.9	1.4	0.006

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b Due to missing values, sample size ranges from 176-189

^c “Mexican” includes Mexican or mixed ethnicity children. Due to missing values, sample size ranges from 70-78

^d “Puerto Rican” includes PR or mixed ethnicity children. Due to missing values, sample size ranges from 74-77

^e T-tests were used to assess statistical significance; NS=not significant

^f Includes cookies, doughnuts, pastries, cakes, popsicles, and other sweets

pastries, doughnuts). Table 2.4 shows the average servings of these foods and others eaten per day by children, as estimated by their parents. As can be seen, on average parents report that their children are consuming 2.3 servings of dairy daily. According to the National Academy of Sciences children are supposed to consume 3-4 servings of dairy daily to get adequate calcium. According to our survey, neither Mexican nor Puerto Rican children are meeting this goal. Also of interest is that Mexican children are consuming significantly more fruit and vegetables and fewer high sugar foods compared to Puerto Rican children.

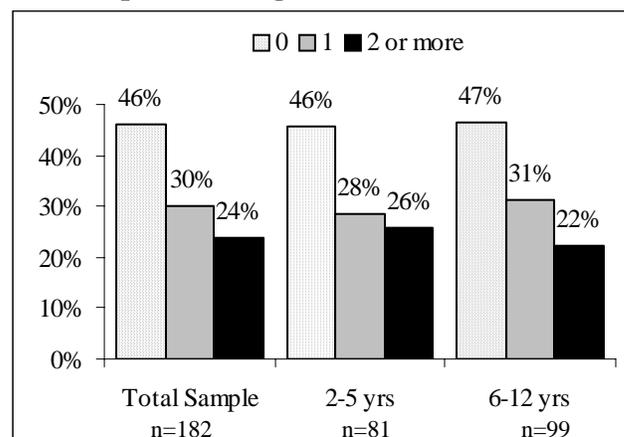
We also assessed the amount of soda and other sweetened beverages (such as fruit punch or Sunny Delight) consumed by children in Humboldt Park in an average day. Figure 2.2 shows that over half of children consume at least one serving and about 25% drink two or more servings of soda or other sweetened beverages per day. There were no differences between children 2 to 5 and children 6 to 12. This is an opportunity for prevention given that soda and sweetened beverage consumption has been associated with obesity.^{2,3}

Table 2.5 shows the proportion of parents that give their children various foods as a snack “often” or “sometimes”. Some of these foods are considered healthy snacks and others are not. It was encouraging to see that 93% of parents gave their children fresh fruit and 73% offered their

children fresh vegetables often or sometimes as a snack. Unfortunately parents reported offering several unhealthy snacks to their children. For example, more than half of parents reported feeding their child donuts/munchkins, cookies and ice cream often or sometimes as a snack.

There were several differences by ethnicity. For example, Mexican caregivers were significantly more likely to offer their child fresh fruit, vegetables and cheese as a snack compared to Puerto Rican caregivers. On the other hand they were also more likely to give their child doughnuts/munchkins (59% vs. 39%). In terms of other unhealthy snacks, Puerto Rican caregivers were more likely to offer their child cookies

Figure 2.2. Soda and Sweetened Beverage Consumption^a among Children



^a Excluding 100% juice, p>0.05

Table 2.5. How Often Caregivers Give Their Child Various Snacks, Overall and by Ethnicity^{ab}

	% Often	% Sometimes	p-value ^c
Doughnuts			
Mexican	0	59	<0.001
PR	7	33	
<i>Total</i>	3	47	
Crackers			
Mexican	9	53	0.019
PR	23	55	
<i>Total</i>	16	57	
Cheese			
Mexican	43	49	<0.001
PR	40	29	
<i>Total</i>	39	42	
Cookies			
Mexican	8	53	0.017
PR	25	45	
<i>Total</i>	17	51	
Popcorn			
Mexican	4	50	0.093
PR	13	51	
<i>Total</i>	9	48	
Canned fruit			
Mexican	6	60	NS
PR	16	47	
<i>Total</i>	13	51	
Ice Cream			
Mexican	11	61	NS
PR	18	51	
<i>Total</i>	16	56	
Fresh Fruit			
Mexican	74	23	0.004
PR	51	38	
<i>Total</i>	64	29	
Fresh Vegetables			
Mexican	65	22	<0.0001
PR	26	33	
<i>Total</i>	45	28	

^a Analyses by ethnicity limited to Mexican and Puerto. "Mexican" includes Mexican or mixed ethnicity children. "Puerto Rican" includes PR or mixed ethnicity children.

^b Due to missing values, sample size ranges from 152-155 for Mexican and Puerto Rican and 182-187 for the total sample.

^c P-value comparing % Often, % Sometimes and % Hardly Ever/Never, using Chi-Square or Fisher tests, as appropriate. NS=not significant at p>0.05

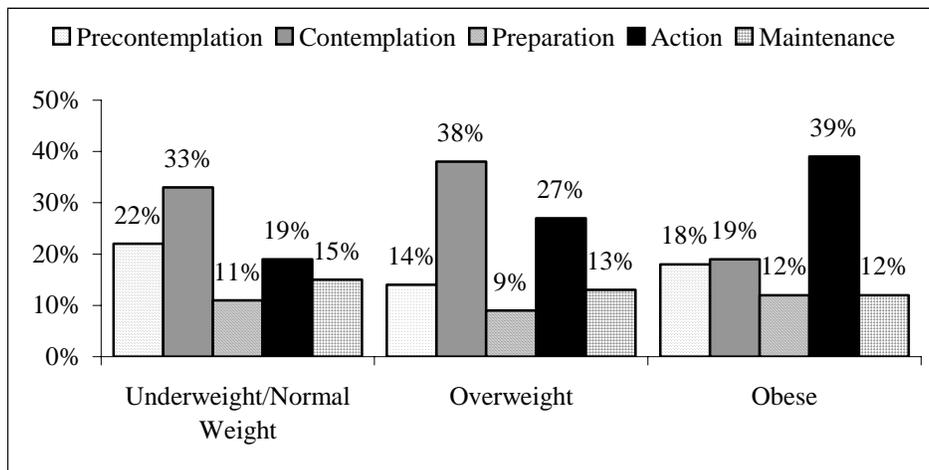
compared to Mexicans and both groups were equally likely to give ice cream.

Diet Stages of Change - Adult

When talking about behavior change interventions, much interest has been placed on the "stages of change model" that is employed in other behavioral health areas such as smoking.⁴ The idea is that patients/people are in a process of

change, so when choosing a mode of intervention, "one size doesn't fit all."^{4,5} By identifying one's position in the stage of change process we can tailor interventions to enhance success. The Stages of Change Model suggests that when changing behavior most individuals gradually move from being uninterested, unaware or unwilling to make a change (pre-contemplation), to considering a change (contemplation), to

Figure 2.3. Diet Stages of Change by Weight Status (n=167)^a



^ap=0.35

deciding and preparing to make a change (preparation) and finally to implementing and continuing to work to make this change life-long (action and maintenance). Thus we thought it was important to assess where respondents felt they were currently on this continuum of change in terms of diet. We also assessed respondents' stage of change for physical activity (see Figure 2.10, page 24.) Respondents were asked: "Please pick the one that best describes the way you eat."

- "I am not currently modifying my eating habits to be healthier and am not thinking of doing so in the coming month" (PRE-CONTEMPLATION)
- "I am not currently modifying my eating habits to be healthier, but I have thought about dietary changes to do so." (CONTEMPLATION)
- "I am not currently modifying my eating habits to be healthier, but I plan to do so within the next month." (PREPARATION)
- "I am currently modifying my eating habits to be healthier but have only been doing so for the past six months or less." (ACTION)
- "I am currently maintaining a change in my eating habits to be healthier and have been doing so for 7 or more months." (MAINTENANCE)

Data show that quite a few of those who are obese already indicate that they are modifying their eating habits to be healthier, meaning they are either in the action or maintenance phase (51%); this means half are not. Furthermore, even fewer of those who are overweight indicate that they are in the action phase. In fact, 52% of overweight respondents and 37% of obese respondents are not even preparing to make changes to their diet to be healthier. Thus, it is important that interventions consider people's readiness to make a change in their diet.

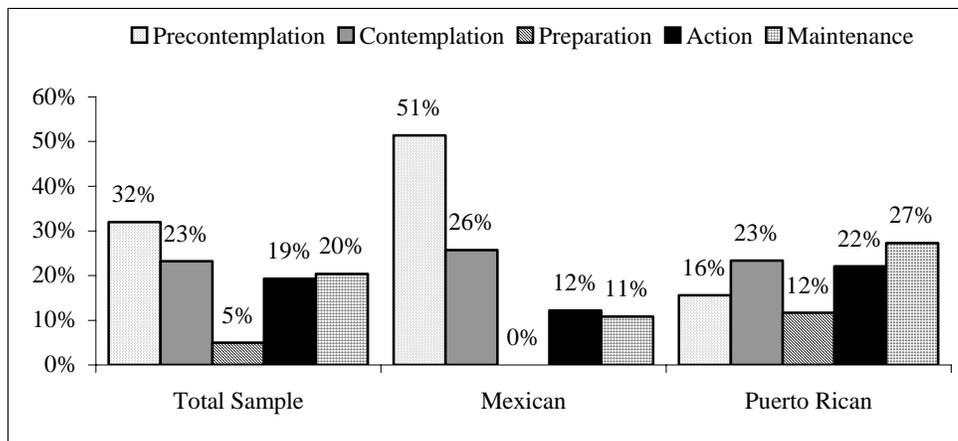
Diet Stages of Change - Child

We assessed diet and physical activity stages of change in children in a manner similar to that described above for adults. Caregivers were asked the following question: "Please pick the one that best describes the way your child eats now or your plans for his/her diet in the future:"

- "I am not currently modifying my child's eating habits to be healthier and am not thinking of doing so in the coming month" (PRE-CONTEMPLATION)
- "I am not currently trying to modify my child's eating habits to be healthier, but I have thought about doing so." (CONTEMPLATION)
- "I am not currently modifying my child's eating habits to be healthier and am not thinking of doing so in the coming month" (PRE-CONTEMPLATION)
- "I am not currently trying to modify my child's eating habits to be healthier, but I

Figure 2.3 shows the proportion of respondents in each of the diet stages of change by weight status.

Figure 2.4. Diet Stages of Change for Children, Overall and by Ethnicity^{ab}



^a Analyses by ethnicity limited to Mexican and Puerto Rican.

^b $p < 0.0001$

have thought about doing so.” (CONTEMPLATION)

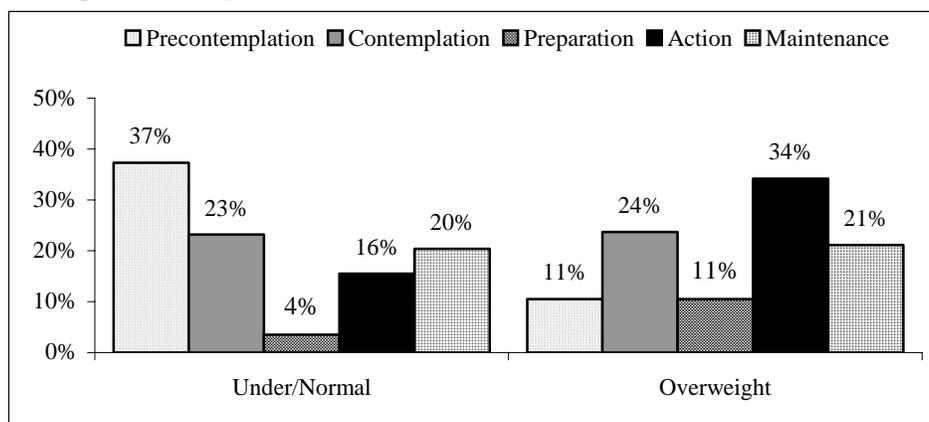
- “I am not currently trying to modify my child’s eating habits to be healthier, but I plan to do so within the next month.” (PREPARATION)
- “I am currently trying to modify my child’s eating habits to be healthier but have only been doing so for the past six months or less.” (ACTION)
- “I am currently trying to maintain a change in my child’s eating habits to be healthier and have been doing so for 7 or more months.” (MAINTENANCE)

reported by their caregiver. Overall, less than half of parents reported that they were modifying their child’s eating habits to be healthier (i.e. in either the action or maintenance phase). There were significant differences between Mexican and Puerto Ricans however, with far fewer parents of Mexican children modifying their child’s eating habits to be healthier compared to Puerto Rican children (p -value < 0.0001).

Also of interest is that caregivers who perceive their child to be overweight or obese are more likely to report that they are currently modifying their child’s eating habits to be healthier compared to caregivers who perceive their child to be under/normal weight (Figure 2.5). There were no significant associations between the child’s weight status or the caregiver’s weight status and the child’s stage of change.

Figure 2.4 shows the proportion of children in each of the stages of change by ethnicity, as

Figure 2.5. Diet Stages of Change by Caregiver’s Perception of Child’s Weight Status ($p < 0.004$)



Topic 3. Physical Activity and Sedentary Behavior

Knowledge

The benefits of physical activity (PA) have been clearly established and much effort has been made to educate the general population about the importance of regular exercise. We were interested in determining to what extent residents from Humboldt Park were knowledgeable about physical activity and its benefits.

Respondents were asked seven questions about this topic (see questions attached in Appendix 2). The average respondent answered 76% of the questions correctly (range=0-100%) (data not shown). It was encouraging that nearly all of respondents knew that regular physical activity could improve your health (99%), and that physical activity is as important as diet in helping someone lose weight (96%) (Table 3.1). In addition, the majority of respondents knew that physical activity is as important as diet in helping someone lose weight (85%). However, some responses were indicative of limited knowledge of physical activity and its benefits. For example, nearly one-quarter of respondents falsely believed that people who need to lose some weight are the only ones who will benefit from regular physical activity, and 40% of respondents did not believe that walking is an appropriate form of exercise. All of the above data show that there still exists a need to inform Humboldt Park residents about physical activity and its benefits. There were significant differences in knowledge between

Mexicans and Puerto Ricans by level of education, country of origin, and primary language spoken at home. Those who scored higher on knowledge questions were more likely to be Puerto Rican, U.S. born, have an education beyond high school, and speak English at home (data not shown).

Attitudes

In order to assess barriers respondents may face when trying to participate in physical activity we asked respondents whether they strongly agree, agree, disagree or strongly disagree with various statements.

Table 3.2 shows the proportion of respondents reporting that they “strongly agree” or “agree” with these statements. The statement most agreed upon by participants was “I’m embarrassed about how I will look when I engage in PA with others” (81%). Even though there were differences by ethnicity, with more Puerto Rican respondents agreeing with this statement compared to Mexican respondents, both groups agreed with this statement more than any others. Also of interest is that significantly more Puerto Rican respondents felt that they were too tired after work or that they didn’t have enough free time in the day to engage in physical activity compared to Mexican respondents. Puerto Rican respondents were significantly more likely to be employed, as opposed to being homemakers, and were more

Table 3.1. Knowledge About Physical Activity and Its Benefits (n=202)

Question	Correct Response	% Responding Correctly
Regular physical activity can improve your health.	TRUE	99%
It doesn’t take a lot of money or expensive equipment to become physically fit.	TRUE	79%
Most people get enough physical activity from their daily routine.	FALSE	55%
You don’t have to train like a marathon runner to become more physically fit.	TRUE	71%
People who need to lose some weight are the only ones who will benefit from regular physical activity.	FALSE	75%
Walking alone is not strenuous enough of an activity to help you maintain good health.	FALSE	60%
Physical activity is as important as diet in helping someone lose weight.	TRUE	96%

likely to be a single parent, compared to their Mexican counterparts. Thus, working and/or being a single parent are likely important barriers to being physically active for Puerto Rican respondents.

In addition, we asked about environmental barriers to physical activity. Nearly twice as many Puerto Rican respondents stated that they don't have access to jogging trails, swimming pools, bike paths, etc. compared to Mexican respondents (86% vs. 44%, respectively). Since most of the respondents live in the same community, this large difference in response is difficult to interpret.

Behavior – Adult

Questions were also asked to assess levels of physical activity among respondents. We asked about vigorous and moderate activity levels. In order to determine how often respondents exercised vigorously we asked:

- “How many days per week do you do vigorous activities for AT LEAST 10

MINUTES that cause HEAVY sweating or LARGE increases in breathing or heart rate? Vigorous activities include things such as: running, soccer, basketball, swimming laps, fast bicycling, tennis, or similar aerobic activities?” and:

- “Each time you do these vigorous activities, do you do them for 20 minutes or more, or less than 20 minutes?”

In order to assess moderate activity we asked:

- “How many days per week do you do LIGHT or MODERATE activities for AT LEAST 10 MINUTES that cause ONLY LIGHT SWEATING or MODERATE increases in breathing or heart rate? Light or moderate activities include things such as: fast walking, golf, ballroom dancing, mopping floors, pushing a lawn mower and gardening?” and:
- “Each time you do these moderate activities, do you do them for 30 minutes or more, or less than 30 minutes?”

Table 3.2. Proportion Indicating They Agree/Strongly Agree with Various Statements Related to Barriers to Physical Activity, Overall and by Ethnicity^a

Statement	Total Sample ^b	Mexican ^c	Puerto Rican ^d	p-value ^e
I'm just too tired after work to engage in physical activity.	48%	38%	56%	0.016
I've been thinking about being more physically active, but I just can't seem to get started.	36%	31%	41%	NS
I don't have access to jogging trails, swimming pools, bike paths, etc.	64%	44%	86%	<0.0001
Physical activity takes too much time away from my other commitments-like work, family, etc.	72%	72%	71%	NS
I'm embarrassed about how I will look when I engage in physical activity with others.	81%	74%	89%	0.008
It's easier for me to find excuses not to be physically active than to go out and do something.	55%	49%	60%	NS
My free time during the day is too short to include physical activity.	61%	51%	70%	0.011
My usual social activities with family or friends do not include physical activity.	50%	51%	49%	NS

^a Analyses by ethnicity limited to Mexican and Puerto Rican
^b Due to missing values, sample size ranges from 197-200
^c Due to missing values, sample size ranges from 100-102
^d Due to missing values, sample size ranges from 85-86
^e Chi-Square was used to assess significance; NS="not significant" (p>0.05)

Table 3.3. Proportion of Respondents Who Meet Physical Activity Recommendations,^a Overall and by Ethnicity,^b Gender, Age, and Weight Status

	% Meeting Recommendation	p-value*
Total Sample (n=202)	42%	--
Ethnicity^c		
Mexican	38%	0.42
Puerto Rican	44%	
Gender		
Male	60%	0.06
Female	40%	
Age		
18-44 years	43%	0.62
45-64 years	37%	
Weight Status^d		
Under/Normal Weight	48%	0.54
Overweight	38%	
Obese	46%	

^a Recommendation is for 20 minutes of vigorous activity at least 3 days a week or 30 minutes of moderate activity at least 5 days a week

^b Analyses by ethnicity limited to Mexican and Puerto Rican

^c Chi-Square was used to assess statistical significance. P<0.05 is considered statistically significant.

^d Under/Normal: BMI<25; Overweight: BMI 25-<30; Obese: BMI ≥ 30

We used these questions to determine the proportion of respondents who are meeting the physical activity recommendation made by the Centers for Disease Control (CDC), which is 20 minutes of vigorous activity at least 3 days a week or 30 minutes of moderate activity at least 5 days a week.

Data show that a slightly lower proportion of respondents report meeting the recommendation in Humboldt Park compared to the U.S. (42% vs. 46%, respectively.) (Table 3.4).

Additionally, overweight and obese respondents were equally likely to meet the physical activity recommendation when compared to under/normal weight respondents.

Below are some additional highlights from the survey related to physical activity:

- There was no difference in the proportion of respondents that met the recommendations between those who knew how much physical activity an average adult needs per day to maintain good health and those who didn't.

Table 3.4. TV and Computer Time, Overall and by Ethnicity^a

	Total Sample ^b	Mexican (n=103)	Puerto Rican (n=87)	p-value ^c
Mean TV Time, minutes (range)	147 (0-780)	121 (0-360)	173 (0-780)	0.042
Mean Computer Time, minutes (range)	118 (0-660)	54 (0-480)	155 (0-540)	<0.0001
More Than 2 Hours of TV a Day	39%	31%	48%	0.015

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b Sample sizes: 194 for TV Time; 141 for Computer Time

^c Statistical significance between ethnic groups assessed via Mann-Whitney test

Thus, knowledge does not translate into action in this particular case.

- Only 9% of respondents indicated that they were completely inactive during a typical week.
- Only 29% of respondents indicated that they did any kind of physical activity in a place such as a “Y”, gym, sports league, dance class, recreation center or any other community center within the past 7 days.

In order to assess sedentary behaviors, we asked participants how many hours and/or minutes they spent watching TV or using a computer (including at work). We found that on average respondents spent over 2.5 hours per day watching TV and an additional 2 hours per day in front of the computer (Table 3.5). The proportion of respondents that report watching more than 2 hours of TV per day was 39%. Puerto Rican respondents report more time in front of the TV and computer compared to Mexican respondents ($p = 0.04$ and <0.0001 , respectively). Of course, this would at least in part depend upon which families had computers in their homes.

Behavior - Child

To assess physical activity of the child we asked caregivers questions about how often their child walks or bikes to school, physical education (PE) in school and participation in organized physical activity.

To determine physical activity acquired by walking or biking to school, we first asked parents whether they live close enough to school so that their child could either walk or bike to school. As many as 64% of caregivers of school age children

reported that they live close enough. There were differences between Mexican and Puerto Rican children in that caregivers of Mexican children were more likely than the caregivers of Puerto Rican children to report that their child could walk or bike to school (74% vs. 56%, $p=0.058$). Whether this is a true difference between the two groups or a difference in the perception of what is walkable is unknown. Next we asked those caregivers that reported they live within walking or biking distance to their child’s school how many days per week their child walks or bikes to school. Encouragingly, of those children that live within walking/biking distance of their school, 89% walk or bike 4-5 days a week, while only 6% never walk or bike to school. We do not know, however, how far these children walk or bike to school.

To assess physical activity acquired through school, we asked caregivers of school-aged children how often their child attends PE classes. The data show that the average school-aged child attends PE only 2 days per week. In fact, a physical education needs assessment in the Chicago Public Schools determined that 83% of elementary schools do not offer daily PE despite the fact that in Illinois all schools are mandated to provide daily PE for children in kindergarten through 12th grades.⁶ Unfortunately, two days per week is far from the requirement that PE be offered daily. This is likely due to the fact that the state allows schools to seek waivers to this PE requirement. In fact, one-third of schools have such waivers and another 30-40% operate as if they do.⁶

Finally, we asked caregivers of children 5 and older whether their child participated in any

Table 3.5. Child’s TV and Screen Time, Overall and by Ethnicity^a

	Total Sample ^b	Mexican ^c	Puerto Rican ^d	p-value ^e
Median TV Time, minutes (range)	120 (0-720)	120 (0-360)	180 (0-720)	0.016
More Than 2 Hours of TV Per Day	47%	38%	55%	0.040
Median Screen Time, ^f minutes (range)	180 (0-960)	150 (0-600)	180 (0-960)	<0.001
More Than 3 Hours a Day of Screen Time ^f	41%	31%	49%	0.019

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b Sample sizes: 183 for TV Time; 184 for Screen Time

^c “Mexican” includes Mexican or mixed ethnicity children only; sample sizes: 74 for TV Time; 75 for Screen Time

^d “Puerto Rican” includes PR or mixed ethnicity children; sample sizes: 77 for TV Time; 77 for Screen Time

^e Statistical significance between ethnic groups assessed via Mann-Whitney tests for continuous variables and Chi-Square/Fisher as appropriate for categorical variables. $P<0.05$ is statistically significant.

^f Combines TV and videogame/computer time

organized physical activities or played on any sports teams in the past 12 months. We found that about half of children (56%) played on a sports team or participated in other organized physical activity during the past 12 months. In comparison, one survey found that 61% of children in the U.S. reported playing on at least one sports team in the past 12 months.⁸ There were no differences for this variable between Mexicans and Puerto Ricans, caregiver’s country of origin, gender or BMI.

We also asked questions about how much time children spend in various sedentary activities like watching TV, playing video games or sitting in front of a computer. Specifically, parents were asked to estimate how many hours and minutes their child spends watching TV, playing video games or sitting in front of a computer (including at school) on a typical day. In addition to looking at each of these variables separately, we also summarized these questions into one to determine the total amount of time children spend in front of a screen (screen time). The recommendation is that children limit TV and other recreational screen time to less than two hours per day.⁹

Table 3.6 shows the amount of time children spend watching TV and in front of a screen per day. Nearly half of children (47%) spend more than two hours per day watching TV. Furthermore, 41% of children spend more than 3 hours per day sitting in front of a screen. Puerto Rican children spent more time watching TV and more time in front of the screen compared to Mexican children. Also of interest is that there is a significant correlation between how much time caregivers spend

watching TV and the amount of time their child spends watching TV ($p < 0.0001$) (data not shown)

Physical Activity Stages of Change - Adult

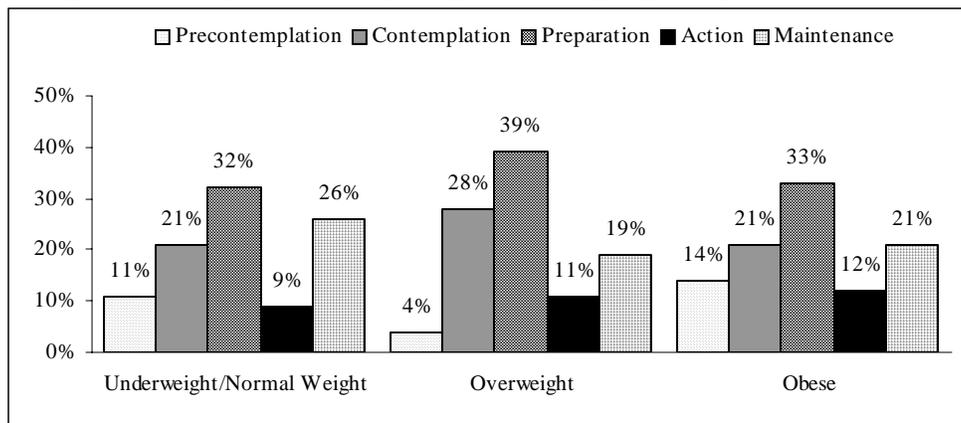
Similar to the questions about diet stages of change, (see Topic 2, page 17) we also were interested in determining where respondents fell on the continuum of change toward becoming physically active.

Respondents were asked to: “Please pick the one that best describes your exercise habits.”

- “I am currently not physically active and do not intend to start being physically active in the next six months” (PRE-CONTEMPLATION)
- “I am currently not physically active, but I am thinking about becoming physically active in the next six months.” (CONTEMPLATION)
- “I currently am physically active, but not on a regular basis.” (PREPARATION)
- “I currently am physically active regularly, but I have only begun doing so within the last six months.” (ACTION)
- “I currently am physically active regularly, and have done so for longer than six months.” (MAINTENANCE)

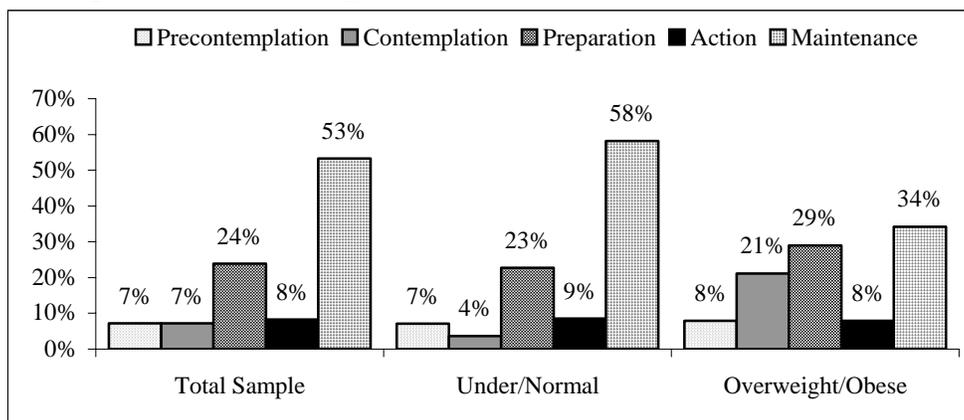
The data show that 70% who are overweight and 67% of those who are obese are not regularly physically active (and thus not in either the action or maintenance phase) (Figure 3.1). It is encouraging however, that 67% of overweight and 54% of obese respondents are either contemplating or preparing to become physically active on a regular basis.

Figure 3.1. Physical Activity Stages of Change by Weight Status^a (n=173)



^a p=0.688

Figure 3.2. Physical Activity Stages of Change, Overall and by Caregiver’s Perception of Child’s Weight Status^{ab}



^a n=141 for Under/Normal and n=38 for Overweight

^b p=0.004

Physical Activity Stages of Change – Child

In order to determine where on the continuum of change the children are, in terms of being regularly physically active, caregivers were asked to: “Please pick the one that best describes your child’s exercise habits.”

- “My child is not physically active enough for his/her age and I have not thought about ways to increase his/her physical activity” (PRE-CONTEMPLATION)
- “My child is not physically active enough for his/her age and I have thought about ways to increase his/her physical activity.” (CONTEMPLATION)
- “My child is physically active, but not on a regular basis.” (PREPARATION)
- “My child is physically active on a regular basis, but he/she has only been this active for the last six months.” (ACTION)
- “My child is physically active on a regular basis, and has been active for longer than six months.” (MAINTENANCE).

Figure 3.2 shows the proportion of children who fall into each of the stages of change overall and by perceived weight status, as reported by their caregiver. Overall, the majority of caregivers report that their child is physically active on a regular basis and has been active for longer than six months (in the maintenance stage) (53%). There were no differences in the distribution of children across the five stages of change between

Mexicans and Puerto Ricans. However, caregivers that perceive their child to be under/normal weight are more likely to report that their child is in the maintenance phase compared to caregivers that perceive their child to be overweight/obese (58% vs. 34%, p=0.004). Finally, 29% of caregivers that perceive their child to be overweight/obese report that they are not yet preparing to make changes so that their child becomes physically active on a regular basis.

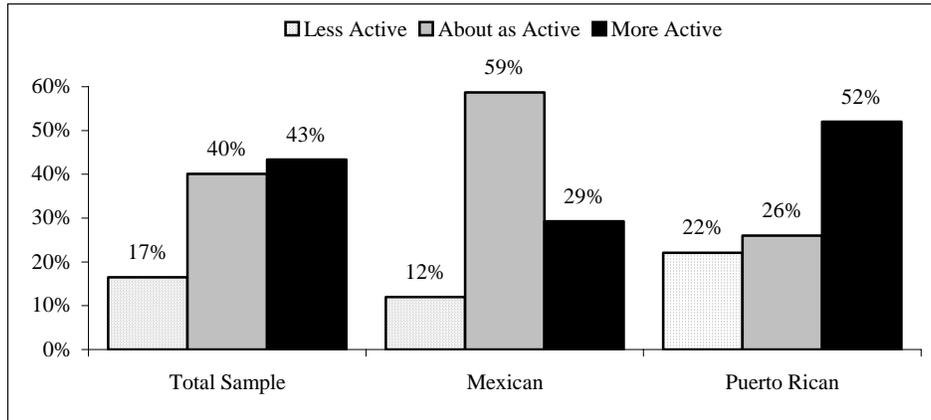
Perceptions – Child

Caregivers were asked to compare how the physical activity of their child compared to other children of the same age. Figure 3.3 shows that overall 40% of caregivers believe their child to be as active and an additional 43% believe their child to be more active than other children of the same age.

Caregivers of Mexican children felt their child was “about as active” compared to other children of the same age, whereas caregivers of Puerto Rican children were more likely to believe their child was “more active” than other children of the same age.

We also compared the caregiver’s perception of the child’s activity level to the caregiver’s perception of the child’s weight status (Figure 3.4). It is interesting to note that caregivers that perceived their child to be under/normal weight

Figure 3.3. Caregiver’s Perception of Child’s Activity Level vs. Other Children of the Same Age, Overall and by Ethnicity^{ab}

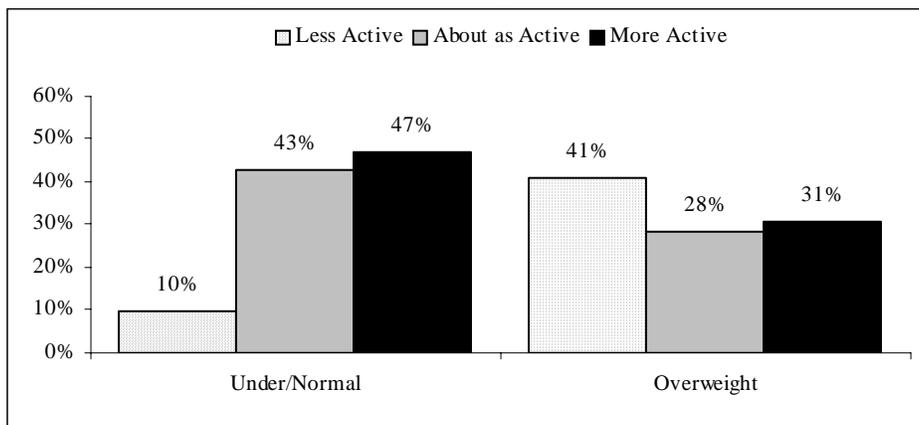


^a Analyses by ethnicity limited to Mexican and Puerto Rican. “Mexican ” includes children described only as Mexican or as mixed ethnicity. “Puerto Rican” includes PR or mixed.
^b p=0.0002

were more likely to perceive that their child was as active or more active than other children of the same age. Thus, caregivers who don’t perceive a problem with their child’s weight status also don’t perceive a problem with their child’s activity level. As shown previously, however, 87% of caregivers of overweight children and 58% of caregivers of obese children perceived their child to be under/normal weight. Thus, it seems likely that many caregivers also misperceive their child’s activity level. Unfortunately many

caregivers will not make necessary changes to their child’s behavior if they don’t perceive a problem. On the other hand, 41% of caregivers that correctly perceive their child to be overweight/obese also perceive their child to be less active than other children of the same age. We can hope that if caregivers have accurate perceptions of their child’s weight and activity levels, they will make the necessary changes to improve the health of their child.

Figure 3.4. Caregiver’s Perception of Child’s Activity Level Versus Caregiver’s Perception of Child’s Weight Status^a



^a p<0.0001

Topic 4. Healthy Environment

Measures of a healthy environment were also assessed. In this topic we present information about where respondents do their food shopping and their satisfaction with the store’s selection, perceived safety in one’s neighborhood and food security.

Grocery Shopping

Participants were asked to indicate the three stores where they most often do their grocery shopping. The grocery stores most often visited by participants are: Aldi (73%), Jewel (66%), Cermak (42%), and others (41%). Of those that mentioned “other”, the stores most often mentioned were Cub Foods (28%), Guanajuato (28%) and Tony’s (18%). These responses are consistent with an excellent report issued by the Metro Chicago Information Center which documented how few major supermarket chain stores are found in communities of color compared with “white communities” (<http://info.mcfol.org/www/Datainfo/hottopics/communitydevelopment/pdf/CHAINREACTION.pdf>).

To determine respondents’ satisfaction with the places they do their food shopping, we asked if they usually were: not at all satisfied, not too satisfied, somewhat satisfied or very satisfied with the selection of food items available at the store where they usually shop for food. Almost all respondents (95%) stated that they were either “somewhat or very satisfied” with the selection of food items available at the store where they usually shop for food. Interesting, however, is that while nearly all of respondents indicated they

are satisfied with the selection, more than half (52%) report they often or sometimes do not buy fruits or vegetables because of their high prices. It appears that respondents might not have considered prices when asked this question, and thus their satisfaction with the places they do their food shopping may be lower than expected. There were no differences in satisfaction about food items between respondents from the primarily Puerto Rican area and the primarily Mexican area in Humboldt Park.

While we were able to determine if participants were satisfied with the food selection where they normally shop, we do not know if these stores offer healthy foods at reasonable prices. In future surveys, it would be helpful to have information on the true availability of healthy foods.

Safety Issues

We were interested in whether respondents felt safe allowing their child to play outside in their neighborhood. We should note that 88% of Mexican respondents and 92% of Puerto Rican respondents live within walking distance of a park, playground or open space (data not shown). However, one-third of respondents feel that the park or playground closest to their home is not safe during the day (Table 4.1). Mexican respondents were more likely to report that the park or playground where they live is not safe during the day compared to Puerto Rican respondents (14% vs. 36%, $p=0.0007$). On the other hand, Mexican respondents were more likely than Puerto Rican respondents to feel comfortable with their child playing outside in

Table 4.1. Proportion Indicating They Agree/Strongly Agree to Selected Statements Related to Physical Activity and Perceptions of Safety, Overall and by Ethnicity^a

Statement	Total Sample^b	Mexican^c	Puerto Rican^d	p-value^e
The park or playground closest to where I live is safe during the day.	73%	64%	86%	0.0007
I would walk more often if I felt safer in my community.	67%	75%	56%	0.0061
I feel comfortable with my child playing outside in my community.	60%	74%	48%	0.0003

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b Due to missing values, sample size ranges from 199-201

^c Due to missing values, sample size ranges from 98-101

^d Due to missing values, sample size ranges from 86-87

^e Chi-Square was used to assess significance

Table 4.2. Proportion of Respondents Who Have Encountered Challenges When Buying Food, Overall and by Ethnicity^{ab}

		% Often	% Sometimes	p-value ^c
The food that (I/we) bought just didn't last, and (I/we) didn't have money to get more.	Total	9	52	0.008
	Mexican PR	7 13	61 38	
(I/we) couldn't afford to eat balanced meals.	Total	9	44	0.004
	Mexican PR	8 10	56 31	
(I/we) often do not buy fresh fruits or vegetables because of their poor quality.	Total	14	39	NS
	Mexican PR	16 12	45 34	
(I/we) often do not buy fresh fruits or vegetables because of their high prices.	Total	9	43	0.009
	Mexican PR	4 16	49 34	

^aAnalyses by ethnicity limited to Mexican and Puerto Rican

^bDue to missing values, sample size ranges from 182-187

^cP-value comparing % Often, % Sometimes and % Never. Chi-Square/Fisher as appropriate was used to assess significance. NS="not significant" (p>0.05).

their community. It appears that Mexican and Puerto Rican caregivers perceive the safety of their children differently, and that perceptions of safety vary between different areas in the community (i.e. safety in the park/playground vs. safety in the community as a whole).

We also assessed whether respondents felt safe walking in their neighborhood. As many as 67% of respondents agreed that they would walk more often if they felt safer in their community. More Mexican respondents agreed with this statement compared to Puerto Rican respondents (75% vs. 56%, p-value=0.0061). We should comment on the fact that a large proportion of respondents felt that the park or playground closest to where they live is safe during the day, yet many respondents also agreed they would walk more often if they felt safer in their community.

This discrepancy might exist because participants were confused by the questions, or it could be due to the fact that the question about the safety of the park or playground specified "during the day." However, since the questions about the safety of walking in their community did not specify the time of day, respondents likely considered the safety of walking at all times of day when they responded to this question.

Food Security

Several questions were asked in order to assess food security of the survey respondents. Being food secure means having access, at all times, to enough food for an active, healthy life for all household members.¹⁰ Table 4.2 displays four different statements that are indicative of food insecure situations and the proportion of respondents that often or sometimes experienced these situations. For each of the four statements less than half of respondents would be considered food secure. For example, in the last 12 months 61% of respondents reported that the food they bought often or sometimes didn't last and there wasn't money to get more.

Also discouraging is the fact that 52% of respondents reported that they often or sometimes do not buy fruits or vegetables because of their high prices. Mexican respondents are less likely to be considered food secure based on the four statement presented here, compared to Puerto Rican respondents.

We wanted to assess respondents' agreement with two situations related to nutrition, money and time, when buying food. Table 4.3 shows two statements that were read to respondents. They were then asked how often the statement applied

to them. Over one-third of respondents reported that they always or sometimes purchase the cheaper box of cereal even if it is less nutritious, and about half of respondents reported that they pick up fast food when they don't have time to prepare a meal. More Puerto Rican respondents

agreed with this statement compared to Mexican respondents (62% vs. 42%, p-value<0.0001). It appears that there are serious barriers, like money and time, which are preventing parents from offering healthier food options to their children.

Table 4.3. Level of Agreement With Situations Affecting Food Choice, Overall and by Ethnicity^a

		% Always	% Sometimes	p-value ^b
I often purchase the cheaper box of cereal even if it is less nutritious.	Total	5	31	NS
	Mexican	3	28	
	PR	7	35	
When I do not have time to prepare a meal, I often pick up fast food, such as KFC, Burger King, McDonalds or Best Sub	Total	12	39	<0.0001
	Mexican	2	40	
	PR	24	38	

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b P-value comparing % Always, % Sometimes and % Rarely/Never. Chi-Square/Fisher as appropriate was used to assess significance. NS="not significant" (p>0.05)

Topic 5. Perceived Impact of Obesity on the Community

Respondents were asked four questions in order to determine their perceptions about the impact of obesity in their community. It is evident from Table 5.1 that respondents perceive obesity to be a serious problem and feel that the diets and physical activity levels of those in their community are poor. The majority of respondents agreed that obesity is a serious problem for both adults and children. Furthermore, only 13-16% believed that most children in their neighborhood had a nutritious diet. Similarly, the majority

agreed that most children in their community do not get enough exercise.

There were some differences between Mexican and Puerto Rican respondents. To begin, more Mexican respondents agreed that obesity is a serious problem for children in their community. In fact, 100% of Mexican respondents felt this way. In addition, more Mexicans felt that children in their neighborhood were not getting enough exercise.

Table 5.1. Overall Perceptions of Health in the Community by Ethnicity^a

% Yes	Total Sample^b	Mexican^c	Puerto Rican^d	p-value^e
Do you think that obesity is a serious problem for ADULTS in your community?	95%	98%	91%	NS
Do you think that obesity is a serious problem for CHILDREN in your community?	92%	100%	86%	0.001
Do you believe that most children in your neighborhood eat well?	14%	13%	16%	NS
Do you believe that most children in your neighborhood get enough exercise?	21%	8%	31%	<0.001

^a Analyses by ethnicity limited to Mexican and Puerto Rican

^b Due to missing values, sample size ranges from 201-202

^c Due to missing values, sample size ranges from 102-103

^d Sample size 87

^e Chi-Square/Fisher was used to assess significance (p<0.05). NS="not significant" (p>0.05)

Topic 6. Breastfeeding

There are many benefits of breastfeeding for both the baby and the mother. Some benefits for the baby include: a decreased chance of being overweight later in life,¹¹ a stronger immune system, a decrease in risk for type 1 and type 2 diabetes,¹² and a lower post neonatal infant mortality rate compared to babies who are not breastfed.¹³ The American Academy of Pediatrics recommends breastfeeding babies for at least 6 months and ideally for one year.¹⁴ Thus, we thought it important to determine how many respondents breastfed or even initiated breastfeeding their child.

Table 6.1 shows the proportion of female respondents who had a baby in the past 5 years that initiated breastfeeding. The majority of the sample, 68%, reported that they initiated breastfeeding. This is similar to the general U.S. population in which 71% initiate breastfeeding. However, nationally 78% of Latino mothers initiate breastfeeding, which is higher than in Humboldt Park (68%). When we look at this closer, we see that in our sample Puerto Ricans are significantly less likely to initiate breastfeeding compared to Mexican mothers (54% vs. 80%, respectively).

If we look only at Mexican mothers, the proportion of our sample to initiate breastfeeding is similar to what is found in the U.S. Latino population. Again we see the challenges of combining ethnic groups into a single category. Breastfeeding practices between Mexican and Puerto Rican residents in Humboldt Park are clearly different.

The 2010 Healthy People goal for breastfeeding states:

- 75% of women breastfeed their infants at hospital discharge,
- 50% breastfeed their infants at 6 months of age, and
- 25% breastfeed their infants at 12 months of age.¹⁵

Table 6.1. Proportion of Women Who Initiated Breastfeeding With at Least One Child (n=88)^a

	Breastfed	p-value ^b
Total Sample	68%	NA
Age		
18-29 years	73%	
30-54 years	64%	NS
Race/Ethnicity^c		
Mexican	80%	
Puerto Rican	54%	0.017
Marital Status		
Married ^d	75%	
Unmarried ^e	52%	0.054

^a Analysis limited to females who gave birth to at least one baby in the past 5 years

^b Fisher Exact Test was used to assess statistical significance. p<0.05 is considered significant

^c Analyses by ethnicity limited to Mexican and Puerto Rican

^d Married or living with someone

^e Unmarried includes never married, widowed, separated and divorced

According to Table 6.2, the Mexican community in Humboldt Park is currently meeting two of these goals whereas the Puerto Rican community is not meeting any. The only goal that the Mexican community in Humboldt Park is not currently meeting is that 25% breastfeed their infants at 12 months. They are close to the goal, with 20% breastfeeding at 1 year of age. On the other hand, the Puerto Rican community in Humboldt Park is far from reaching any of the three goals. By looking at breastfeeding practices by ethnicity, we see that interventions around breastfeeding should be targeted at the Puerto Rican community, rather than Latinos as a whole.

Finally, we should note that there were no differences in initiating breastfeeding or breastfeeding for at least 6 months by age or marital status.

Table 6.2. Proportion of Women Who Breastfed Their Child for at Least 6 Months (n=86)^a

	Breastfed \geq 6 months	Breastfed \geq 12 months	p-value ^b
Total Sample	36%	13%	NA
Age			
18-29 years	31%	12%	NS
30-54 years	41%	14%	
Ethnicity^c			
Mexican	51%	20%	0.008
Puerto Rican	17%	3%	
Marital Status			
Married ^d	45%	16%	0.082
Unmarried ^e	19%	7%	

^a Analysis limited to females who gave birth to at least one baby in the past 5 years

^b Fisher Exact Test was used to assess statistical significance. P<0.05 is considered statistically significant.

^c Analyses by ethnicity limited to Mexican and Puerto Rican

^d Married or living with someone

^e Unmarried includes never married, widowed, separated and divorced

Topic 7. Health Related Quality of Life (HRQOL)

Adult

It has been established that people's perception of their overall health is remarkably accurate and can be used to predict future health care needs, as well as five and ten year mortality.^{16,17,18, 19} We therefore asked respondents to rate their overall health using the following often-used question, "In general, would you say your health is: {excellent, very good, good, fair, or poor}?"

A large proportion of individuals in Humboldt Park rate their health as fair or poor compared to the U.S. as a whole (44% vs. 16%, respectively) and to U.S. Latinos (44% vs. 27%, respectively).²⁰ Moreover, these levels of subjective health vary by nativity (Figure 7.1). For example, over half of individuals born in Mexico say that their health is fair or poor, compared to 38% of U.S. born Mexican individuals and 41% of individuals born in Puerto Rico. These patterns are supported by previous studies that have found lower levels of self-rated health for Latinos, particularly Latino immigrants, compared to non-Latino and native-born individuals.^{21, 22} State and national data also confirm the higher levels of reported fair or poor

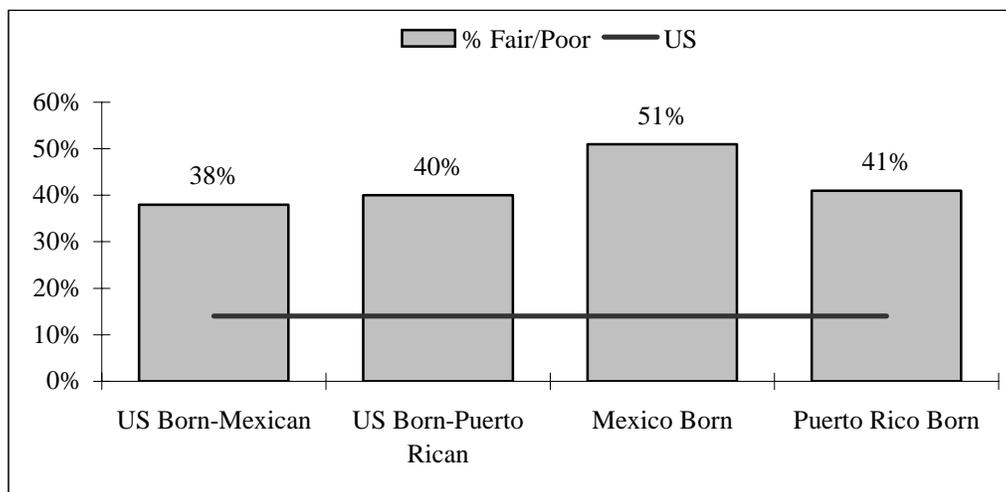
health for Latinos compared to non-Latinos. However, these data show that not all Latino immigrants report lower levels of self-rated health. For example, respondents born in Mexico were more likely to report lower self-rated, while respondents born in Puerto Rico rated their health similar to that of respondents born in the U.S. Thus, reporting a lower self-rated health may not hold true for all Latino immigrants; instead it may vary by country of origin.

Child

Finally, caregivers were asked to rate their child's overall health by answering the following question: "In general, would you say [insert child's name] health is excellent, very good, good, fair or poor?"

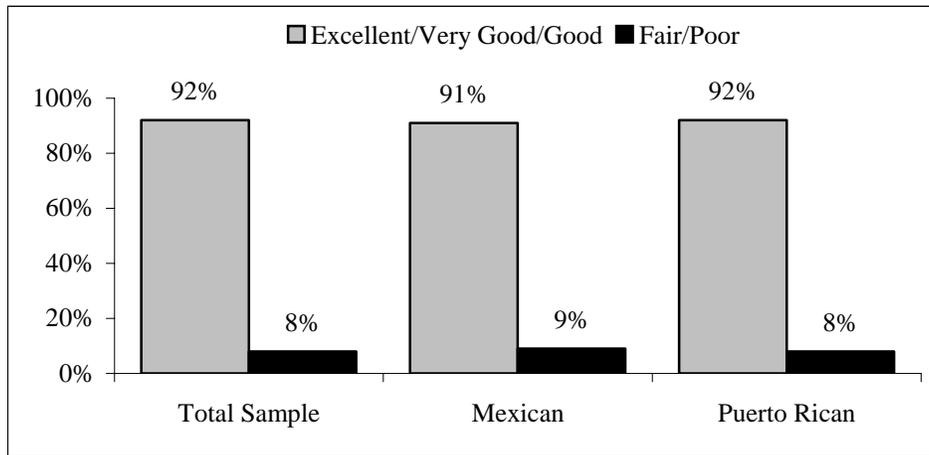
The data show that overall, an overwhelming proportion of caregivers reported their child's health to be excellent/very good/good. Only 8% of caregivers reported that their child's health was fair or poor (Figure 7.2). There were no significant differences in proxy-rated health between Mexicans and Puerto Ricans.

Figure 7.1. Proportion of Respondents With Fair/Poor Self-Rated Health by Country of Origin



Source: ^a US data comes from the Behavioral Risk Factor Surveillance System, 2004

Figure 7.2. Proxy-Rated Health of Children by Ethnicity^a



^a Analyses by ethnicity limited to Mexican and Puerto Rican. “Mexican” includes children described only as Mexican or as mixed ethnicity. “Puerto Rican” includes children described only as PR or as mixed ethnicity.

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List of appendices

APPENDIX 1: Questions included in the calculation of the nutrition and food label knowledge score

APPENDIX 2: Questions included in the calculation of the benefits of physical activity knowledge score

APPENDIX 3: Screening Form

**APPENDIX 1: QUESTIONS INCLUDED IN THE CALCULATION OF THE NUTRITION AND
FOOD LABEL KNOWLEDGE SCORE**

1. The Surgeon General recommends that we eat a certain number of fruits and vegetables every day to be healthy. How many servings of fruits and vegetables do you think it is recommended that you eat in a day?
- ____ SERVINGS * [CORRECT RESPONSE = 5 OR MORE]
- NO CODED RESPONSE APPLICABLE97
- SPECIFY: _____
- DON'T KNOW/NOT SURE98
- REFUSED99
2. Which of the following is the healthiest breakfast choice? Would you say...
- An Egg McMuffin.....1
- Bagel and cream cheese2
- Oatmeal with raisins3 *
- Doughnut and coffee.....4
- NO CODED RESPONSE APPLICABLE97
- SPECIFY: _____
- DON'T KNOW/NOT SURE98
- REFUSED99
3. About how large is one serving of meat [PROMPT: IF NECESSARY, GIVE EXAMPLES: "SUCH AS A CHICKEN BREAST OR A STEAK"]. Would you say about the size of...
- A deck of cards1 *
- A dinner plate.....2
- Both your hands3
- A pair of dice4
- NO CODED RESPONSE APPLICABLE97
- SPECIFY: _____
- DON'T KNOW/NOT SURE98
- REFUSED99
4. Which of the following is the healthiest drink? Would you say...
- Coffee.....1
- Pop2
- Water.....3 *
- Gatorade.....4
- Kool-Aid5
- NO CODED RESPONSE APPLICABLE97
- SPECIFY: _____
- DON'T KNOW/NOT SURE98
- REFUSED99

(*INDICATES THE CORRECT RESPONSE)

5.	If you are going to cook with oil or fat, which is the healthiest choice? Would you say...	
	Vegetable Oil	1
	Canola Oil	2*
	Coconut Oil.....	3
	Lard.....	4
	DON'T KNOW/NOT SURE	98
	REFUSED	99

Now I'm going to read you a statement. Please indicate whether it is either true or false.

6.	Sodium (or salt) is important to monitor if you have high blood pressure.	
	True	1*
	False	2
	DON'T KNOW/NOT SURE	98
	REFUSED	99

7.	How many grams of total fat should an average healthy adult eat/consume per day? Would you say...[SHOW RESPONDENT FLASH CARD]	
	0 grams.....	1
	5-10 grams	2
	40-70 grams	3*
	100-120 grams	4
	DON'T KNOW/NOT SURE	98
	REFUSED	99

IF RESPONDENT IS MALE, ASK Q23. ELSE SKIP TO Q24.

8.	About how many calories should an <u>average healthy man</u> , who is not trying to gain or lose weight, consume or eat in an average day. Would you say...:[SHOW RESPONDENT FLASH CARD]	
	900-1400	1
	1500-2000	2
	2300-2700	3*
	2800-3200	4
	DON'T KNOW/NOT SURE	98
	REFUSED	99

IF RESPONDENT IS FEMALE, ASK Q24. ELSE SKIP TO Q25.

9.	About how many calories should an <u>average healthy woman</u> , who is not trying to gain or lose weight, consume or eat in an average day. Would you say...:[SHOW RESPONDENT FLASH CARD]	
	900-1400	1
	1500-2000	2*
	2300-2700	3
	2800-3200	4
	DON'T KNOW/NOT SURE	98
	REFUSED	99

Nutrition labels are often difficult to understand. Now, I'd like to ask you some questions about the nutrition label we found on a can of pop. **[PROMPT: SHOW FLASHCARD WITH NUTRITION LABEL OF COKE CAN.]**

Nutrition Facts	Amount/Serving	%DV*
Serv. Size	Total Fat 0g	0%
8 fl oz	Sodium 35mg	1%
(240 mL)	Total Carb 27g	9%
Servings 2.0	Sugars 27g	
	Protein 0g	
Calories 100	* Percent Daily Values (DV) are based on a 2,000 calorie diet.	

10. If someone finished this entire can of Coke, how many calories will they have consumed? Would you say...: **[READ RESPONSE OPTIONS THROUGH "2,000"]**
- 100 1
- 200 2 *
- 400 3
- 2,000..... 4
- NO CODED RESPONSE APPLICABLE97
- SPECIFY: _____
- DON'T KNOW/NOT SURE98
- REFUSED99
11. Would one serving of this drink be unhealthy for people trying to avoid salt in their diet?
- Yes 1
- No..... 2 *
- NO CODED RESPONSE APPLICABLE97
- SPECIFY: _____
- DON'T KNOW/NOT SURE98
- REFUSED99

(*INDICATES THE CORRECT RESPONSE)

**APPENDIX 2: QUESTIONS INCLUDED IN THE CALCULATION OF THE BENEFITS OF
PHYSICAL ACTIVITY KNOWLEDGE SCORE**

Please tell me whether you believe each of the following statements is true or false.

	True	False	DON'T KNOW
1. Regular physical activity can improve your health.	1*	2	9
2. It doesn't take a lot of money or expensive equipment to become physically fit.	1*	2	9
3. Most people get enough physical activity from their daily routine.	1	2*	9
4. You don't have to train like a marathon runner to become more physically fit.	1*	2	9
5. People who need to lose some weight are the only ones who will benefit from regular physical activity.	1	2*	9
6. Walking alone is not strenuous enough of an activity to help you maintain good health.	1	2*	9
7. Physical activity is as important as diet in helping someone lose weight.	1*	2	9

(*INDICATES THE CORRECT RESPONSE)

APPENDIX 3: SCREENING FORM

Date __ __/__ __/__ __

**Community Wellness Survey
Household Screener**

Hello, I am with the CO-OP Humboldt Park Project. We are conducting a Wellness Survey to better understand the health of our community. This project is being implemented in partnership with the Puerto Rican Cultural Center and Centro sin Fronteras.

First, I'd like to ask you a few questions about you to determine whether your household qualifies. We are asking questions of the caregivers of children ages 2-12 about healthy eating and physical activity.

1. Are you:
Puerto Rican.....1
Mexican.....2
Black3
2. How many children ages 2-12 are living in your household? _____

3. What is the age and sex of each child? Please list in order.

SELECT ONE CHILD TO INTERVIEW

[REFER TO SELECTION TABLE IF MORE THAN ONE ELIGIBLE CHILD AGE 2-12]

CHILD SELECTED	AGE OF CHILD (2-12 YRS ONLY)	SEX OF CHILD (MALE/FEMALE)
1		
2		
3		
4		
5		

IF ONLY 1 ELIGIBLE CHILD IS 2-12YRS, WRITE THEIR AGE AND SEX AND CIRCLE NUMBER 1.

IF THERE IS MORE THAN ONE ELIGIBLE CHILD, SELECT THE CHILD CLOSEST TO AGE 6.

IF TWO CHILDREN EQUALLY CLOSE TO AGE 6, THEN SELECT THE OLDER CHILD.

4. Are you a caretaker of the child?

Yes1 [GO TO 5]
No.....2 [GO TO 6]

5. IF YES, ASK: May I ask you some questions about health and wellness?

Yes, R AGREES TO INTERVIEW..... 1 [BEGIN CONSENT AND INTERVIEW]
No, R REFUSES TO BE INTERVIEWED AT THIS TIME.....2 [SCREENER COMPLETED, FILL OUT LOG FORM AND GO TO NEXT INTERVIEW]
No, R REFUSES TO BE INTERVIEWED ANY TIME..... 9 [GO TO QUESTION 7]

6. IF NO: May I speak with a caretaker of this child to ask him/her questions about the child and his/her health?

Yes, R AGREES TO INTERVIEW..... 1 [BEGIN CONSENT AND INTERVIEW]
No, R UNAVAILABLE.....2 [GO TO QUESTION 7]

7. TRY TO MAKE AN APPOINTMENT, ASK:

When would be a good day/time that I can return to speak with this person?

SCHEDULED TO RETURN ON:

DAY/S: _____

TIME/S: _____

NAME (INDIVIDUAL TO ASK FOR): _____



CO-OP HUMBOLDT PARK