# Use of a Health Fair to Promote Health Equity of the Hispanic Community in Metro Detroit

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***ABSTRACT***

This study analyzes the demographics, general health characteristics, and barriers to healthcareof the Metro Detroit Hispanic community through a health fair survey. Data was collected using a descriptive, 25-question self-reported survey in English and Spanish administered to 19 health fair attendees. Of total respondents, 92% identified as Hispanic and 76% Spanish-speaking.

Descriptive analysis was conducted on several variables, including prevalence of medical conditions, health behaviors, and barriers to care. Participants reported a high prevalence of serious chronic conditions including diabetes (29%) and hypertension (29%). Significant barriers included a lack of medical insurance (72%), no primary care physician (67%), and language (24%). Other notable barriers were medication and food insecurity (50% and 67%, respectively). Our findings illustrate the power of a health fair in reaching a local, underserved Hispanic population, and underscore the need for targeted efforts in improving Hispanic health equity andaccess in Metro Detroit.

***Keywords****: Hispanic health, Health equity, Health fair, Barriers to healthcare, Diabetes, Hypertension, Medication security, Food insecurity, Metro Detroit, Health behaviors*

## 1. Introduction

The Hispanic population is among the fastest growing in the USA, making up more than half of the total US population growth from 2010-2022 and rising to nearly 20% of the American population.[1] Unfortunately, however, Hispanic residents are disproportionately uninsured. Approximately 25% of residents lack insurance, nearly 3x the rate of non-Hispanic whites.[2] While government-driven efforts for universal health coverage have narrowed this gap, disparities in health outcomes remain, and Hispanic individuals may be negatively affected especially by high-risk conditions such as diabetes.[3]

In parallel with national trends, the state of Michigan has seen a recent growth in its Hispanic population, with demographic data showing a 29.4% Hispanic population increase from 2010-2020.[4] Much of this growth has occurred in the Detroit metropolitan area, with Detroit alone accounting for about 11% of Michigan's Hispanic population.[5] In the unique community of Southwest Detroit, colloquially known as "Mexicantown," approximately 34% of residents identify as Hispanic/Latin, and 84% of foreign-born individuals are from Latin America.[6] Similar to national trends, in Detroit Hispanic individuals are disproportionately uninsured (22%).[7] Previousresearch by the Wayne State University School of Medicine (WSUSOM) *Amigos Médicos Clinic. (AMC)*, a free, student-run clinic that emphasizes language-concordant care, suggests that local Hispanic patients face poorer quality of care as a result. Specifically, Hispanic individuals in Detroit may experience higher cost of care, difficulty affording food and medications, and worse medical literacy.[8] Past studies conclude that various interventions based at the community levelare needed to improve such

inequities.[3,8,9]

One such community intervention is a health fair.[10,11] A health fair is a public event that offers free health information, screenings, and resources to the greater community. Previous findings show the usefulness of health fairs in promoting healthy behaviors[12,13] and integrating vulnerable and/or immigrant populations into the local healthcare infrastructure.[14,15] The beauty of the health fair is its simplicity: an engaging way to attract a wide array of people, often marginalized populations with adverse health disparities, to participate in health promotion. The potential benefit is not only an increase in healthy behaviors, but also a possible increase in patient access to care which subsequently sustains these healthy behaviors. One recent, relevant example includes COVID-19 vaccine events as part of a fair to promote the health of rural US veterans. Screening findings ranged from a positive HIV test to the detection of invasive colorectal cancer as well as uncontrolled hypertension.[16] Such results can have lasting benefits,especially for vulnerable populations that might not otherwise seek or have access to care.

The potential impact of such fairs on the US Hispanic population is dramatic. Studies suggest that uninsured Hispanic individuals may be more likely than other demographic groups to attend, participate in, and return to health fairs,[17,18] and such fairs may further serve to facilitate increased collaboration between community and student organizations serving a common patient population such as the Hispanic community.[19] This reflects the findings of WSUSOM's *AMC* during our inaugural 2022 Summer Health Fair, where 100% of participating organizations reported a positive increase in community awareness.[19] Another recent example of such a fair includes nearby Flint, Michigan, where local community leaders and medical students in April 2022 gathered for *Evento Primaveral* to promote the health of the growing Michigan Hispanic population, and administered COVID-19 vaccines and health information in Spanish.[20]

In 2023 we, *AMC*, continued tradition by hosting our second annual Summer Health Fair. The fair occurred at the Ford Resource and Engagement Center (FREC) in Southwest Detroit, an ideal location for reaching Hispanic individuals, and where in 2022 67% of fair attendees reported lack of insurance. In addition to typical health information, screenings, and resources offered, we again sought to gain valuable insight into our patient population through the use of a cross-sectional survey assessing demographics, general health characteristics, and barriers to care of 2023 fair attendees. In doing so we aimed to better understand the needs of the local Hispanic community and identify areas of improvement for our clinic.

Based on our findings, we identified three aims which guided the efforts of our clinic for the rest of the year. We believe that implementing these goals through our free, language-concordant clinic has improved health outcomes for Hispanic residents of Southwest Detroit. We hope to continue to incorporate such evidence-based measures, including additional surveys and health fairs, to adapt our clinic to the needs of the local Hispanic community and improve health equity for our marginalized patient population.

## 2. Methods

To host the health fair we partnered with various WSUSOM organizations. Services provided included eye exams, diabetes education, hearing screenings, nutritional information, medical care through the WSUSOM Mobile Health Unit, as well as patient education regarding the importance of medication compliance through the WSU School of Pharmacy. Additionally, community partners including Gleaners Food Bank, as well as the National Kidney Foundation of Michigan, were in attendance.

Attendees of the health fair were presented with a participant information sheet and, upon consent, were administered a voluntary 25-question survey in English or Spanish. Initial survey questions addressed demographics: if respondents lived in Southwest Detroit, their gender, age, if they identified as Hispanic or Latino/a, and their preferred language. Questions regarding characteristics of healthcare and medical history followed: if respondents had health insurance, if they had a primary care physician, if they had any comorbidities, sources of medical care when ill, and the length of time since their last appointment with a physician. Questions then focused on barriers to care including food insecurity, difficulty affording medication, difficulties accessing healthcare, preference for a language-concordant healthcare provider, how respondents heard about the health fair, their motivations for attending the health fair, if they would attend another health fair in the future, what they would like to see in a future health fair, and their overall satisfaction with our health fair. The last few questions asked if respondents had heard of *AMC*, whether or not they had been to

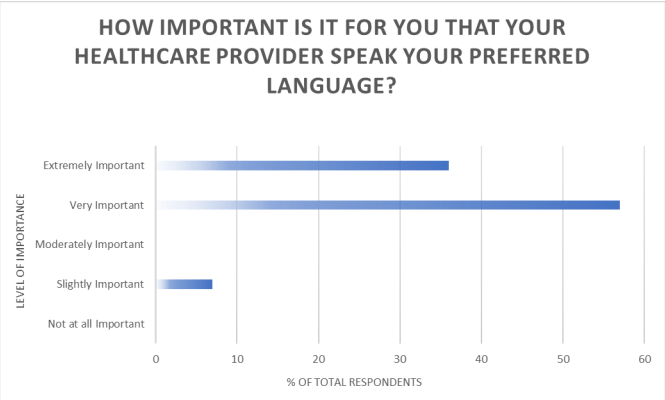
*AMC*, if respondents were interested in learning more about the services that *AMC* offers, and lastly any comments/suggestions for us.

## 3. Results

The results of our survey yielded some unique findings regarding the demographics, generalhealth characteristics, and barriers to care of 2023 health fair attendees. Demographics were first assessed: 100% of attendees (19 respondents) claimed residence in Southwest Detroit, 84% (16) identified as Hispanic/Latin, and 79% (15) selected Spanish as their preferred language, indicating that our survey reached our target demographic.

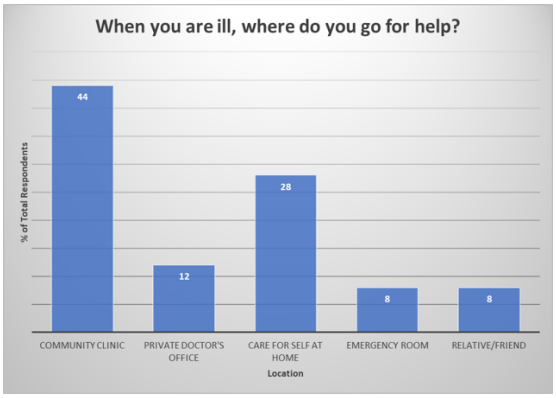
General healthcare characteristics and preferences were subsequently assessed. In agreement with current literature[22], health fair attendees preferred a physician who was language-concordant, with 36% (5) saying it was "extremely important", 57% (8) "very important", and only 7% (1) "slightly important" (Figure 1).

**Figure 1: Language Concordance Preference Amongst Health Fair Attendees**



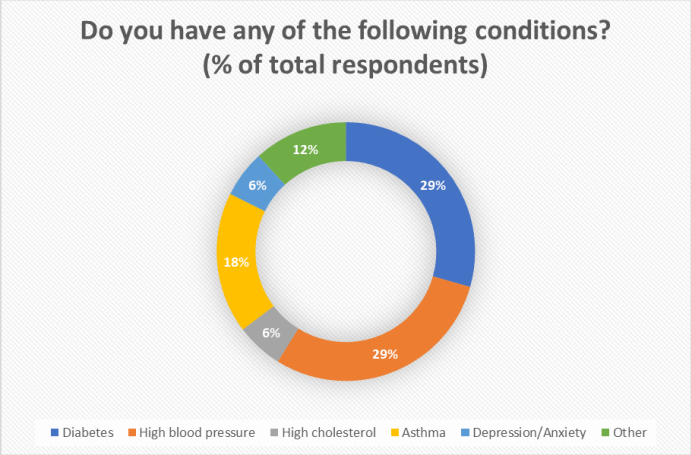

Secondly, in response to the question "When you are ill, where do you go for help?" 44% (11) of health fair attendees overwhelmingly reported "community clinic" as a source of care. 28% (7) reported "care for self at home", 8% (2) reported "emergency room", and another 8% (2) reported "relative/friend".

**Figure 2**: **Sources of Care When Ill Amongst Health Fair Attendees**




With regards to most prevalent medical conditions amongst health fair attendees, 29% (5) reported "high blood pressure", 29% (5) reported "diabetes", 18% (3) reported "asthma", 12% (2) reported "other", 6% (1) reported "depression/anxiety", and 6% (1) reported "high cholesterol".

**Figure 3: Most Prevalent Health Conditions Amongst Health Fair Attendees**




Finally, barriers to healthcare were studied. In response to the question "Do you have health insurance?" 72% (13) reported lack of health insurance coverage. Responding to the question "Do you have a primary care physician?" 67% (12) stated they did not have a primary care doctor. Additionally, 24% (5) reported "language barriers" as a difficulty experienced when obtaining healthcare. With regards to knowledge of the presence of our clinic (*AMC*) in the community, only 40% (6) stated "yes", and concern regarding lack of language concordance was cited by 33% (1) as a reason for not using our clinic.

In response to the question "Have you ever not been able to afford your medication?" 50% (7)reported "yes". When asked "In the past 12 months, have you ever had trouble buying food for yourself or your family?" 67% (10) reported a history of food insecurity.

Lastly, when responding to how they heard about the health fair, "friends/family" and "flyers" were the most common answers with 47% (8, 8) of respondents reporting each of these modalities.

Overall, 19 participants started the survey, and 15 completed it (79% completion rate).

## 4. Discussion

Our study shows that a cross-sectional survey at a health fair is a unique and effective way of studying the demographics, general health characteristics, and barriers to care of a local underserved Hispanic population. Our findings demonstrate that we successfully reached ourtarget sample in terms of demographics (84% of survey respondents identified as Hispanic/Latin, and 79% selected Spanish as their preferred language) and access (72% reported a lack of medical insurance, and 67% lacked a primary care physician).

Concerning general health characteristics of the surveyed group, pertinent findings include 29% each reporting a history of diabetes and high blood pressure, respectively. This is reflective of previous findings, which show a disproportionately high prevalence of diabetes and high blood pressure in the Hispanic population.[8,21] Interestingly, mental health conditions were minimally reported in our survey (6% with depression/anxiety), though studies show that trauma exposure and related psychiatric conditions may actually be disproportionately prevalent and/or underreported in Hispanic individuals as compared to other demographic groups.[23,24] We posit that our findings of low prevalence in the surveyed group may reflect an apprehension to reportsuch history due to stigma, and thus more research is needed to study this topic to identify effective ways of addressing mental health burden in Hispanic patients.

Relevant findings regarding potential barriers to care include the following: while 48% reported going to a community clinic when sick, 30% also reported using self-care at home. Moreover, 50% reported prior inability to afford medication, and 67% expressed difficulty buying food during the preceding 12 months. Lastly, 24% reported

experiencing language barriers when seeking care. These are pertinent findings as they all relate to social determinants of health (SDOH) our patients experience. Fortunately, while many patients (44%) may have access to local clinics (with only 9% reporting use of the emergency room), the high proportion of respondents using self-care at home (28%) may reflect a gap in insurance coverage or general reluctance to navigate the local healthcare infrastructure. High levels of medication (50%) and food insecurity (67%) point to compounding social and cost-based barriers. These are important to consider in the context of a community clinic serving a marginalized population. As many high-risk, chronic conditions prevalent in the Hispanic community necessitate both medical and diet-based interventions, such barriers could be detrimental for local patients trying to maintain adequate control of blood sugar, blood pressure, and cholesterol levels among other biomarkers. More research may be necessary to determine how medication pricing disproportionately affects Hispanic patients, in addition to potential solutions, e.g., informing providers regarding effective, cost-friendly alternatives and utilizing discount medication programs such as GoodRx. Additionally, studying what role, if any, community clinics might play in ameliorating food insecurity is needed to improve SDOH that impact Hispanic health.

Interestingly, 47% of health fair attendees heard about the health fair either through "family/friends" or "flyers." This shows that while flyering is an effective strategy to promote health fairs, word of mouth is also heavily important in the Hispanic community. This has benefits and drawbacks, considering that an inflection point needs to be reached in order for a new clinic serving this population to gain traction and sustainability in the local community.

Finally, with 24% of respondents reporting language barriers as an impediment to their health access, continued emphasis on language-concordant care, as practiced by *AMC*, is essential both locally and nationally for improved Hispanic health outcomes.

In summary, after analyzing these relevant findings gathered from our survey, we identified the following three goals to improve our student-run clinic initiative:

1. *Additional collaboration with local community clinics to ensure continuity of care,*
2. *Connection with local food banks and pantries to combat food insecurity,*
3. *Implementation of a medication subsidization program to alleviate the financial burden of healthcare costs for underinsured residents.*

We have already taken steps to implement goals 1-3 and believe that our efforts have positivelyimpacted the health outcomes of the local Hispanic population. Furthermore, we plan to continuously evaluate such quality improvement projects and reassess pertinent community needs to identify additional areas for growth in our clinic. Overall, we feel that our health fair survey provided an accurate description of the key health characteristics and barriers of the local Hispanic population, and formed a framework by which we plan to continuously investigate and improve the health equity of the Hispanic community of Metro Detroit.

*A) Limitations*

Our study has several limitations. First, our survey was conducted as a cross-sectional description of a select group of patients attending a health fair at FREC in Southwest Detroit. Itis impossible to describe all of the Hispanic individuals of Metro Detroit using our study; we instead aim to provide an idea of the general needs of this unique population. Given that Southwest Detroit has the highest percentage of Hispanic residents in Metro Detroit, we feel that our study is largely representative of Hispanic residents of Metro Detroit. It is also possible that the individuals surveyed are more likely to engage in health behaviors (i.e, attending a health fair), and thus their needs may differ from those of other Hispanic residents.

Other potential limitations of our study include user fatigue, lack of response, and survey length. While 19 participants began the survey, not all completed it, and some did not answer certain optional questions. Though only 25 questions in length with average time to completion of 5-10 minutes, the survey may have been too long, and it is possible that even amongst those who completed it, the length may have affected their responses (hurried responses, partial comprehension, limited attention, etc.). While it is difficult to assess the validity of these possibilities, future surveys may utilize less overall (but required) questions, less sections, and/or shorter prompts in order to decrease survey

length and facilitate completion.

Finally, it is also possible that due to the sensitive nature of certain topics, certain findings weremisrepresented in the surveyed population. For instance, though we suspect that trauma exposure and related mental health conditions may be highly prevalent in the local Hispanic community, it is likely that due to the sensitivity of this topic, survey respondents underreportedtheir experience with these conditions. Though we reassured participants that all survey responses were confidential (as described in a participant information sheet with user consent), it is still possible that those surveyed did not feel comfortable disclosing certain information. More research is needed to determine how to best study and treat mental health concerns in the Hispanic community.

*B) Future Directions*

Given our findings regarding the prevalence of diabetes and hypertension among health fair attendees (29% each, respectively), further investigation is needed to ameliorate the risk of these diseases in the Hispanic community. Follow-up studies might seek to measure patient knowledge and attitudes regarding these unique conditions to identify areas for improved patienteducation and health outcomes. Additionally, future research regarding the detection and treatment of mental health conditions in the Hispanic community is also warranted. Improvement of survey presentation to better identify and broach these sensitive topics should help fill this knowledge gap.

While 48% of respondents reported going to a community clinic when sick, 30% also reported using self-care at home. Moreover, 50% reported prior inability to afford medication, and 67% expressed difficulty buying food during the preceding 12 months. Based on these findings, more investigation is needed to determine what local community clinics Hispanic patients use, when they use them, and their motivations for doing so. Additional exploration as to reasons for self-care is also warranted, as this finding may relate to personal preference/cultural factors (i.e., for holistic care) over utilizing the typical medicalized framework of local organized healthcare, or may be a necessity due to lack of insurance (considering that 72% of respondents reported lack of health insurance coverage). Follow-up studies regarding food insecurity, medication insecurity, and the benefits of connection with local clinics and community organizations (including food banks) should also be performed to identify the impact both in our local Hispanic community and beyond at a national level.

47% of health fair attendees heard about the health fair either through “family/friends” or “flyers” suggesting the importance of social reach within the Hispanic community. Future research and initiatives should focus on leveraging the social framework of the Hispanic community to promote health behaviors and improve health outcomes. *AMC* has taken steps to this end by establishing relationships with local community organizations including the Community Health and Social Services Center (CHASS) and Detroit Hispanic Development Corporation (DHDC).

Finally, since 24% of respondents reported language barriers as an impediment to their health access, future studies should investigate how to best incorporate Spanish-language services in the medical setting, including the medical school curriculum, to positively impact Hispanic health equity.

## 5. Conclusion

We report our findings of a health fair survey studying the Hispanic community in Metro Detroit with tangible goals identified for improved health equity and outcomes. Our study shows the usefulness of a health fair in identifying the health barriers experienced by a local Hispanic community and provides insight for improving relevant clinic initiatives and health outcomes. Asthe Hispanic population continues to grow in the United States, more efforts are needed to improve outreach, provide patient education, and promote healthy behaviors within this growing community. Health fairs represent an excellent way to accomplish this goal given the access, convenience, and social milieu they provide. Qualitative research can provide useful insights into the demographics, needs, and barriers of patients attending these events. Future research should reassess the needs of the Hispanic community of Metro Detroit, the success of our initiatives in improving their health outcomes, and the applicability of our findings to other Hispanic populations nationally.

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**Disclaimer:** The views expressed in this paper are those of the authors and not necessarily of the authors' organizations or the National Hispanic Medical Association (NHMA). The paper is intended to help inform and stimulate discussion. It is not a report of NHMA. 

**Ethics Approval**

This study was approved by the Institutional Review Board (IRB) of Wayne State University School of Medicine (protocol 23-05-5801).

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