Data from the study indicate that Spanish-speaking Latinos were 72% less likely to receive SoC recommendations than English speakers. This finding highlights the importance of addressing language barriers in the context of depression treatment recommendations, with the goal of ensuring equitable care for all patients, regardless of ethnicity or language.
ers that receive funds from the HRSA Health Center Program to provide primary care services in underserved areas.” FQHCs may be community health centers and must meet a stringent set of requirements for continuation of funding, including annual reporting on a set of clinical quality measures such as the rate of annual depression screening with a standardized assessment tool, and, if positive the documentation of a follow-up plan. FQHCs often follow guidelines from the United States Department of Health and Human Services, Agency for Healthcare Research and Quality to meet these clinical quality metrics; however, these guidelines do not specifically address potential culturally sensitive concerns in screening and followup for mental health diagnoses. The recommended evidence-based guideline for depression screening, diagnosis, treatment, and followup from the Institute for Clinical Systems Improvement (ICSI) does include cultural considerations (religion, health care beliefs, effective communication, etc.) when implementing depression-screening and follow-up processes that are of importance for Latino patient populations.

The United States Census Bureau reports that Latinos comprise approximately 17% (54 million) of the total US population. However, Latinos are poorly represented in large clinical studies of depression, usually due to language exclusion criteria. Approximately 55% of the adult Latino population reports Limited English Proficiency in the United States; therefore, significant linguistic barriers exist for high-quality screening, diagnosis, treatment, and management of depression in this population. Additional barriers to depression treatment uptake faced by Spanish-speaking Latinos include medication and psychotherapy costs, transportation, low English literacy levels, lack of Spanish-speaking therapists, distrust of medical providers, as well as a loss of social support to seek diagnosis and treatment due to immigration and acculturation issues. Being consistently screened for depression symptoms and receiving standard of care (psychotherapy/pharmacotherapy) treatment recommendations when appropriate during a medical visit are necessary components of high-quality care that may vary by cultural group due to these other contextual concerns.

The present mixed-methods study participants are a subset of patients from a larger study conducted by the authors. The larger study (2017) analyzed administration and screening outcomes of a standardized, brief depression-screening tool, the Patient Health Questionnaire–2 (PHQ-2) in an FQHC setting with integrated behavioral health. Of the 10,285 adult patients seen during a medical visit in 2014 and/or 2015, only 46% (4745) were screened for depression with the PHQ-2. Results found higher screening rates for Latinos, yet Spanish speakers were 31% less likely to screen positive on the PHQ-2 compared with English speakers regardless of ethnicity. The larger study helped to inform the design of the present study, whose purpose is to add valuable information to the few culturally and linguistically inclusive studies examining depression treatment recommendations for Latino populations scoring 10 or greater on the PHQ-9 and in need of a primary care provider (PCP) treatment recommendation. Specifically, we examine here whether language and/or ethnicity impact PCP’s standard of care recommendations for treatment of depression. The results of this study can inform physicians, health care organizations, and mental health providers of the need to consider cultural and linguistic factors affecting depression screening and depression treatment in Latinos.

Methods

Participants

Quantitative Participants

A mixed-methods design was used to explore standard of care depression treatment recommendations for patients screened for depression at an FQHC that treats patients insured primarily with a Medicaid Health Maintenance Organization health plan. First, a chart review was conducted for 275 patients who screened positive for depression during a medical visit to examine the treatment recommendations prescribed by their PCP. This was approved as an expedited archival chart audit by the institutional review board to obtain access to electronic medical records for eligible FQHC patients. The first author conducted an electronic chart review and included patients who screened ≥10 on the PHQ-9 during any medical visit in 2014 to 2015, reported their ethnicity as either Latino or Non-Latino, reported their preferred language as either English or Spanish. Chart audits of these 275 patients were completed to ascertain the PCP’s
treatment recommendations in the Plan section of the visit note linked to depression diagnosis.

**Qualitative Participants**

Qualitative interviews were conducted, through purposive sampling assuring triangulation, to explore standard of care depression treatment recommendations through an ethnic-linguistic analysis for 18 patient participants and 7 PCP participants. Six English-speaking non-Latinos (3 males and 3 females), 6 English-speaking Latinos (1 male and 5 females), 6 Spanish-speaking Latinos (1 male and 5 females), and 7 PCP’s (2 males and 5 females) participated in the interviews. Patients were recruited with flyers and scripted invitations by nursing staff after clinic visits. Potential participants contacted the research team and were subsequently consented and interviewed within 2 months of recruitment, allowing the patients time for treatment recommendation uptake. Participants were offered a $5 gift card for their time.

**Procedures**

**Quantitative Procedures**

Data were deidentified and stored in a password-protected spreadsheet on a secure server. Data collected included gender (male or female), ethnicity (Latino or non-Latino), race (white or not white), language preference (English or Spanish), PHQ-9 scores, and PCP depression treatment recommendations (pharmacotherapy medication prescribed, in-house or outpatient psychotherapy referral, or both). Quantitative data were analyzed using SPSS, version 23.0 (IBM, Armonk, NY) to conduct a binary logistic regression analysis.

**Qualitative Procedures**

We used the qualitative research method by Charmaz and Belgrave (2012). The primary author received permission to modify the interview guide of Horevitz, Organista, and Arean to align the questions with the FQHC’s integrated setting. The FQHC utilizes Integrated Behavioral Health Specialists to provide same-day behavioral health triage and followup in a medical setting to reduce stigma of mental health treatment and to integrate mental health care within the primary care team for more effective and high-quality patient care experiences.

Qualitative interviews lasting 30 to 40 minutes were conducted in English and Spanish by a bilingual, qualitatively trained interviewer using a semi-structured key informant guide to explore patient responses to the PCP recommendations, follow-up engagement of the treatment recommendations, and reasons for their treatment recommendation responses.

Member checking is a technique used to improve internal validity; the process provides a forum to check the viability of the themes created by researchers, correct results, and assess the accuracy of the data reported. For member checking, we conducted validation focus groups with 4 participants from each patient subgroup and 9 providers. Patient focus groups included both interview participants and new eligible patients. Provider focus groups also included both interview participants and new eligible PCPs.

Both interviews and focus groups were audio recorded and transcribed verbatim. Spanish-language transcripts were translated by a certified translator and back translated to ensure language equivalency. Inductive and deductive methods were used to analyze the interviews. A literature review provided deductive themes to form hypotheses while inductive methods allowed themes to emerge in the development of a codebook. The interview data were coded with Qualitative Data Analysis Miner, Version 5 (Montreal, Canada) using grounded theory. All transcripts were coded by 2 coders and agreement/disagreement was explored with constant comparison methods, reaching 94% congruence. The codebook reflected both theoretical and emergent themes from interviews. The authors explored how a positive, negative, or neutral perception of psychotherapy and pharmacotherapy may have differed between and among groups.

**Measures**

**Patient Health Questionnaire–9**

The Patient Health Questionnaire–9 (PHQ-9) is an instrument based on DSM-V diagnostic criteria for depression, designed for use in primary care settings that includes 2 items from the short form (PHQ-2) and 7 additional items rated on a 4-point Likert scale (0-not at all to 3-nearly every day). A PHQ-9 cut-score of 10 has an 88% sensitivity and 88% specificity for the diagnosis.
of major depressive disorder. The PHQ-9 has been validated as a tool for both detecting and monitoring depression in primary care settings. The PHQ-9 has been validated for use in primary care settings and is comparable when tested with Latino and non-Latino patient groups.

Major Depressive Disorder Treatment Recommendations

To identify the PCP follow-up treatment recommendations and the uptake of the recommendations by the patient, the electronic medical record was queried for behavioral health follow-up appointments in the FQHC and prescriptions for antidepressants in the medication list. The Institute for Clinical Systems Improvement’s Health Care Guideline: Depression in Primary Care (referred to as the FQHC Standard of Care throughout this manuscript) specifies that patients with a score of ≥10 on the PHQ-9 should receive treatment recommendations of combined psychotherapy and pharmacotherapy. The study clinic site has a written guideline based on ICSI recommendations in collaboration with an Integrated Behavioral Health Specialist available on-site: provide same-day behavioral health consults, diagnosis, and treatment recommendations during the medical visit. Chart audits of the Plan section of the PCP visit note (for the visit when depression was diagnosed) was coded as YES standard of care recommended/prescribed (psychotherapy/pharmacotherapy) versus NO standard of care was not recommended/prescribed (psychotherapy only, pharmacotherapy only, education/breathing exercises/physical exercise, or no recommendation).

Although the study site uses ICSI as a basis for their internal depression screening guideline, the ICSI guideline differs from many other guidelines in that combined treatment is recommended for all patients, even those with only mild-to-moderate depression. The guideline actually indicates that the marginal gain is relatively small and that in many patients, initial monotherapy with psychotherapy or pharmacotherapy may not only be what is feasible but also appropriate; thus, the authors also conducted a sensitivity analysis by coding those that received either psychotherapy or pharmacotherapy recommendations as YES.

<table>
<thead>
<tr>
<th>Variables</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age [SD], years</td>
<td>44.92 [13.61]</td>
</tr>
<tr>
<td>Mean PHQ-9 [SD], score</td>
<td>18.10 [4.32]</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>202 (73.5)</td>
</tr>
<tr>
<td>Male</td>
<td>73 (26.5)</td>
</tr>
<tr>
<td>Race</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>171 (62.2)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>43 (15.6)</td>
</tr>
<tr>
<td>Asian</td>
<td>4 (1.5)</td>
</tr>
<tr>
<td>American Indian/Alaskan</td>
<td>5 (1.8)</td>
</tr>
<tr>
<td>Native Hawaiian/Pacific</td>
<td>1 (0.4)</td>
</tr>
<tr>
<td>Islander</td>
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<tr>
<td>More than one race</td>
<td>4 (1.5)</td>
</tr>
<tr>
<td>Unknown/not reported</td>
<td>47 (17.1)</td>
</tr>
<tr>
<td>Patient ethnicity</td>
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</tr>
<tr>
<td>Latino</td>
<td>135 (49.1)</td>
</tr>
<tr>
<td>Not Latino</td>
<td>140 (50.9)</td>
</tr>
<tr>
<td>Patient’s preferred language</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>248 (90.2)</td>
</tr>
<tr>
<td>Spanish</td>
<td>27 (9.8)</td>
</tr>
</tbody>
</table>

Results

Chart Review

Table 1 provides demographic characteristics for 275 patients included in the study. Participants’ ages ranged from 18 to 85 years (μ = 44.92; SD = 13.61). The majority of patients were female (73.5%), white (62.2%), English speakers (90.2%), and about half of the participants were Latino (49.1%). Mean PHQ-9 score was 18.10 (SD = 4.32), indicating moderate to severe depression. About half of patients received combined psychotherapy/pharmacotherapy treatment recommendations (48.4%), whereas 44% of patients received monotherapy recommendations (96 received psychotherapy only and 27 received pharmacotherapy only). The remaining 7% of patients received PCP psychoeducation-based interventions, such as physical activity counseling, breathing exercises, or depression education.

A binary logistic regression analysis was conducted to assess the association between language and ethnicity on psychotherapy/pharmacotherapy depression treatment recommendation after controlling for age, gender, and race in the first...
block. The model was not a significant fit to the data $\chi^2(3,275) = 3.92; P = .27$. The inclusion of ethnicity in block 2 was also not a significant fit to the data $\chi^2(1,275) = 1.14; P = .29$. However, the inclusion of language in the third block was significant $\chi^2(1,275) = 4.45; P = .04$. The final model correctly classified 54.2% of cases (Table 2).

Evaluation of odds ratios and corresponding confidence intervals (95%) within the full model were used to examine the strength of the individual predictors. Criterion for significance was set at $P < .05$. Age and language were the only significant predictors of psychotherapy/pharmacotherapy depression treatment recommendations following a depression score of 10 or greater on the PHQ-9. Age was estimated to have an odds ratio [OR] = 0.98 and English language was estimated at OR = 0.39 ($P < .05$). These results indicate that older, and, Spanish-speaking (all were Latino in this sample) Latinos were less likely to receive a combined psychotherapy/pharmacotherapy depression treatment recommendation from their PCP after a positive depression screening (PHQ-9 $\geq 10$).

A sensitivity analysis was also conducted to assess the association of language and ethnicity on psychotherapy or pharmacotherapy depression treatment as standard of care recommendations after controlling for age, gender, and race in the first block. The model was not a significant fit to the data $\chi^2(3,275) = 3.87; P = .41$. The inclusion of ethnicity in block 2 was a significant fit to the data $\chi^2(1,275) = 4.23; P = .04$. However, the inclusion of language in the third block was not significant $\chi^2(1,275) = 1.28; P = .26$. The second model correctly classified 90.9% of cases (Table 3).

Evaluation of odds ratios and corresponding confidence intervals (95%) within the full model were used to examine the strength of the individual predictors. Criterion for significance was set at $P < .05$. Ethnicity was the only significant predictor of monotherapy (psychotherapy or pharmacotherapy) depression treatment recommendations following a depression score of 10 or greater on the PHQ-9. Ethnicity was estimated to have an OR = 0.40, $P = .04$. These results indicate that Latino patients were less likely to receive a psychotherapy or pharmacotherapy depression treatment recommendation from their PCP after a positive depression screening (PHQ-9 $\geq 10$) regardless of language spoken.

### Qualitative Interviews

Inductive and deductive qualitative analyses expanded on quantitative results by exploring themes related to how ethnicity and language may influence standard of care depression treatment recommendations and uptake. Table 4 summarizes qualitative findings by patient interview group into 3 primary themes 1): perception of depression treatment recommendations (including medications, psychotherapy, and a combined psychotherapy/pharmacotherapy recommendation), 2) receipt of depression treatment recommendations, and 3) barriers impacting uptake of treatment recommendations.

### Table 2. Logistic Regression of Demographic Characteristics Predicting Combined Depression Treatment Recommendations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 ($P = .27$) OR $P$ 95% CI</th>
<th>Model 2 ($P = .29$) OR $P$ 95% CI</th>
<th>Model 3 ($P = .04^*$) OR $P$ 95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.96 .13</td>
<td>1.76 .22</td>
<td>4.24 .02</td>
</tr>
<tr>
<td>Age</td>
<td>0.98 .07</td>
<td>0.98 .06</td>
<td>0.98 .03</td>
</tr>
<tr>
<td>Male gender</td>
<td>0.88 .63</td>
<td>0.88 .64</td>
<td>0.92 .76</td>
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<tr>
<td>White race</td>
<td>1.18 .51</td>
<td>1.20 .48</td>
<td>1.20 .47</td>
</tr>
<tr>
<td>Latino ethnicity</td>
<td>1.30 .29</td>
<td>0.80 .19</td>
<td>0.39 .04</td>
</tr>
<tr>
<td>Spanish language</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Classification = 56.7% Classification = 54.2% Classification = 54.2%

* $P < .05$.

OR, odds ratio; CI, confidence interval.
Theme 1: Perception of Depression Treatment Recommendations

The perception of depression treatment recommendations varied by modality. Ethnicity played a role in perceptions of both pharmacotherapy and psychotherapy. Most Latinos reported negative perceptions toward depression medication treatment recommendations whereas English-speaking non-Latinos expressed positive benefits to depression medications. While most Latinos supported psychotherapy for depression treatment, surprisingly, half of the English-speaking non-Latinos expressed concerns about psychotherapy based on past experiences—such as lack of rapport with a therapist, inability to have frequent enough visits, and not learning enough coping skills for depression.

Language seemed to be a factor with combined treatment recommendation perceptions. Most all Spanish-speaking Latinos expressed negative feelings toward combined psychotherapy/pharmacotherapy depression treatment recommendations whereas most English speakers felt there was a benefit to the combined treatment. All providers supported psychotherapy and the majority supported pharmacotherapy and combined treatment recommendations.

Theme 2: Receipt of Depression Treatment Recommendations

Language also seemed to affect the receipt of combined depression treatment recommendations. Most English speakers reported receiving combined psychotherapy/pharmacotherapy depression treatment recommendations compared with only 2 Spanish speakers. Most PCPs reported that they recommend combined therapy to all patients based on the clinic guideline, regardless of language or ethnicity considerations.

Theme 3: Barriers Impacting Treatment Recommendations

Patients and PCPs reported unique barriers impacting uptake of depression treatment recommendations. Structural barriers such as transportation or work hours were reported as common barriers impacting treatment uptake for psychotherapy recommendations. Patients and providers also reported issues with access to timely appointments, appointment availability, frequency of psychotherapy visits, and shortage of therapists. Spanish speakers reported no availability of a Spanish-speaking therapist in the clinic, as confirmed by the provider’s expressing the need for a bilingual and bicultural therapist.

Barriers impacting uptake of pharmacotherapy recommendations for English speakers include refill requests, issues with medication adjustments, and inability to reach the clinic for medication questions. Most Spanish speakers reported that they did not pick up their prescription from the pharmacy due to their negative perceptions of medications.

Discussion

This study provides information about patient language and receiving and accepting standard of care depression treatment recommendations (psychotherapy and pharmacotherapy). The data reveal

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
<th></th>
<th>Model 3</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$P = .39$</td>
<td>$P = .04^*$</td>
<td>$P = .26$</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>20.97</td>
<td>.001</td>
<td>41.02</td>
<td>.001</td>
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<td>.001</td>
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<tr>
<td>Age</td>
<td>0.98</td>
<td>.16</td>
<td>0.98</td>
<td>.12</td>
<td>0.98</td>
<td>.08</td>
</tr>
<tr>
<td>Male gender</td>
<td>1.57</td>
<td>.33</td>
<td>1.60</td>
<td>.31</td>
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<td>.31</td>
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<tr>
<td>White race</td>
<td>0.98</td>
<td>.96</td>
<td>1.00</td>
<td>.99</td>
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<td>.94</td>
</tr>
<tr>
<td>Latino ethnicity</td>
<td>0.40</td>
<td>.05*</td>
<td>0.40</td>
<td>.16</td>
<td>0.35</td>
<td>.03</td>
</tr>
<tr>
<td>Spanish language</td>
<td>2.29</td>
<td>.30</td>
<td>0.48</td>
<td>10.91</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Classification = 90.9%

*OR, odds ratio; CI, confidence interval.

Table 3. Logistic Regression of Demographic Characteristics Predicting Depression Treatment Recommendations—Sensitivity Analysis Including Monotherapy

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that language, which in this study is related to ethnicity, has an effect on depression treatment recommendations of PCPs. Being younger and an English speaker predicted whether the PCP recommended psychotherapy and pharmacotherapy to patients with depression. Older and Spanish-speaking patients were less likely to receive combined psychotherapy/pharmacotherapy treatment recommendations from their PCP. The sensitivity analysis found that ethnicity predicted whether the PCP recommended either psychotherapy or pharmacotherapy to depressed patients.

Qualitative interview analysis suggests that Spanish-speaking Latinos were less likely to receive combined psychotherapy/pharmacotherapy depression treatment recommendations. Latinos in this sample indicated they had negative perceptions about pharmacotherapy, and this is similar to other studies. US-born Latinos are less likely to follow mental health treatment plans and more likely to experience depression than other Latinos, and, than non-Latino whites. Further, other studies have found Latinos are fearful of mental health treatment leading to stigmatization and that the antidepressant medications are addictive; both perceptions lead to poor uptake of recommendations.

When combined therapy was recommended to Spanish-speaking Latinos, none followed through with the recommendation for medication and had difficulty accessing psychotherapy. Despite negative feelings about medications, English-speaking Latinos did follow through with psychotherapy/...
pharmacotherapy recommendations for both medication and psychotherapy. Barriers impacting treatment recommendations aligned with themes from the literature: negative perception about medications, low patient follow-through with recommendations, and a shortage of behavioral health specialists as well as a shortage of behavioral health specialists who speak Spanish in an underserved community.8,11,12

Study Limitations
There are several limitations to this study, suggesting potential research opportunities in the future. This study is limited in that only 2 languages and 2 broad ethnic groups were examined. First, the use of purposive sampling of patients may have introduced selection bias. For example, men were considerably underrepresented in the study; of the 12 Latino patients in the qualitative interviews, only 2 were men. However, a random sample was not feasible given the purposive design to achieve the research aims. The findings from this study may only be generalizable to other underserved communities or community health centers. The study was designed to recruit patients as they screened positive for depression during their medical visit. Consequently, the study’s design could have recruited patients who were being told they were depressed for the first time. Although the study attempted to add to the literature on depression in Latinos in a real-world setting, there were significant recruitment challenges for the qualitative phase of the study.

The ICSI guideline differs from many other guidelines in that combined treatment is recommended for all patients, even those with only mild-to-moderate depression. However, the FQHC offered integrated behavioral health specialist services during medical visits making psychotherapy a feasible option for patients with depression. As a result, the practice’s depression guideline indicates that the Integrated Behavioral Health Specialists would consult with the PCP at the visit and, if the patient had major depression, the patient would be referred for psychotherapy and receive a pharmacotherapy prescription. Thus, the current classification of patients who got combined therapy as standard of care and those referred for monotherapy, non-evidence based, or no treatment is consistent with the services and practices of the FQHC.

Cultural sensitivity issues presented unique challenges. The researchers were only successful with recruiting 1 Spanish-speaking Latino man. To mitigate the potential challenge of attrition, we offered the option of conducting interviews over the telephone. In addition, familialism (focusing on familial values and wellbeing, as opposed to a focus on individual opportunities) was a key factor during recruitment.21 Often, family influenced participation in the study because they accompanied Latino patients to their medical appointments. From a PCP perspective, Familismo as a cultural asset, can sometimes feel cumbersome in a clinical or research context. But as a cultural protective factor among monolingual Spanish speakers and first generation Latinx it enhances rapport and compliance.21 Hence, it is important that researchers and PCPs alike find strategies to attend to this value when working with this population22–24 and more actively engage the families of their patients in discussions of health and treatment decisions.

Future studies should examine other minority groups and Spanish-speaking non-Latinos for comparisons. Given the few men scoring positive even on the PHQ-2, other studies should consider including men to get an overall understanding of possible gender differences in depression symptoms. One concern about the analysis in the present study is that being Spanish speaking may be a proxy variable for acculturation rather than simply a language preference. The medical chart did not include information about immigration status or acculturation and so language was used to examine a potential health disparity regarding access to and perceptions of mental health care. Finally, the PCPs expressed concern about whether the screening instrument (eg, PHQ-9) was being administered appropriately and consistently by the medical assistants in the clinic. At times, the patient did not indicate depressive symptoms on the scale but then expressed these symptoms to the PCP. Future research should address how these items should be assessed in a medical visit in an underserved, multicultural patient population.

Conclusion
Studying the Latino population as discrete subgroup does not account for the impact of language preference on attitudes toward mental illness, treatment recommendations, and overall reduction of depressive symptoms over time. Results of the present study indicate that being older or a Spanish-speaking Latino is related to fewer standard of care depression
treatment recommendations by PCPs and potentially to a different uptake of PCP depression treatment recommendations by ethnicity. It is known that there is a shortage of mental health specialists across the nation and more so in underserved community health centers that serve Latino populations.

To see this article online, please go to: http://jabfm.org/content/32/6/904.full.

References


