

Assessing Social, Environmental, and Behavioral Determinants of Health and Chronic Disease among Latinos in Benton County, OR: A pilot quantitative approach.

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Introduction

During the last decade, there has been an increased visibility of Hispanic Immigrants in rural communities that have been historically non-Hispanic white settlements¹. Research has demonstrated that health disparities among Hispanics include high rates of diabetes, obesity, and heart disease. As Hispanic families transition to life in the United States as active members of rural communities, many health needs may not be served due to economic, social and cultural barriers²⁻⁴.

In Benton County, a qualitative approach has been the norm for retrieving local perspectives. Focus groups conducted through the Benton County Health Department Promotores de Salud Program in 2005 highlighted multiple barriers to accessing health services at Benton Community Health Center (BCHC), including lack of awareness of services, language barriers, prohibitive costs; long distances to travel; lack of transportation; lack of insurance, and inconvenient clinic hours⁵. As a consequence, the BCHC now offers evening and weekend services in its Corvallis, Lincoln and Monroe locations. A follow-up focus groups series, conducted in May and November 2007, confirmed that the majority of participants (85%) identified accessing health care services as a major challenge in their lives⁶. More recently, a discussion among users of the Monroe clinic showed that the kindness and cultural awareness of administrative and clinical staff were seen as key in a successful medical appointment⁷. The first round of focus groups (2005) was the only to ask broader health questions. Clearly, women were identified as key conduits for health information among Latino men. Furthermore, women facilitate and maintain Latino men's health by preparing food, creating a supportive family environment, and providing the connection to the community for socialization. Latinos perceived that having food is essential for being healthy. Finally, work was considered an essential component in their ability to buy more diverse and "healthy" foods.

The present project builds on these previous efforts using a quantitative approach. The purpose of this project was to analyze social, environmental, and behavioral determinants of health and chronic disease of Latinos living in Benton County, Oregon.

Materials and Methods

Participants

Participants consisted of a convenience sample of Latinos (n=68), 18 years and older, attending a community outdoor event (the Soccer Tournament and Family Weekend at Willamette Park in Corvallis). Participants were asked to voluntarily participate in the

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survey and assured confidentiality. No personal identification information was collected. The survey was conducted primarily in connection with the prevention screening services provided by The Mid-Valley Lions Club. Participants were screened for blood pressure, visual acuity, glaucoma, diabetes, and audition. Eighty-four percent of participants underwent a health screening test. Sixty-five percent (n=44) lived in Benton County. This report gives emphasis to Benton County data and uses out-of-county data for comparison purposes only. Table 1 presents a demographic profile of Benton County participants.

Questionnaire Development

From an ecological perspective, the questionnaire (see Appendix A) was developed considering various social, behavioral and environmental predictors of health and chronic disease. Measures included self-reported health and health care issues; physical activity, nutrition, diabetes and other chronic diseases; and alcohol and tobacco consumption. Two outcome measures were considered: 1) *Self-rated health*, based on responses to a single item “Would you say that in general your health is excellent, very good, good, fair, or poor?”, was dichotomized with 0 for excellent, very good and good; and 1 for fair or poor. Various studies have established that this measure is highly predictive of subsequent mortality.⁸ 2) *Food security*, based on three questions from the USDA Food Security Module⁹, was dichotomized as 0 for food secure and 1 for food insecure.

One of the premises was to utilize, to the extent possible, valid and reliable measures. Consequently, the majority of questions were extracted from the 2008 Behavioral Risk Factors Surveillance System survey ([BRFSS](#)). Also, one question on access to parks and recreation from the 2007 California Health Interview Survey ([CHIS](#)) Adult Questionnaire version 5.0; two questions on fruit, vegetables, and cereal consumption from the 2002 Kandiyohi County (Minnesota) Eliminating Health Disparities Survey ([KCEHDS](#)). Finally, involving local partners, we added three questions from the USDA Food Security Module⁹, and the Short Acculturation Scale¹⁰, as implemented by the *Las Comidas Latinas*: Linn-Benton Food Assessment Project; and three health care utilization questions from the Oregon State University Latino Health Project. In this survey, the Acculturation scale had relatively high reliability (Coefficient alpha=0.82).

Hardware and Software

Data was collected using a personal digital assistant (PDA)-based questionnaire. The selection of handhelds was guided by considerations of cost, size, and cultural appropriateness. We selected the low-end Palm OS Z22 due to its relatively low cost and small size which made it easy to handle and allowed a closer interaction with survey participants (i.e. it was perceived as less of a barrier between interviewer and interviewee). The software utilized was Pendragon® forms 5.1 which allowed us to easily synchronize the handheld devices with the PC and the possibility of having an Access dataset, and exporting it as Excel or ASCII files. The development, implementation, and cost-effectiveness of using this technology has been discussed elsewhere^{11,12}.

Data Analysis

Univariate and bivariate statistical techniques were used in this analysis. Summary statistics for all discrete and continuous variables were calculated. Chi-square tests were performed on the nominal and ordinal variables to assess differences in self-reported health and food security. T-tests were conducted on the continuous predictor (i.e. age). SPSS v11.5 was used for all statistical analyses.

Table 1. Demographic Characteristics of Benton County Latino participants (n=44).

	Mean or percent	
	Mean (SD)	n (%)
Age	31.8 (10.4)	
Sex		
Male		28 (63.6)
Female		16 (36.4)
Educational level		
Never attended school or only attended kindergarten		3 (6.8)
Grades 1 through 8 (Elementary)		8 (18.2)
Grades 9 through 11 (Some high school)		16 (36.4)
Grade 12 or GED (High school graduate)		14 (31.8)
College 1 year to 3 years (Some college or technical school)		2 (4.5)
College 4 years or more (College graduate)		1 (2.3)
Employment status		
Employed for wages		28 (63.6)
Self-employed		4 (9.1)
Out of work for more than 1 year		1 (2.3)
A Homemaker		10 (22.7)
Refused		1 (2.3)
Marital status		
Married		26 (59.1)
Widowed		1 (2.3)
Separated		1 (2.3)
Never married		11 (25.0)
A member of an unmarried couple		5 (11.4)
Annual Household Income		
Less than \$10,000		11 (25.0)
\$10,000 to less than \$15,000		10 (22.7)
\$15,000 to less than \$20,000		11 (25.0)
\$20,000 to less than \$25,000		4 (9.1)
\$25,000 to less than \$35,000		7 (15.9)
Don't know / Not sure		1 (2.3)
Acculturation		
Less acculturated		39 (97.5)
More acculturated		1 (2.5)
Self-reported health		
Excellent/very good/good		23 (52.3)
Fair/poor		21 (47.7)
Food security		
Food secure		29 (65.9)
Food insecure		15 (34.1)

SD= Standard deviation.

Results

Health care issues

On average, participants visited a health provider two times during the last year. However, the majority (86%, n=38) did not have health insurance. While none of the women had health insurance, only 6% of men had health insurance. Considering employment, fourteen-percent had health insurance (four participants were 'employed for wages', while two were 'self-employed. All of these were men). Eighty-percent of participants did not have a primary care provider, and almost half (46%) could not see a doctor during the previous 12 months because of cost. Nevertheless, fifty percent participants declared they usually go to Benton Community Health Center (Corvallis) when they are sick or need a check-up. When visiting a doctor for a routine checkup, 25% said they visited a doctor within the past year. Interestingly, another 25% said they've never had a routine doctor visit. Regarding patient satisfaction, less than half (39%) was 'moderately satisfied', and 25% was 'very satisfied' with health care services received. Table 2 shows the bivariate relationships between various predictors and health outcomes. There were no significant relationships, except for sex and self-reported health. While only 36% of men reported having fair/poor health, the proportion of women with fair/poor health almost doubled (69%).

Physical Activity, Nutrition, Diabetes and Other Chronic Diseases

Eighty-nine percent (n=39) participated in any physical activities or exercises during the past month. This is consistent with 91% of participants who responded that there is a park, playground, or open space within walking distance of their home. Also, 73% (n=32) live within walking distance of a full-service grocery store (with fresh fruits, vegetables and meat). Thirty-six percent (n=16) eat typically in a day about three portions of fruits and vegetables while thirty-nine percent (n=17) eat about five or more portions of bread, tortillas, rice, pasta and cereals. In terms of previous chronic disease diagnosis, almost all participants said they have not been diagnosed with diabetes, heart attack, angina, stroke, or asthma. Similarly, the majority of participants did not present any problems when screened for blood pressure, visual acuity, glaucoma, diabetes, and audition.

Alcohol and Tobacco Consumption

Fifty-two percent (n=23) of participants said they had at least one drink of any alcoholic beverage during the past 30 days. The majority (n=20) of those that had a drink were men. The difference in alcohol consumption by sex was statistically significant (Pearson Chi-square=11.325, p<0.05). Seventy-five percent have not smoked at least 100 cigarettes in their entire life; and only 5% (n=2) now smoke 'some days'.

Discussion

Based on a convenience sample of Latinos, this paper found a number of relevant health issues that require further attention. Lack of health insurance and low income pose a strong financial barrier when trying to access health services.¹³ Both factors are affecting Latino participants. In this study, only 14 % of Latinos had health insurance. This is

consistent with findings by the Kaiser Commission on Medicaid and Uninsured (15%)¹⁴, and a recent study of farmworkers in the state of Washington (20%).¹⁵ This figure is significantly lower than the national average for low-income adults (63%).¹⁴ Moreover, only 25% of participants had income levels higher than the 2006 federal poverty level for a family of four (\$20,000).

Table 2. Relationship between demographic characteristics, and health outcomes.

	Self-reported fair/poor health	Food Insecure
Age [mean (SD)]	30.9 (10.79)	31.4 (9.0)
Sex [n (%)]		
Male	10 (35.7) [†] *	8 (28.6)
Female	11 (68.8)*	7 (43.8)
Educational level [n (%)]		
Never attended school or only attended kindergarten	2 (66.7)	2 (66.7)
Grades 1 through 8 (Elementary)	6 (75)	4 (50.0)
Grades 9 through 11 (Some high school)	9 (56.3)	4 (25.0)
Grade 12 or GED (High school graduate)	3 (21.4)	5 (35.7)
College 1 year to 3 years (Some college or technical school)	1 (50.0)	0 (0.0)
College 4 years or more (College graduate)	0 (0.0)	0 (0.0)
Employment status [n (%)]		
Employed for wages	13 (46.4)	7 (25.0)
Self-employed	1 (25.0)	2 (50.0)
Out of work for more than 1 year	0 (0.0)	0 (0.0)
A Homemaker	6 (60.0)	5 (50.0)
Refused	1 (100.0)	1 (100.0)
Marital status [n (%)]		
Married	9 (34.6)	9 (34.6)
Widowed	1 (100.0)	1 (100.0)
Separated	1 (100.0)	1 (100.0)
Never married	6 (54.5)	3 (27.3)
A member of an unmarried couple	4 (80.0)	1 (20.0)
Annual Household Income [n (%)]		
Less than \$10,000	5 (45.5)	6 (54.5)
\$10,000 to less than \$15,000	5 (50.0)	2 (20.0)
\$15,000 to less than \$20,000	4 (36.4)	3 (27.3)
\$20,000 to less than \$25,000	3 (75.0)	2 (50.0)
\$25,000 to less than \$35,000	3 (42.9)	1 (14.3)
Don't know / Not sure	1 (100.0)	1 (100.0)
Acculturation [n (%)]		
Less acculturated	17 (43.6)	12 (30.8)
More acculturated	1 (100.0)	0 (0.0)
Health insurance [n (%)]		
Insured	1 (16.7)	2 (33.3)
Uninsured	20 (52.6)	13 (34.2)

[†]The percentages shown in parenthesis refer to the corresponding predictor category. For instance, (35.7) means that 35.7% of men responded that their health was fair/poor.

* p<0.05.

Another sign of economic hardship for these Latino participants is evident by their food security status. In this study, 34 % of respondents were food insecure at some point during the past year. This figure is consistent with previous data on non-metropolitan residents in the Pacific Northwest, which found that 34.2% of Hispanics were food insecure, compared to only 12.4% among Non-Hispanics.¹⁶ The low socioeconomic status of Latino

participants may lead us to think that unhealthy behaviors or lifestyles may be prevalent. However, participants showed relatively high levels of physical activity and fruit consumption. This may be related to low levels of acculturation.¹⁷ This situation, called the “Hispanic health paradox”¹⁸ or “healthy migrant effect”, may apply here (it assumes that healthier, younger persons are more likely to emigrate). From a policy perspective, it is necessary to tackle socioeconomic, environmental factors (such as lack of insurance and income); and to promote the healthy behavioral factors shown by ‘less acculturated’ Latinos.

Limitations

The following caveats should be considered when interpreting the findings of this study. First, since variables were measured at a single point in time, no cause-effect relationships can be inferred. Second, we rely on respondent’s report of behavior rather than observation. Therefore, measurement error can be introduced by respondents’ inability to recall past events accurately, instability of their opinions, misunderstanding of questions, and lack of honesty in their answers (e.g. respondents might have tended to give “socially desirable” answers).¹⁹ Finally, generalizability is limited to survey respondents. In other words, given the method used to select participants, results may not be considered representative of Latinos living in Benton County or other rural areas.

Nevertheless, this pilot study used a quantitative and ‘culturally sensitive’ approach to analyze social, environmental, and behavioral factors affecting health and chronic disease status of Latinos living in Benton County, Oregon. The use of low-end personal digital assistants (PDAs) proved to be a valuable strategy for data collection. Low socioeconomic status (as depicted by low income and educational levels), health insurance status, and acculturation were relevant characteristics of this population. These factors may be influencing peoples’ self-reported health and food security status. Policymakers need to look more closely at these and other factors (e.g. language barriers)²⁰ when trying to improve access to health care and other social services, and promote healthy environments and behaviors.

References

1. Bussel R. *Understanding the Immigrant Experience in Oregon: Research, Analysis, and Recommendations from University of Oregon Scholars*. Eugene, OR: University of Oregon; 2008.
2. Hargraves JL, Cunningham PJ, Hughes RG. Racial and ethnic differences in access to medical care in managed care plans. *Health Services Research*. 2001;36(4):853-868.
3. Weiknick RM, Krauss NA. Racial/ethnic differences in children’s access to care. *American Journal of Public Health*. 2000;90(11):1771-1774.
4. Yu SM, Huang ZJ, Schwalberg RH, Kogan MD. Parental awareness of health and community resources among Immigrant families. *Maternal and Child Health Journal*. 2005;9(1):27-34.
5. Patton MM, Lopez-Cevallos DF, Edmunds LM, Rink EL, Harvey SM. Social and environmental determinants of Latino men’s health behavior: Results from a formative evaluation. *Midyear Scientific Conference of the Society for Public Health Educators (SOPHE)*. Las Vegas, NV; 2006.
6. Lopez-Cevallos DF, Patton MM. *Focus Group Analysis Report*. Corvallis: Benton County Health Department: Promotores de Salud Program, HIV Integration Project; September 30, 2006 2006.
7. Lopez-Cevallos DF. *Monroe Forum Report*. Corvallis, OR: Benton County Health Department; 2006.

8. Subramanian SV, Kawachi I. Whose health is affected by income inequality? A multilevel interaction analysis of contemporaneous and lagged effects of state income inequality on individual self-rated health in the United States. *Health & Place*. 2006;12(2):141-156.
9. Nord M, Andrews M, Carlson S. *Household Food Security in the United States, 2006*. Washington, DC: USDA Economic Research Service; 2007. ERR-49.
10. Marin G, Sabogal F, VanOss Marin B, Otero-Sabogal R, Perez-Stable EJ. Development of a short acculturation scale for Hispanics. *Hispanic Journal of Behavioral Sciences*. 1987;9(2):183-205.
11. Blaya J, Fraser HS. Development, implementation and preliminary study of a PDA-based bacteriology collection system. *AMIA Annu Symp Proc*. 2006:41-45.
12. Diero L, Rotich J, Bii J, et al. A computer-based medical record system and personal digital assistants to assess and follow patients with respiratory tract infections visiting a rural Kenyan health centre. *BMC Medical Informatics and Decision Making*. 2006;6(1):21.
13. Morales LS, Lara M, Kington RS, Valdez RO, Escarce JJ. Socioeconomic, cultural, and behavioral factors affecting Hispanic health outcomes. *Journal of Health Care for the Poor and Underserved*. 2002;13(4):477-503.
14. Kaiser Commission on Medicaid and the Uninsured. *Migrant and Seasonal Farmworkers: Health Insurance Coverage and Access to Care*. Washington, DC: Kaiser Family Foundation; 2005.
15. Washington State Farmworker Housing Trust. *A Sustainable Bounty: Investing in Our Agricultural Future. Washington State Farmworker Survey*. Seattle, WA: Washington State Farmworker Housing Trust; 2008.
16. Grussing J, Edwards M. *Non-Metropolitan Hunger and Food Insecurity In the Northwest*. Corvallis, OR: Oregon State University; 2006. RSP 06-02.
17. Lara M, Gamboa C, Kahramanian MI, Morales LS, Hayes Bautista DE. Acculturation and Latino Health in the United States: A Review of the Literature and its Sociopolitical Context. *Annual Review of Public Health*. 2005;26(1):367-397.
18. Hummer RA, Powers DA, Pullum SG, Gossman GL, Frisbie WP. Paradox found (again): Infant Mortality among the Mexican-origin population in the United States. *Demography*. 2007;44(3):441-457.
19. Singleton RA, Straits BC. *Approaches to Social Research*. 3rd ed. New York, NY: Oxford University Press; 1999.
20. Morales LS, Elliott M, Weech-Maldonado R, Hays RD. The Impact of Interpreters on Parents' Experiences with Ambulatory Care for Their Children. *Med Care Res Rev*. February 1, 2006 2006;63(1):110-128.

Appendix A: Questionnaire

Third Annual Benton County Health Department Soccer Tournament and Family Weekend Community Health Survey

HELLO, I work for Benton County Health Department. My name is **(name)**. We are gathering information about the health of Hispanic/Latino residents. I would like to ask you some questions about health and health practices.

I will not ask for your name, address, or other personal information that can identify you. You do not have to answer any question you do not want to, and you can end the interview at any time. Any information you give me will be confidential. If you have any questions about this survey, please call Tatiana Dierwechter, Health Promotion Manager at 541-766-6124.

Let's start.

1. Which of the following activities drew you to the event?

- 1 Soccer Tournament
- 2 Community Resource Fair
- 3 Lion's Mobile Screening Unit

2. Would you say that in general your health is?

- 1 Excellent
- 2 Very good
- 3 Good
- 4 Fair
- 5 Poor

3. How many times in the past year did you visit a health care provider for your own health?

_____ times

4. Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

5. Do you have one person you think of as your personal doctor or health care provider?

If "No," ask: "Is there more than one, or is there no person who you think of as your personal doctor or health care provider?"

- 1 Yes, only one
- 2 More than one
- 3 No
- 7 Don't know / Not sure
- 9 Refused

6. Where do you usually go when you are sick or need a checkup – to a doctor's office, a clinic, a hospital emergency room, or some other place?

- 1 Private Doctor's office
- 2 HMO facility
- 3 Benton Community Health Center
- 4 Community Outreach Inc.
- 5 Employer or company clinic
- 6 School or school-based-clinic (e.g. Lincoln health clinic)
- 7 Hospital outpatient clinic

- 8 Hospital emergency room
- 9 Urgent care center, urgi-care or walk-in facility
- 10 Some other place (Specify:_____)
- 77 Don't know / Not sure
- 99 Refused

7. Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

8. About how long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.

- 1 Within past year (anytime less than 12 months ago)
- 2 Within past 2 years (1 year but less than 2 years ago)
- 3 Within past 5 years (2 years but less than 5 years ago)
- 4 5 or more years ago
- 7 Don't know / Not sure
- 8 Never
- 9 Refused

9. In general, how satisfied or dissatisfied would you say you are with the services you have received from health care providers? Would you say:

- 1 Not satisfied
- 2 Slightly satisfied
- 3 Moderately satisfied
- 4 Very satisfied
- 5 Extremely Satisfied
- 7 Don't know / Not sure
- 9 Refused

Now I would like to ask you some questions about access to physical activity, food and vegetable consumption, and diabetes.

10. During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

11. Is there a park, playground, or open space within walking distance of your home?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refuse

12. Is there a full-service grocery store (with fresh fruits, vegetables and meat) within walking distance to your home?

- 1 Yes
- 2 No
- 7 Don't know / Not sure

9 Refuse

13. How many fruits and vegetables do you typically eat in a day? (Serving size is ¾ cup juice, ½ cup fruit or vegetables, or 1 medium-size fruit).

- 0 1 2 3 4 5+ Servings
- 7 Don't know / Not sure
- 9 Refuse

14. How many servings of bread, tortillas, rice, pasta and cereals do you typically eat in a day? (Serving size is 1 slice of bread, ½ cup of rice, ½ cup spaghetti noodles, ½ cup of cooked cereal, ¾ cup cold cereal, one 8-inch tortilla).

- 0 1 2 3 4 5+ Servings
- 7 Don't know / Not sure
- 9 Refuse

Now, I am going to read to you some answers giving by other people about their food situation. For each answer, please indicate if it has happened to you and/or your family often, sometimes, or never in **the past 12 months.**"

	Often ₂	Sometimes ₁	Never ₀	Don't know ₇	Refused ₉
15a. "I (we) were worry that we run out of food before we had enough money to buy more."					
15b. "The food I (we) bought did not last and there was not money to buy more food."					
15c. "(I/We) did not have enough to eat a nutritious meal."					

16. Have you ever been told by a doctor that you have diabetes (i.e. high blood sugar)?

If "Yes" and respondent is female, ask: "Was this only when you were pregnant?"

If respondent says pre-diabetes or borderline diabetes, use response code 4.

- 1 Yes
- 2 Yes, but female told only during pregnancy
- 3 No
- 4 No, pre-diabetes or borderline diabetes
- 7 Don't know / Not sure
- 9 Refuse

Now I would like to ask you some questions about heart disease and asthma.

Has a doctor, nurse, or other health professional EVER told you that you had any of the following? For each, tell me "Yes," "No," or you're "Not sure."

17. (Ever told) you had a heart attack, also called a myocardial infarction?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

18. (Ever told) you had angina (i.e. chest pain) or coronary heart disease?

- 1 Yes
- 2 No
- 7 Don't know / Not sure

9 Refused

19. (Ever told) you had a stroke (i.e. loss of blood supply to the brain)?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

20. (Ever told) you had asthma?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

Now I would like to ask you some questions about alcohol and tobacco consumption.

21. During the past 30 days, have you had at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor?

- 1 Yes
- 2 No **[Go to question 19]**
- 7 Don't know / Not sure **[Go to question 19]**
- 9 Refused **[Go to question 19]**

22. During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage?

- 1 ___ Days per week
- 2 ___ Days in past 30 days
- 8 8 8 No drinks in past 30 days
- 7 7 7 Don't know / Not sure
- 9 9 9 Refused

23. Have you smoked at least 100 cigarettes in your entire life?

NOTE: 5 packs = 100 cigarettes

- 1 Yes
- 2 No **[Go to question 21]**
- 7 Don't know / Not sure **[Go to question 21]**
- 9 Refused **[Go to question 21]**

24. Do you now smoke cigarettes every day, some days, or not at all?

- 1 Every day
- 2 Some days
- 3 Not at all
- 7 Don't know / Not sure
- 9 Refused

Now I would like to ask you some questions about general personal information.

25. What is your age?

- __ Code age in years
- 0 7 Don't know / Not sure
- 0 9 Refused

26. Are you Hispanic or Latino?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

27. Do you live in Benton County?

- 1 Yes
- 2 No
- 7 Don't know / Not sure
- 9 Refused

28. What is the highest grade or year of school you completed?

Read only if necessary:

- 1 Never attended school or only attended kindergarten
- 2 Grades 1 through 8 (Elementary)
- 3 Grades 9 through 11 (Some high school)
- 4 Grade 12 or GED (High school graduate)
- 5 College 1 year to 3 years (Some college or technical school)
- 6 College 4 years or more (College graduate)

Do not read:

- 9 Refused

29. Are you currently...?

Please read:

- 1 Employed for wages
- 2 Self-employed
- 3 Out of work for more than 1 year
- 4 Out of work for less than 1 year
- 5 A Homemaker
- 6 A Student
- 7 Retired

30. Are you...?

Please read:

- 1 Married
- 2 Divorced
- 3 Widowed
- 4 Separated
- 5 Never married

Or

- 6 A member of an unmarried couple

Do not read:

- 9 Refused

31. Is your annual household income from all sources?

If respondent refuses at ANY income level, code '99' (Refused)

- 1 Less than \$10,000
- 2 Less than \$15,000
(\$10,000 to less than \$15,000)
- 3 Less than \$20,000
(\$15,000 to less than \$20,000)
- 4 Less than \$25,000
(\$20,000 to less than \$25,000)
- 5 Less than \$35,000
(\$25,000 to less than \$35,000)
- 6 Less than \$50,000
(\$35,000 to less than \$50,000)
- 7 Less than \$75,000
(\$50,000 to less than \$75,000)
- 8 \$75,000 or more

32. In general, what language(s) do you read and speak?

- 1 Only Spanish
- 2 More Spanish than English
- 3 Both equally
- 4 More English than Spanish
- 5 Only English

33. What language(s) do you usually speak at home?

- 1 Only Spanish
- 2 More Spanish than English
- 3 Both equally
- 4 More English than Spanish
- 5 Only English

34. In which language(s) do you usually think?

- 1 Only Spanish
- 2 More Spanish than English
- 3 Both equally
- 4 More English than Spanish
- 5 Only English

35. What language(s) do you usually speak with your friends?

- 1 Only Spanish
- 2 More Spanish than English
- 3 Both equally
- 4 More English than Spanish
- 5 Only English

36. Indicate sex of respondent.

Ask only if necessary.

- 1 Male
- 2 Female

End of survey

Please read: Thank you for your participation!

[Remember to give participants a sticker and two raffle tickets.]