

Availability of Spanish Prescription Labels

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Abstract: The research team conducted a cross-sectional telephone survey of all pharmacies in the Bronx, New York (99.4% participation rate) to determine availability of Spanish prescription labels. One hundred twenty five pharmacies (78%) were small independent pharmacies; 36 (22%) were large-chain pharmacies. Overall, 111 (69%) stated that they could provide prescription labels in Spanish. Overall, for all the pharmacy ZIP codes, the mean proportion of the population that was Spanish-speaking was 46.8% (range 11% to 71.6%). Seventy-eight (48%) pharmacies were located in areas where more than 50% of the population were Spanish-speaking, 48 (30%) were located in areas with 25.1–50% Spanish-speakers, and 35 (22%) were in areas with up to 25% Spanish-speakers. Small independent pharmacies were more likely than large chain pharmacies to provide prescription labels in Spanish (71% vs. 61%, $p=0.25$). All the pharmacists commented that a patient must specifically request a Spanish prescription label in order to receive one. Pharmacies located in areas with the highest proportion of Spanish speakers were more likely to provide prescription labels in Spanish (82% vs. 62% vs. 49%; $p=.001$). Of the 111 pharmacies that could provide Spanish labels, 95 (86%) used a computer program to perform the translation and 16(14%) used a lay employee. Of pharmacies using a computer program, only one had a Spanish-speaking pharmacist who could check and correct the computer translations.

Key words: Prescription labels, Spanish, translation, interpretation, Latino.

In 1999, the Institute of Medicine reported that medical errors are responsible for up to 98,000 deaths per year in the United States. One of their main conclusions was that the majority of errors are due to poor systems in health care, and not individual mistakes by medical providers. The report recommended that the U.S. government establish and fund a Center for Patient Safety within the Agency for Healthcare Research and Quality. A major goal of this center would be to finance research to evaluate methods for identifying and preventing errors and to improve patient safety.¹

One increasingly important potential source of medical errors is that of communication where there are language barriers.²⁻⁵ The contribution of language barriers to medical errors has been documented for Spanish-speaking populations,⁶ although federal law obligates hospitals and health centers to provide linguistically

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appropriate medical services.⁷ Because Spanish-speaking immigrants constitute the largest growing minority group in the United States, many health centers and hospitals routinely translate their health information materials into Spanish. However, no studies have documented whether pharmacies in areas where a large proportion of the population is Spanish-speaking dispense medication prescription labels in Spanish. In this brief report, we describe a pilot study to determine the availability of Spanish prescription labels in a county with a large Spanish-speaking population. The Institutional Review Board of Montefiore Medical Center granted approval for the study.

Methods

We conducted a cross-sectional telephone survey of all pharmacies in the Bronx, New York. According to U.S. Census 2002 American Community Survey, 43% percent of the Bronx population is Spanish-speaking; of Spanish-speakers, 44% speak English "less than very well."⁸ We used the Verizon Online Superpages, a telephone directory of commercial establishments, to identify all pharmacies in the Bronx.

During February 2004, an investigator phoned each pharmacy and asked to speak with the pharmacist. She introduced herself as a medical student looking for a pharmacy that could provide prescription labels written in Spanish. Using a structured survey, the pharmacist was asked whether she/he could provide such labels, and if so, what method was used to provide the translation. (See Appendix.) Each pharmacy's ZIP code was recorded.

Responses to the question about provision of Spanish labels were coded dichotomously as yes/no. For each pharmacy, we used its ZIP code as a proxy for the proportion of the surrounding population that was Spanish-speaking according to the U.S. Census 2000. Pharmacies were categorized into three demographic groups according to the ZIP code data: up to 25%, 25.1–50%, and more than 50% Spanish-speaking. We compared the availability of Spanish prescription labels among the three groups.

Results

We identified 162 pharmacies in the Bronx; of these, 161 (99.4%) participated. One hundred twenty five pharmacies (78%) were small independent pharmacies; 36 (22%) were large-chain pharmacies. Overall, 111 (69%) stated that they could provide prescription labels in Spanish. Small independent pharmacies were more likely than large chain pharmacies to provide prescription labels in Spanish (71% vs. 61%, $p=0.25$). All the pharmacists commented that a patient must specifically request a Spanish prescription label in order to receive one.

Overall, for all the pharmacy ZIP codes, the mean proportion of the population that was Spanish-speaking was 46.8% (range 11% to 71.6%). Seventy-eight (48%) pharmacies were located in areas where more than 50% of the population were Spanish-speaking, 48 (30%) were located in areas with 25.1–50% Spanish-speakers, and 35 (22%) were in areas with up to 25% Spanish-speakers. Pharmacies located in areas with the highest proportion of Spanish speakers were more likely to provide

Table 1.**AVAILABILITY OF SPANISH PRESCRIPTION LABELS AMONG 161 PHARMACIES IN THE BRONX, NEW YORK**

	Spanish Labels Available N(%)	P value
Overall (N=161)	111 (69)	—
Type of Pharmacy		
Small, independent pharmacies (n=125)	89 (71)	p=.25
Large- chain pharmacies (n=36)	22 (61)	
% Population Spanish speaking		
>50% Spanish speaking (n=78)	64 (82)	p=.001
25.1–50% Spanish speaking (n=48)	30 (62)	
≤25% Spanish speaking (n=35)	17 (49)	

Note: Pharmacists responded to a structured telephone survey. Chi-squared statistics were used to compare the availability of Spanish prescription labels among groups.

prescription labels in Spanish (82% vs. 62% vs. 49%; $p=.001$). Of the 111 pharmacies that could provide Spanish labels, 95 (86%) used a computer program to perform the translation and 16 (14%) used a lay employee. Of pharmacies using a computer program, only one had a Spanish-speaking pharmacist who could check and correct the computer translations.

Discussion

We found that prescription labels written in Spanish were available in the Bronx, especially in areas that had the higher proportions of Spanish-speaking people in the local population. We also found that pharmacies often used computer programs to translate prescriptions. Only one pharmacy employed a Spanish-speaking pharmacist that could check the translations.

This study is limited by the self-report telephone survey; we did not verify the information given by visiting all the pharmacies. However, if the person interviewed gave false information, the bias probably would have been to over-report the availability of Spanish prescription labels, making our findings of greater rather than lesser concern. Also, because we only surveyed pharmacies in one county in the United States, our findings cannot be generalized to other areas. We recommend that health providers in other counties with large immigrant populations conduct similar surveys of the pharmacies that serve their patients. Anecdotally, we found that computer translations may not be adequate. As a follow-up to this study, we visited one of the large chain pharmacies, and discovered that the computer could not translate some commonly used terms, such as *dropperful*, or *for thirty days*.

As a consequence of the Institute of Medicine report on medical errors, many institutions now involve pharmacists to guide physician orders during hospital rounds.⁹⁻¹⁰ Additionally, community pharmacists are important providers of health education to patients.¹¹⁻¹² An important next step in the reduction of medical errors will be to collaborate with pharmacists to provide linguistically appropriate information to patients with limited proficiency in English.

Our findings have several implications. Physicians should advise Spanish-speaking patients to request that pharmacies print their medication labels in Spanish, and should include that request on the prescription. However, we advise that physicians not rely on the availability of Spanish medication labels as evidence that the instructions will be easily translated and understood by patients. Further study is needed to determine the adequacy of current computer translations of medication prescription labels, and to develop and implement systems to improve the use and effectiveness of such translations. Finally, we suggest that advocacy groups investigate ways to increase the representation of Spanish-speaking pharmacists in underserved areas with large Spanish-speaking populations.

Notes

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Appendix

Structured Survey

ID _____

Type of Pharmacy

- Chain (CVS, Rite-Aid, Duane-Read, Genovese, Pathmark, etc.)
 Independent

Zip Code (from phone book) _____

Hello, my name is _____, and I am a medical student at Montefiore Medical Center. We have a lot of patients who speak Spanish, so I am trying to find pharmacies that can provide prescription labels written in Spanish. Is your pharmacy able to do this?

No → END

Yes → That's great, how do you translate the prescriptions into Spanish?

If responds *computer*, then:

Do you also have someone at the pharmacy who speaks Spanish and can check what the computer prints?

No → END

Yes → Who is that person? _____

If responds *we have someone translate the prescription*

→ Who is that person? _____

Comments: _____