

## **Assessing the Potential of Increasing *Promotoras* in Extension: Hispanic Balanced Living with Diabetes**

### **Abstract**

A sustainable Extension model for promoting health and managing lifestyle-related chronic diseases in Hispanic populations would help mitigate health disparities in Hispanic communities. Hispanic Balanced Living with Diabetes (HBLD) is a type 2 diabetes lifestyle management program that we tested in Virginia. Through postintervention focus group discussions, we assessed barriers faced by Hispanics when accessing health care services, satisfaction with HBLD, and feasibility of training members of the Hispanic community to become *promotoras*, individuals who help facilitate adoption of healthful behaviors. Incorporating native Spanish speakers as educators and *promotoras* will ensure culturally relevant delivery of lifestyle modification programs, accurate communication of information, and development of trust with participants.

**Keywords:** [Extension](#), [Hispanics](#), [health promotion](#), [chronic disease](#), [promotoras](#)

### **Ivette Valenzuela-Yu**

Research Associate  
Department of  
Population Health  
Sciences  
[ivettev@vt.edu](mailto:ivettev@vt.edu)  
[@valenzuela\\_ivy](mailto:@valenzuela_ivy)

### **Kathryn Hosig**

Associate Professor;  
Director, Center for  
Public Health Practice  
and Research  
Department of  
Population Health  
Sciences  
[khosig@vt.edu](mailto:khosig@vt.edu)

### **Sarah Misyak**

Integrated Research-  
Extension, Food  
Systems, and Policy  
Coordinator  
Department of Human  
Nutrition, Foods, and  
Exercise  
[smisyak@vt.edu](mailto:smisyak@vt.edu)

Virginia Polytechnic  
Institute and State  
University  
Blacksburg, Virginia

## **Introduction**

The need to address health issues among Hispanics is essential. The 56 million Hispanics living in the United States in 2015 represented 17.6% of the U.S. population, and Hispanics are expected to represent 29% of the population by 2060 (Colby & Ortman, 2014; U.S. Census Bureau, 2016). In general, Hispanics face specific barriers that negatively affect their health outcomes (Hu, Amirehsani, Wallace, & Letvak, 2013), and, in particular, diabetes has been shown to be a leading cause of death for Hispanics (Domínguez et al., 2015). Developing culturally and linguistically appropriate initiatives is crucial for increasing equity and decreasing health disparities affecting Hispanics. To this end, we developed and conducted pilot testing on Hispanic Balanced Living with Diabetes (HBLD), a community-based type 2 diabetes lifestyle management program delivered in Virginia in 2013 and 2014. We held postintervention focus group discussions with participants to determine barriers faced by Hispanics when accessing health care services, satisfaction with HBLD, and feasibility of recruiting and training members of the Hispanic community to become *promotoras* to assist with HBLD. *Promotoras* are trusted members of the community who help facilitate adoption of healthful behaviors (Centers for Disease Control and Prevention [CDC], 2016; U.S. Bureau of Labor Statistics, 2010). This article includes suggestions for expanding the role of *promotoras* in Extension programs, particularly those related to diabetes and lifestyle-related chronic

disease.

## **Hispanics and Diabetes in the United States**

Hispanics face significant health disparities related to diabetes, including increased prevalence rates and decreased access to relevant health care. Diabetes prevalence for adults in the United States in 2012 was 9.3% overall but 12.8% for Hispanics (CDC, 2014). Moreover, it has been estimated that by 2031, 20.2% of adult Hispanics in the United States will have diabetes (Mainous et al., 2007). Among the relevant barriers faced by the Hispanic population are limited English proficiency, low educational attainment, low socioeconomic status, and lack of and/or reduced access to health care (Domínguez et al., 2015; Hu et al., 2013).

### **Cooperative Extension Culturally and Linguistically Appropriate Services**

Lifestyle modification can help individuals prevent and manage diabetes, specifically type 2 diabetes, which accounts for about 95% of cases of diabetes in the United States (American Diabetes Association, 2015). Lifestyle modification can result from receiving appropriate services. Hispanics who have received bilingual self-management training interventions in community settings have improved behavioral skills and glycemic control (Castillo et al., 2010) and have increased their self-efficacy for and knowledge about physical activity and healthful eating (Philis-Tsimikas, Fortmann, Lleba-Ocana, Walker, & Gallo, 2011). Clearly, focusing on cultural and linguistic appropriateness is imperative to improving the quality of services delivered and decreasing ethnic and racial health care disparities (Koh, Gracia, & Alvarez, 2014). With regard to Extension nutrition programming specifically, culturally and linguistically appropriate programs are needed to reach diverse communities (Robinson, Anding, Garza, & Hinojosa, 2003). Indeed, Extension has recognized the challenge of growing diversity among populations targeted for programming and the importance of increasing both the number of minority Extension family and consumer sciences professionals and cultural competency professional development for Extension personnel (Atilas & Eubank, 2014; Behnke, 2008). A promotora model is promising for enabling Extension to provide culturally relevant programming that addresses prevention and management of type 2 diabetes in Hispanic populations.

### **Promotora Involvement in Extension Programs**

The role of a promotora includes delivering culturally and linguistically appropriate services and advocating for clients. Promotoras assist with translation and interpretation of curricula and educate and mentor community members (Rural Health Information Hub, 2017). Promotoras are lay health workers who are members of the community; they share the language and socioeconomic and cultural characteristics of the members of the community they are working with (Rural Health Information Hub, 2017). Some Extension programs already use the promotora model by recruiting community members and training them to deliver Extension programming. These programs vary in scope and focus and include delivering interventions to prevent birth defects in Hispanic children in South Texas, developing youth programs in California, and establishing a partnership between the National Institute of Food and Agriculture and the U.S Department of Housing and Urban Development (Gregory et al., 2006; Maring, Singer, & Shenassa, 2011; Robinson et al., 2003).

## **Methods**

To address the need to provide Hispanics with culturally and linguistically appropriate lifestyle modification

education related to type 2 diabetes, we developed HBLD. HBLD is based on Balanced Living with Diabetes, which was adapted by Virginia Cooperative Extension from Dining with Diabetes, a program originally developed by West Virginia Cooperative Extension (Chapman-Novakofski & Karduck, 2005). HBLD is a culturally sensitive program that is taught in Spanish and comprises Spanish-language educational materials. HBLD was adapted by our first author—a bilingual Salvadoran doctoral student in public health with training and credentials in medicine and nursing. It was verified as suitable for a wide range of Spanish cultures by a bilingual Mexican faculty member in our university's English department who specializes in technical communication and has served as director of professional writing. Four weekly sessions lasting approximately 2.5 hr each target lifestyle-related management of type 2 diabetes. Each session includes an interactive presentation by a diabetes educator (covering information on diabetes self-management, the plate method for carbohydrate control, portion sizes, food labels, heart healthy eating, dining out and recipe modification, and exercise) followed by demonstration and tasting of healthful recipes.

We conducted pilot testing of HBLD in partnership with four Catholic churches in 2013–2014. The aforementioned Salvadoran doctoral student taught the class sessions, and a local English-speaking Extension agent conducted the food demonstrations, with interpretation in Spanish by the Salvadoran doctoral student.

As part of the pilot testing, we conducted one focus group discussion at each of three of the participating churches. Participants were recruited at the last class session by a Hispanic coordinator at the church. Focus group members were required to be participants in HBLD, Spanish speakers, Hispanic, and 21 years or older. The focus group sessions involved 25 individuals, group size for each session was eight or nine, and 62% of the participants were female. The research protocol was approved by the Virginia Polytechnic Institute and State University Institutional Review Board. Informed consent forms were provided in Spanish and read and explained to participants before the beginning of each focus group session. Participants were not remunerated.

Field and content experts, including bilingual researchers on and external to our author team, developed the focus group discussion questions. The discussions were designed to (a) identify barriers and challenges regarding access to health care and health education faced by the Hispanic population, (b) provide formative evaluation of HBLD, and (c) assess the perceived value and feasibility of recruiting and training members of the Hispanic community to become HBLD promotoras. The primary questions are shown in Table 1.

**Table 1.**

Primary Focus Group Discussion Questions

<b>Topic</b>	<b>Questions</b>
Access to health services and health education	<p>Do you have a doctor or other health care professional that you go to for checkups?</p> <p>Do you have access to a doctor or health center when you are sick?</p> <p>To whom do you go when you have questions about your health or your family's health?</p> <p>What makes it difficult for you to get help when you need to see a doctor or have questions about your health or your family's health?</p> <p>What could make it easier for you to get help when you need to see a doctor or have questions about your health or your family's health?</p>

	<p>Are you satisfied with the health services available in your area?</p> <p>What would make it easier to visit a doctor or find a health center for you and/or your family?</p> <p>What kind of resources do you use to learn about health in general?</p> <p>Where can Hispanics get free food in your community if they need it?</p>
Hispanic	What did you like about the HBLD program?
Balanced Living	What did you not like about the HBLD program?
with Diabetes	Was having a Spanish-speaking educator helpful?
(HBLD)	<p>Would you still come to the class if the teacher spoke English but someone translated into Spanish?</p> <p>Would you still come to the class if you had to have health insurance to attend?</p> <p>Would you still come to the class if you had to pay for it?</p> <p>Would you still come to the class if it were in a place other than church?</p>
Promotoras	<p>Do you think a trained promotora could help people in the Hispanic community find the medical help they need?</p> <p>Would you ask a Hispanic community member who was trained as a promotora for help in finding medical care and nutrition information?</p> <p>Do you think other people you know would like to talk with promotoras?</p> <p>Please describe a person who would be a good promotora.</p> <p>Do you think it would be easy or difficult to find a person interested in serving as a promotora within the Hispanic community?</p> <p>Do you know Hispanic people in your community who might be good promotoras and might be willing to serve as promotoras? What would make them be willing to do this?</p>

---

A trained facilitator and comoderator led each focus group discussion in Spanish, following a protocol outlined by Krueger and Casey (2014). Focus group discussions lasted 60 to 90 min. Sessions were audio-recorded, transcribed verbatim in Spanish, and then translated to English independently line by line by two bilingual researchers (our first author and a researcher external to our author team). Supplemental field notes were taken in English by the bilingual comoderator. We assigned a letter of the alphabet to each participant in place of his or her name.

A member of our research team with expertise in analyzing qualitative data coded emergent themes for each topic from the English transcripts (Creswell, 2007; Massey, 2011). A second team member reviewed the transcripts, field notes, and emergent themes, and discrepancies were rectified through consensus. A bilingual research team member reviewed the original Spanish transcripts to identify quotes to exemplify the emergent themes.

## **Results and Discussion**

We found that lack of awareness about healthful foods and physical activity and lack of Spanish-language educational programs and materials prevented participants from using nutritional or health education services. Additionally, lack of health insurance was cited as a major barrier to obtaining primary and secondary preventive services for Hispanics. With regard to cultural and linguistic aspects of the HBLD programming, major themes included the importance of having a Spanish-speaking educator, essential characteristics of promotoras, and considerations for recruiting promotoras. Results are summarized in Table 2.

**Table 2.**

Selected Themes and Sample Quotations by Focus Group Discussion Topic

<b>Topic</b>	<b>Theme</b>	<b>Sample quotations</b>
Access to health services and health education	Language	"I think that as Hispanics, if we do not speak English, we face a big obstacle. Sometimes at the hospitals, there is no translators, and that makes it harder to find a doctor."
	Health insurance and health care costs	"I think that medical insurance plays a high role here, because most of us do not have it and we look for places where we can pay with cash so that we do not have a coming bill to pay."
	Willingness to pay for health care and educational access	"Charge something, but it depends on who can have access based on what it costs."
Hispanic Balanced Living with Diabetes	Value of Hispanic Spanish-speaking educator and promotora	"We feel more confident and can explain ourselves better" "She understands us, and we understand her"
	Promotoras	Barriers for recruiting and training community members as volunteer promotoras Characteristics of effective promotoras
		"It's not easy because people who have those characteristics generally have work and are very busy." "Needs to receive a salary" "Must be kind" "Must speak both languages"

Our results highlight the potential benefit and impact of having Spanish-speaking educators teach Extension programs for Hispanics. An Extension program that is taught or facilitated by a native Spanish speaker and includes involvement of a promotora will provide culturally and linguistically appropriate health and nutrition education and foster ongoing communication with participants. Thus, participants will be more likely to engage in lifestyle modification to reduce the risk of and to manage type 2 diabetes and other lifestyle-related chronic diseases. Promotoras, who should be bilingual, bicultural, and trustworthy, can ensure cultural sensitivity,

increase recruitment and retention of participants, help with assessments and course activities, and connect participants with local resources.

## Conclusions and Implications

Although some Extension programs already use the promotora model to provide culturally and linguistically appropriate services targeting Hispanics (Gregory et al., 2006; Maring et al., 2011; Robinson et al., 2003), the model can be adopted more broadly to facilitate lifestyle change and thereby help mitigate health disparities and increase health care equity among minorities. In developing promotora programs, Extension personnel should consider barriers to recruiting community members as promotoras. Promotoras should be compensated for their time, as they might need such income to support their families. Additionally, Extension practitioners can consider the characteristics of effective educators and promotoras identified through our study when developing new programming that targets health-disparate populations. Incorporating effective native Spanish speakers as educators and promotoras as facilitators will ensure not only that accurate information is provided but also that educators are aware of culturally appropriate ways to deliver lifestyle modification programs for type 2 diabetes and other lifestyle-related chronic diseases. Participants may feel more trusting of educators they identify with and, therefore, may be more receptive to the information provided and more willing to participate. Additionally, participants may feel more certain that their questions are fully understood and that the responses of educators are appropriate. Overall, the strong connections between participants and community resources that can be fostered by Spanish-speaking educators and promotoras are likely to further enhance the effectiveness of Extension programming for the growing Hispanic population.

## Acknowledgments

First, we would like to thank Karina Chavez for facilitating the focus group discussions. We also would like to thank the focus group participants and the Hispanic coordinators of each participating church.

## References

- American Diabetes Association. (2015). Infographics. Retrieved from <http://www.diabetes.org/diabetes-basics/statistics/infographics.html>
- Atilas, J., & Eubank, G. (2014). Family & consumer sciences and Cooperative Extension in a diverse world. *Journal of Extension*, 52(3), Article 3COM1. Available at: <http://www.joe.org/joe/2014june/comm1.php>
- Behnke, A. O. (2008). Expanding the Latino market niche: Developing capacity and meeting critical needs. *Journal of Extension*, 46(5), Article 5RIB5. Available at: <http://www.joe.org/joe/2008october/rb5.php>
- Castillo, A., Giachello, A., Bates, R., Concha, J., Ramirez, V., Sanchez, C., . . . Arrom, J. (2010). Community-based diabetes education for Latinos. *The Diabetes Educator*, 36(4), 586–594.
- Centers for Disease Control and Prevention. (2014). *National diabetes statistics report: Estimates of diabetes and its burden in the United States, 2014*. Atlanta, GA: U.S. Department of Health and Human Services.
- Centers for Disease Control and Prevention. (2016). *Community health workers resources*. Retrieved from <https://www.cdc.gov/stltpublichealth/chw/index.html>
- Chapman-Novakofski, K., & Karduck, J. (2005). Improvement in knowledge, social cognitive theory variables, and movement through stages of change after a community-based diabetes education program. *Journal of the*

*American Dietetic Association*, 105(10), 1613–1616.

Colby, S. L., & Ortman, J. M. (2014). Projections of the size and composition of the U.S. population: 2014 to 2060 (Current Population Reports, P25-1143). Washington, DC: U.S. Census Bureau.

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage Publications.

Domínguez, K., Penman-Aguilar, A., Chang, M. H., Moonesinghe, R., Castellanos, T., Rodriguez-Lainz, A., & Schieber, R. (2015). Vital signs: Leading causes of death, prevalence of diseases and risk factors, and use of health services among Hispanics in the United States—2009–2013. *Morbidity and Mortality Weekly Report*, 64(17), 469–478.

Gregory, P., Camarillo, J., Campbell, D., Dasher, S., King, N., Mann, M., . . . Willmarth, K. (2006). Learning from Latino community efforts. *Journal of Extension*, 44(3), Article 3FEA3. Available at: <https://www.joe.org/joe/2006june/a3.php>

Hu, J., Amirehsani, K., Wallace, D. C., & Letvak, S. (2013). Perceptions of barriers in managing diabetes perspectives of Hispanic immigrant patients and family members. *The Diabetes Educator*, 39(4), 494–503. doi:10.1177/0145721713486200

Koh, H. K., Gracia, J. N., & Alvarez, M. E. (2014). Culturally and linguistically appropriate services advancing health with CLAS. *The New England Journal of Medicine*, 371(3), 198–201.

Krueger, R. A., & Casey, M. A. (2014). *Focus groups: A practical guide for applied research*. Thousand Oaks, CA: Sage Publications.

Mainous, A. G., III, Baker, R., Koopman, R. J., Saxena, S., Diaz, V. A., Everett, C. J., & Majeed, A. (2007). Impact of the population at risk of diabetes on projections of diabetes burden in the United States: An epidemic on the way. *Diabetologia*, 50(5), 934–940.

Maring, E. F., Singer, B. J., & Shenassa, E. (2011). Healthy Homes: A contemporary initiative for Extension education. *Journal of Extension*, 49(2), Article 2FEA9. Available at: <http://www.joe.org/joe/2011april/a9.php>

Massey, O. T. (2011). A proposed model for the analysis and interpretation of focus groups in evaluation research. *Evaluation and Program Planning*, 34(1), 21–28.

Philis-Tsimikas, A., Fortmann, A., Lleba-Ocana, L., Walker, C., & Gallo, L. C. (2011). Peer-led diabetes education programs in high-risk Mexican Americans improve glycemic control compared with standard approaches—A Project Dulce promotora randomized trial. *Diabetes Care*, 34(9), 1926–1931.

Robinson, S. F., Anding, J., Garza, B., & Hinojosa, I. (2003). Designing nutrition education programs to reach Mexican American populations. *Journal of Extension*, 41(1), Article 1IAW2. Available at: <http://www.joe.org/joe/2003february/iw2.php>

Rural Health Information Hub. (2017). Community health workers toolkit. Retrieved from <https://www.ruralhealthinfo.org/community-health/community-health-workers>

U.S. Bureau of Labor Statistics. (2011). Standard occupational classification. Retrieved from <https://www.bls.gov/soc/2010/soc211094.htm>

U.S. Census Bureau. (2016). Facts for features: Hispanic Heritage Month 2016. Retrieved from <https://census.gov/newsroom/facts-for-features/2016/cb16-ff16.html>

---

*Copyright* © by *Extension Journal, Inc.* ISSN 1077-5315. Articles appearing in the Journal become the property of the Journal. Single copies of articles may be reproduced in electronic or print form for use in educational or training activities. Inclusion of articles in other publications, electronic sources, or systematic large-scale distribution may be done only with prior electronic or written permission of the *Journal Editorial Office*, [joe-ed@joe.org](mailto:joe-ed@joe.org).

If you have difficulties viewing or printing this page, please contact [JOE Technical Support](#)