



National Hispanic Medical Association

24th Annual Conference

**Hispanic Health
Research | Service Learning
Poster Session**

**March 17-20, 2021
Wednesday - Saturday**

#NHMA2021

#Vaccinate4All

TABLE OF CONTENTS

JUDGES

Pilar Guerrero, MD
Ricardo Correa, MD
Maria Garcia MD, MPH, FACP
Jane Binger, EdD
Minerva Campos, MD, MPH

STUDENT

Adapting Screening, Brief Intervention and Referral to Treatment (SBIRT) for Moderate Risk Drug Use with FQHC primary care clinics in Los Angeles during the COVID-19 pandemic	3-4
An Evaluation of the Clínica Comunitaria Esperanza Patient Population within the Eastern Virginia Medical School Free, Student-Run Dermatology Clinic	5
Caffeine Metabolite Index Significantly Elevated in Mexican Americans and Other Hispanics Compared to Non-Hispanic Whites in NHANES 2009-2010	6-7
Doctor for a Day Conference: A Sustainable and Scalable Model for Inspiring Diversity in Medicine	8
Effectiveness of Mental Health Literacy and Stigma Interventions for Latino/a Adults in the United States: A Systematic Review	9
Evaluation of a DPP Implementation in a Student-Run Free Clinic Setting	10
Factors influencing high rates of Cesarean section in the Dominican Republic	11
Hispanic Resident Diversity Trends in Surgical Specialties: A Study At A Single Academic Medical Institution and Comparison with National Trends	12
Incorporating of a Medical Interpreter-Led Limited English Proficiency Training Session into the Undergraduate Medical Education Curriculum	13
Reducing costs incurred to the healthcare system by offering free, high quality bilingual healthcare to uninsured residents of Hampton Roads, VA through La Clínica Comunitaria Esperanza	14
Hispanic Resident Diversity Trends in Surgical Specialties: A Study At A Single Academic Medical Institution and Comparison with National Trends	15-16
Shared Medical Visits to Improve Diabetes Management Among Hispanics in South Florida	17
Uncommon consequences of SARS-CoV-2 on the nervous system: A Case Report	18
Use of Published AAMC Data as a Readily Accessible Indicator of Progress in Medical School Recruitment of Underrepresented Minorities	19

TABLE OF CONTENTS

PROFESSIONAL

A cross-sectional analysis of ethnic and language difference in Food Insecurity among Emergency Department patients	20	Examining relationships among physical activity, social health, and socioeconomic status among pregnant women	37
A Household-centered Care Approach for Pediatric Patients with Asthma, Pre-diabetes, Diabetes, and/or Obesity	21	Health and Health Services among Hispanic Construction Workers, 2014-2018	38-39
A National Needs Assessment of Males with SLE: Assessing Medical, Psychosocial, Support & Coping Needs	22	Influenza Vaccine Uptake among Underserved Latinx Middle-Aged and Older Adults in South Los Angeles	40
Addressing Emergency Room Overutilization with an Innovative Household Centered Care Approach	23	Lessons, recommendations and strategies from rural communities and health departments regarding the distribution of Naloxone to combat the opioid epidemic	41
An Evaluation of the Clínica Comunitaria Esperanza Patient Population within the Eastern Virginia Medical School Free, Student-Run Dermatology Clinic	24	Modulating Early Life Microbiome through Dietary Intervention in Crohn's Disease	42
Adult-onset Still's Disease in Young, Hispanic woman - What to do to advocate for your patient's health	25	Provision of Non-English Language Services in U.S. Mental Health Facilities	43
An Obesity Prevention Intervention for Latino Families	26	Psychoeducational Intervention for Spanish-speaking Patients	44
Arroz Moro vs. Brown Rice: Evaluating the Integration of Cultural Competency, Culinary, and Nutritional Medical Interventions	27	Safe and Effective Transitions of Care via a multifaceted coordination, planning and handoff	45
Assessing Opportunities and Challenges of E-Consult at a FQHC	28	Socio-economic Inequities in Parental Awareness and Access to Meningococcal Serogroup B Vaccines	46
Assessing participants' satisfaction with Illinois Unidos's efforts to combat covid-19	29	Sports Medicine at AltaMed (FQHC): Decreasing the number of referrals to orthopedics by utilizing in-house primary care sports medicine	47
Characteristics of an early cohort of COVID positive patients at an Urban Emergency Department	30	Successful Recruitment Strategies during COVID-19 Among Underserved Hispanics/Latinxers with Type 2 Diabetes	48
Charles R. Drew University and AltaMed Health Services: A Unique University and FQHC Collaboration to Implement a Health Careers Opportunity Program (HCOP) to Train Minority Students for Future Careers as Healthcare Providers	31	The Success of Appreciative Inquiry to Engage all Team Members in Improving High Blood Pressure for At-Risk Hispanic/Latino adults in the Primary Care Setting	49
Direct Primary Care for the Uninsured	32-33	Socio-economic Inequities in Parental Awareness and Access to Meningococcal Serogroup B Vaccines	50-51
Doctor-patient relationships and discrimination in everyday life of Latina patients	34	Utilization of Interpreter Services on a General Medicine Ward Service: A Multi-Modal, Iterative, Quality Improvement Projects	52
Engaging People Experiencing Homelessness in Primary Care	35	Validation of a Spanish Version of the Prolapse and Incontinence Knowledge Questionnaire	53
Evaluation of a Bilingual Cultural Hispanic/Latinx Workshop About Diabetes for Pre-health and Health Professions Students	36	Virtual Clinical Training During COVID-19: Evaluating An Online Patient Simulation Curriculum For 2nd Year Medical Students	54

Adapting Screening, Brief Intervention and Referral to Treatment (SBIRT) for Moderate Risk Drug Use with FQHC primary care clinics in Los Angeles during the COVID-19 pandemic

UCLA

Natalie Martinez, Quynh Vo, Efren Aguilar, BS, Stephanie Sumstine, MPH, Whitney Akabike, MSPH, Dallas Swendeman, PhD, MPH, Lillian Gelberg, MD, MSPH
University of California, Los Angeles



Purpose

COVID-19 has severely impacted in-person screening and enrollment for interventions and clinical research trials due to reduced in-person clinic capacities and the rapid increase of telehealth services. By leveraging mobile-web platforms and discussing barriers and facilitators of telecommunication technologies with federally qualified health center (FQHC) clinic leaders, we have developed a remote method of conducting pre-visit substance use screening for low-income, Spanish and English speaking, primary care patients with upcoming primary care appointments that will be tested for future implementation.

Methodology

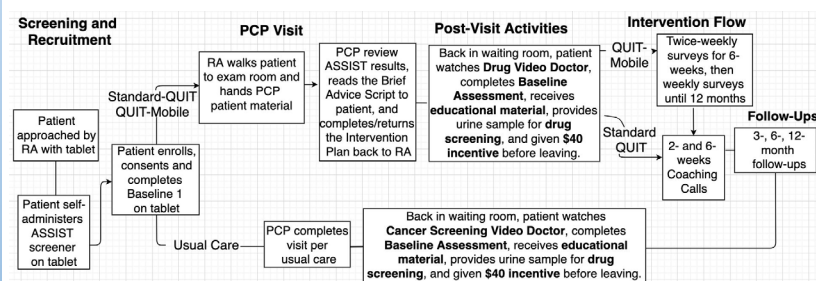
The **Quit Using Drugs Intervention Trial (QUIT)** and the **QUIT BINAT study** (conduct in Tijuana and East Los Angeles), had depended on in-person patient engagement in clinic waiting rooms to conduct screening, enrollment, urine drug screening (UDS).

To adapt to telehealth visits and shorter in-person waiting room times and densities, a mobile-website application was developed to:

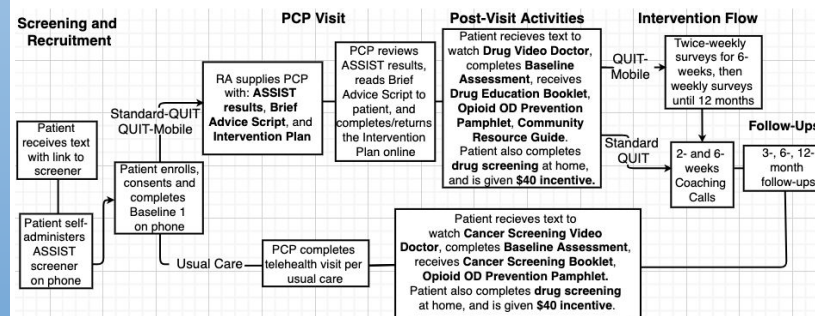
- 1) deliver patient self-administered screening questions
- 2) conduct study enrollment, consent, randomization, and research assessments,
- 3) share screener results and brief advice script with the Primary Care Provider (PCP)
- 4) provide patients with a health education booklet, opioid overdose prevention pamphlet, and community resource guide
- 5) conduct weekly patient self-monitoring surveys
- 6) deliver automated feedback and support messages to patients.

In addition, the QUIT-Mobile team engaged in weekly meetings with our FQHC partners to discuss barriers, facilitators, and processes for adopting and implementing the program with emphasis on telehealth processes.

In-Person Protocol for Standard QUIT



Telehealth Protocol for QUIT-Mobile



Results

FQHC clinic partners have implemented methods to reduce patient waiting room times and density; therefore, the QUIT-Mobile study needed to establish pre-visit remote screening and enrollment procedures regardless of COVID-19 barriers.

Barriers to implementation include:

1) processes for sharing patient appointment and contact information, addressed by research assistants (RAs) becoming clinic volunteer staff.

2) concerns about mobile technology access and literacy for some low-income patients requiring RAs to monitor screening completion, follow-up for adherence, and to provide technical support.

3) methods of communicating screening results to PCPs met by adopting a multi-channel approach (email, text, phone, chart notes, care team private message portal) per care team preferences.

Additionally, unique links were developed for each participant that avoids the engagement barrier of creating a login account, while still protecting private patient information. A fully integrated, multi-media, mobile-web application for screening, enrollment, consent, intervention, follow-up, and case management has been developed in Spanish and English.

Urinalysis Sheet in English

Instructions for Urinalysis Test

We are so glad to have you be a part of the Living Well Program with UCLA and TCC Family Health! As part of the program, we have all of our participants complete a urinalysis test to help with our research findings. This will help us learn more about your health and how to improve the program. Results from this test are for research purposes only and will not be shared with your provider. **Once completed you will receive a \$20 Amazon Gift Code.** Please follow the instructions below to get started!

- 1 Remove the urinalysis test cup from the packaging.
- 2 When you are ready, remove the lid and urinate into the cup. Enough should be collected until it reaches the Minimum Urine Level mark, indicated in the graphic shown.
- 3 After the urine has been collected in the test cup, close it with the lid and set a timer for 5 minutes. Once the 5 minutes have passed, remove the sticker from the outside of the test cup. Take 4 pictures of all sides of the test cup to clearly show all the test strips.
- 4 Text or email the pictures to the Living Well Program.
 - Text: (310) 869-9829
 - Email: LivingWellProgram@mednet.ucla.edu
 Your \$20 Amazon gift code will be either emailed or texted to you once you complete the test.

If you have any questions or need assistance, please feel free to call or text one of our Research Assistants at (310) 869-9829.

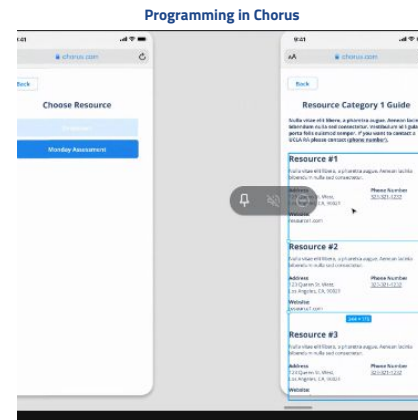
Urinalysis Sheet in Spanish

Instrucciones para la Prueba de Análisis de Orina

¡Estamos muy contentos de que sea parte del Programa para una Vida Saludable con UCLA y TCC Family Health! Como parte del programa, hacemos que todos nuestros participantes completen una prueba de análisis de orina para ayudar con nuestros resultados de la investigación. Esto nos ayudará a conocer más sobre su salud y cómo mejorar el programa. Los resultados de esta prueba son solo para fines de investigación y no se compartirán con su proveedor. **Una vez completado, recibirá un código de regalo de Amazon de \$20.** ¡Siga las instrucciones a continuación para comenzar!

- 1 Retire la taza de prueba para análisis de orina del envase.
- 2 Cuando esté listo, retire la tapa y orine en la taza. Se debe coleccionar lo suficiente hasta que alcance la Marca de Nivel Mínimo de Orina, que se indica en el gráfico que se muestra.
- 3 Una vez que se haya coleccionado la orina en el vaso de prueba, ciérralo con la tapa y espere 5 minutos. Una vez que hayan pasado los 5 minutos, retire la pegatina del exterior del vaso de prueba. Tome 4 fotografías de todos los lados del vaso de prueba para mostrar claramente todas las tiras reactivas.
- 4 Envíe las imágenes por mensaje de texto o correo electrónico al Programa para Una Vida Saludable.
 - Texto: (310) 869-9829
 - Correo Electrónico: LivingWellProgram@mednet.ucla.edu
 Su código de regalo de Amazon de \$20 se le enviará por correo electrónico o por mensaje de texto una vez que complete la prueba.

Si tiene alguna pregunta o necesita ayuda, no dude en llamar o enviar un mensaje de texto a uno de nuestros asistentes de investigación al (310) 869-9829.



Conclusion

- The COVID-19 pandemic has catalyzed an unpredictable disruption in healthcare resulting in the rapid expansion of telehealth.
- The degree to which telehealth will be sustained in the post-pandemic era is uncertain, but it will likely be much greater than pre-pandemic.
- There has been an estimated 8,729% (>80-fold) increase in the utilization of video for clinic visits during the COVID-19 pandemic and high levels of patient satisfaction with the video visits (Ramaswamy et al., 2020).
- The future of healthcare access will be increasingly fueled by technological innovations, including telehealth, remote screening and monitoring.
- This will require an improvement in patients' health technology literacy which will be vital to assure equitable access for all patients.

Acknowledgements

This research was supported by the National Institute on Drug Abuse (NIDA; 5R01DA047386) and the Beneventures Foundation.

AN EVALUATION OF THE *CLÍNICA COMUNITARIA ESPERANZA* PATIENT POPULATION WITHIN THE EASTERN VIRGINIA MEDICAL SCHOOL FREE, STUDENT-RUN DERMATOLOGY CLINIC

- Taylor Dyson, MS3, M.S., Stafford Brown, MS3, M.S., Alexandra Leader, MD, MPH, Edward Prodanovic, MD
- Departments of Global Health and Dermatology
- Eastern Virginia Medical School (EVMS), Norfolk, VA

Introduction and Purpose

In 2015, the Health Outreach Partnership of Eastern Virginia Medical School Students (HOPES) Clinic established its Dermatology Clinic to meet the dermatological needs of the uninsured population of Hampton Roads, Virginia. In 2016, EVMS medical students established *Clinica Comunitaria Esperanza* within the HOPES Clinic system to provide healthcare for uninsured, Spanish-speaking residents of Hampton Roads, Virginia. This project was conducted to evaluate clinical diagnoses of Spanish-speaking patients at the HOPES Dermatology Clinic and to identify areas of improvement for the care of Spanish-speaking patients in the HOPES Dermatology Clinic.

Methodology

A chart review of 140 HOPES Dermatology Clinic patients that were seen in clinic from January 15, 2015 to November 21, 2019 was conducted using the PracticeFusion electronic medical record. The Spanish-speaking patients were given the designation of "ESP" within PracticeFusion. The following variables were recorded in a password-protected Excel spreadsheet:

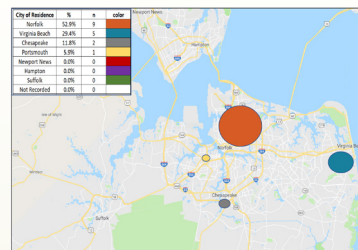
- Age, sex, race, city of residence
- Vitals
- Reason for first visit, date of most recent visit
- Diagnoses, medications, services
- No. of clinic visits, cancellations, no-shows

Patients

- 17 of 140 patients were Spanish-speaking.

Demographics

- 13 to 57 years of age.
- 12 of 17 patients were female.
- Race was not recorded for any of the 17 patients.
- 52.9% of the patient population listed Norfolk, Virginia as city of residence.
- 100% of patients had city of residence recorded.



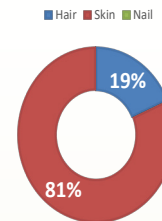
Vitals

- 3 of 17 patients never had their vitals measured over the course of multiple visits.
- 6 of 17 patients did not have their vitals measured during their first visit to the HOPES Dermatology Clinic.

Results

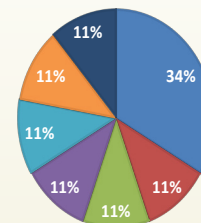
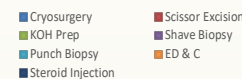
Diagnoses

- 25 distinct diagnoses were made.
 - Most common diagnosis was keratosis pilaris.



Services

- Most common service provided was cryosurgery.



Conclusions

From January 15, 2015 to November 21, 2019, the HOPES Dermatology Clinic provided care to 140 uninsured patients in Hampton Roads, Virginia, including 17 predominantly Spanish-speaking patients. The clinic is effective in diagnosing and treating its Spanish-speaking patients, which is reiterated by the diverse diagnoses, medications, and services provided to the patients of this population. Areas of improvement for this clinic lies within its operations. The need to record each patient's demographics, especially race, was greatly emphasized in this study. We know that race correlates with health care outcomes and being able to identify the more vulnerable members of our patient community will allow us to work to overcome these structural barriers and social determinants of health. Additionally, the need to measure and record each patient's vital signs was greatly emphasized in this study. Such measurements are not as pertinent in most dermatology clinics, but in a clinic such as this, it is important to provide each patient with an all-encompassing exam. In conclusion, this study provided greater detail into the Spanish-speaking patient population this clinic serves.

Acknowledgements

We would like to thank the EVMS Department of Global Health, EVMS Department of Dermatology, and the EVMS HOPES Clinic for providing the opportunity for us to conduct this quality improvement project. We would also like to thank the EVMS faculty and student clinic volunteers who dedicate their time to improving the health of the uninsured population of Hampton Roads, Virginia. We would also like to give special thanks to our community members who have trusted us with their health.

Caffeine Metabolite Index significantly elevated in Mexican American, Other Hispanic and Black individuals versus Non-Hispanic whites using NHANES 2009-2010. Alexis Garduno, MPH^{1,2} and Tianying Wu, MD, PhD^{2,3}

¹ Joint Doctoral Program (JDP) in Public Health Epidemiology San Diego State University / University of California San Diego; agarduno@ucsd.edu; ² Division of Epidemiology and Biostatistics, School of Public Health, San Diego State University; ³ Moores Cancer Center, School of Medicine, University of California

Purpose: To examine whether caffeine metabolism, using a proxy for hepatic CYP1A2 activity, among Mexican American, Other Hispanic, and Black participants differs from Non-Hispanic white individuals.

Methodology: NHANES 2009-2010 data is the first nationally representative sample that measured urine caffeine metabolite concentrations. A total of 14 caffeine metabolites were measured in the NHANES study. We selected the following five metabolites for our analyses: theophylline, paraxanthine, theobromine, 1-methyluric acid, and 5-acetylamino-6-amino-3-methyluracil, since theophylline, paraxanthine, and theobromine are the main three upstream metabolites, and 1-methyluric acid and URXAMU are the main downstream metabolites that have been shown strongly associated with caffeine clearance. A caffeine metabolism index was developed to represent the ratio of creatinine-adjusted paraxanthine (urine) relative to milligrams of caffeine consumed, which was ascertained through 24-hour recall. Linear regression was performed to examine the association between the log-transformed caffeine metabolism index with racial ethnic status, after adjustment for body mass index, physical activity, liver condition, renal function, liver enzymes (aspartate and alanine aminotransferase, 1-methyluric acid, 5-acetylamino-6-amino-3-methyluracil, and bilirubin), and lifestyle factors. Domain analysis was performed to examine age in the sample stratified by race/ethnicity. Modeling was performed in SAS 9.4 using the PROC SURVEYREG procedure. The 2-year subsample weight (WTSC2YR) reflects the smallest denominator of all the covariates sampled. This survey procedure allowed us to represent the sampled population in the US and the response rate.

Results: We selected those who have measurements of caffeine metabolites in urine samples. Out of 10,537 participants, a total of 1470 people were included, where 51.77% were Non-Hispanic white, 14.56% Non-Hispanic Black, 10.40% Mexican American, 10.41% Other Hispanic, and 4.63% Other Race/Multi-Racial. Mexican American and Other Hispanic participants were on average slightly younger (<48 years), were more likely to be never smokers (<100 lifetime cigarettes), had lower levels of serum cotinine (smoking biomarker), had higher body mass index (more likely to be overweight), were less likely to fast before their visit, healthier eGFR, and were less likely to engage in physical activity than other racial ethnic groups ($p < 0.05$, Table 1). Other Hispanic and Black participants were more likely to have diabetes than other groups ($p < 0.05$, Table 1). Black participants were more likely to be older, were more likely to be current smokers, had higher serum cotinine levels, had higher body mass index, were more likely to be hypertensive, spent less time fasting prior to

their visit, had worse eGFR, and more frequently engaged in no physical activity ($p < 0.05$, Table 1). Racial-ethnic status was significantly associated with half of the metabolism indices after adjustment for all other variables ($p_{\text{omnibus}} < 0.01$ for all except theobromine and 5-acetylamino-6-amino-3-methyluracil index, Table 2). Mexican Americans had $\sim 0.55 \text{ umol/mg}^2$ higher theophylline and paraxanthine indices ($p < 0.0001$, Table 2) and Other Hispanics had $\sim 0.60 \text{ umol/mg}^2$ higher indices ($p < 0.0001$, Table 2) on average as compared to non-Hispanic whites after multi-variable adjustment. Black participants had lower caffeine metabolite indices than non-Hispanic whites consistently across all three upstream indices, yet these associations were not significant at the 0.05 level. Alternatively, Black participants had 0.20 and 0.72 umol/mg^2 higher 1-methyluric acid and 5-acetylamino-6-amino-3-methyluracil indices ($p < 0.05$, Table 2), which are downstream indices, compared to non-Hispanic whites. **Conclusion:** We showed racial-ethnic disparities in caffeine metabolism in a large cross-sectional study. While caffeine is generally understood to be a safe compound, observed racial ethnic differences in caffeine metabolism may explain differences in interindividual bioavailability. There is sufficient evidence to make that recommendation that NHANES should continue collection of this metric, which had been discontinued after 2010. To advance health, the next step is to use existing longitudinal data to study caffeine metabolism index and its association with other chronic conditions, such as cardiovascular disease.

UC San Diego

Herbert Wertheim
School of Public Health and
Human Longevity Science



Table 1. Demographic characteristics in selected 2009–2010 NHANES participants (n = 1470)

Characteristic	Mexican American (N = 274)	Other Hispanic (N = 153)	Non-Hispanic Black (N = 214)	Other / Multi-Racial (N = 68)	White (N = 761)	p-value
Gender (%)						0.31
Female	48.45	56.42	55.27	59.39	49.78	
Male	51.55	43.58	44.73	40.61	50.22	
Age (%)						≤ 0.0001
18 to <28	20.61	18.17	15.45	16.99	11.50	
28 to <38	28.15	23.98	16.79	19.25	15.60	
38 to <48	20.82	23.70	19.03	27.08	20.42	
48 to <58	14.44	18.97	25.08	14.41	19.67	
58 to <68	8.76	7.85	15.45	17.86	17.95	
68+	7.22	7.33	8.20	4.41	14.85	
Smoker Status (%)						0.01
Never Smoker (<100 cigs)	65.90	64.63	57.41	58.32	54.50	
Former Smoker (>100 cigs)	15.48	21.25	13.46	23.16	26.07	
Current Smoker	18.63	14.12	29.13	18.52	19.43	
Serum cotinine, ng/mL _e (%)						≤ 0.0001
$\leq 1.7 \times 10^{-4}$	26.37	29.13	8.66	9.94	28.87	

1.7 × 10 ⁻⁶ > to 5.20 × 10 ⁻⁶	30.66	32.95	23.89	46.48	26.53	
5.2 × 10 ⁻⁶ > to 113.00 × 10 ⁻⁶	23.40	18.21	27.39	21.92	18.13	
>113.0 × 10 ⁻⁶	19.57	19.71	40.06	21.65	26.48	
Smoking intensity, total lifetime cigarettes, (%)						0.001
0	66.71	64.63	57.82	58.32	54.55	
0 > to 50,400	20.82	26.80	17.95	21.94	17.33	
50,400+	12.47	8.57	24.23	19.74	28.12	
Body Mass Index, kg/m ² , (%)						≤0.0001
<18.5	0.68	1.08	1.51	10.34	1.19	
18.5–25	19.32	30.16	21.73	45.12	29.33	
25–30	36.40	39.60	26.21	24.07	33.17	
30+	43.60	29.17	50.55	20.47	36.31	
Blood pressure status (%)						NA
Hypotensive	0.36	0.69	0.62	0.00	0.88	
Normotensive	52.16	61.53	38.15	65.21	47.99	
Pre-Hypertensive	33.23	27.98	36.42	30.31	37.89	
Hypertensive	14.25	9.80	24.81	4.48	13.24	
Diabetes (%)						0.04
Yes	7.01	10.34	13.69	9.72	6.80	
Borderline	2.72	3.52	2.60	0.47	1.93	
No	90.27	86.14	83.71	89.81	91.27	
Fasting Status, hours (%)						0.04
0–8	52.09	53.51	52.53	36.39	54.12	
8–12	20.78	24.60	27.67	39.98	22.87	
12+	27.13	21.90	19.80	23.63	23.01	
Liver Condition (%)						0.15
Former	96.26	95.06	98.43	96.66	97.92	
Current	1.93	3.61	0.33	3.07	1.54	
No Liver Condition	1.81	1.32	1.23	0.27	0.54	
Estimated Glomerular Filtration Rate, mL/min/1.73 cm ² , (%)						≤0.0001
Less than 60	85.54	81.89	74.38	77.13	60.59	
60–90	12.60	14.86	21.32	21.08	34.26	
Greater than 90	1.86	3.24	4.30	1.80	5.15	
Physical activity, metabolic equivalent-hours/week, (%)						0.007
0	27.69	25.83	32.42	19.62	20.41	
0>–4	6.66	9.56	6.56	11.14	4.61	
4>–40	33.42	30.66	27.58	32.40	41.58	
40+	32.24	33.95	33.44	36.84	33.41	

Data in each column are presented as the total number (%). NHANES: National Health and Nutrition Examination Survey; cig: Cigarettes.

Table 2.0A - Associations between Race/Ethnicity and Caffeine Metabolite Index using Multivariable Adjusted Linear Regression Models

Theophylline Index				Paraxanthine Index		
Ethnicity	Beta	95% CI	P-value	Beta	95% CI	P-value
Mexican American	0.59	0.44 to 0.74	<.0001	0.54	0.36 to 0.72	<.0001
Other Hispanic	0.57	0.41 to 0.73	<.0001	0.58	0.40 to 0.76	<.0001
Non-Hispanic Black	-0.13	-0.27 to 0.07	0.07	-0.08	-0.25 to 0.34	0.34
Other Race/Multiracial	0.73	0.16 to 1.30	0.02	0.89	0.27 to 1.51	0.008
White	Ref			Ref		

Table 2.0B - Associations between Race/Ethnicity and Caffeine Metabolite Index using Multivariable Adjusted Linear Regression Models

Theobromine Index				1-Methyluric Acid Index			5-Acetylamino-6-amino-3-methyluracil Index		
Ethnicity	Beta	95% CI	P-value	Beta	95% CI	P-value	Beta	95% CI	P-value
Mexican American	0.15	-0.07 to 0.38	0.17	0.23	-0.14 to 0.61	0.21	0.30	-0.12 to 0.72	0.15
Other Hispanic	0.10	-0.17 to 0.37	0.46	0.16	-0.20 to 0.53	0.36	0.40	-0.02 to 0.82	0.06
Non-Hispanic Black	-	-0.52 to 0.12	0.20	0.68	0.32 to 1.05	0.00	0.72	0.20 to 1.25	0.01
Other Race/Multiracial	0.30	-0.48 to 1.09	0.43	0.14	-0.48 to 0.76	0.64	0.15	-0.40 to 0.71	0.57
White	Ref						Ref		

Doctor for a Day Conference: A Sustainable and Scalable Model for Inspiring Diversity in Medicine

Julia Xia (MD), Cricket Gullickson (BA), Seema Mustafa (BA), Neal Sanjay Shukla (BS), Mary Helen O'Connor (PhD), Omar Lattouf (MD, PhD), Stacy Higgins (MD), Heval Kelli (MD).



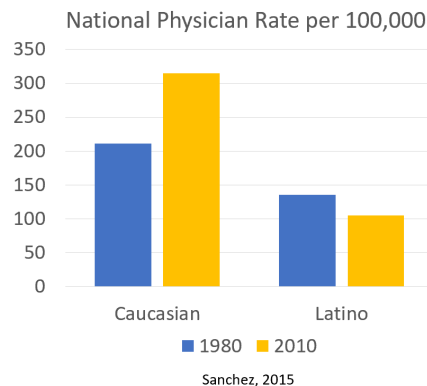
EMORY
UNIVERSITY
SCHOOL OF
MEDICINE



Introduction

Minority and low-income students are historically underrepresented in medical schools, and face additional barriers to entering the medical profession including lack of prior healthcare exposure, sparse mentorship, and inadequate support and advising services.

The worsening Latino physician shortage requires action on the national and local level to increase diversity in medicine.



The **Young Physicians Initiative (YPI)** was created as a partnership between Emory, Morehouse, and PCOM medical students and local school districts with the goal of supporting underrepresented students by:

- 1) Providing students with exposure to the medical field
- 2) Connecting students with medical student and physician mentorship.

<https://www.ypiprogram.com>

Methods

To increase accessibility to the health profession and mentors in the medical field, we piloted a **Doctor for a Day conference**, a 4 hour event organized by a small committee of medical students supervised by a physician.

The event consisted of:

1. **Physician speakers**
2. **Medical student panelists**
3. **An interactive medical case solved in small groups**
4. **A CPR simulation session with medical mannequins**
5. **Rotating pathology tables with organ specimens**
6. **A networking lunch with over 40 physicians, residents, and medical students.**

All attendees were asked to fill out an online survey to provide demographic information and feedback on the conference.



Results

Student Demographics 2019

Total Number of Students		N=82
Gender	Male	17% (14)
	Female	83% (68)
Level of Education	High School Student	13% (11)
	College Student	87% (71)
Ethnicity	Asian	20% (16)
	Black or African American	45% (37)
	Hispanic or Latino	13% (11)
	Middle Eastern	4% (3)
	Mixed Race	2% (2)
	White	17% (14)
English as 1st Language	Yes	77% (63)
	No	22% (18)
Highest Level of Parent Education	No formal education	9% (7)
	High School	20% (16)
	College Degree	32% (26)
	Medical Degree	7% (6)
	Other Graduate Degree	33% (27)

In the post conference survey, **100%** of students reported:

1. An interest in pursuing the medical profession
2. The conference increased their confidence and motivation in pursuing a career in medicine
3. The program was helpful in understanding the process of becoming a doctor
4. They gained experience networking with medical professionals

Summary and Conclusions

1. We were able to create an easily replicable and sustainable model for exposing low-income and minority students to a career in medicine that is low-cost, simple, reproducible, and scalable.
2. Our program was successful in improving knowledge about the pathway to a medical profession and increasing the confidence and motivation of 1st generation students in their pursuit of a career in medicine.
3. This annual program has the potential to increase the number of Latino individuals entering the healthcare workforce, which could greatly improve Hispanic health by providing greater representation of the Latino community in medicine.



Background

- Latino/as in the United States (U.S.) represent 18.3% of the population and are projected to increase to 28% by 2060.
- Despite the remarkable growth of the Latino/as population in the U.S., their mental health care needs are still not being met.
- No systematic literature review currently exists of interventions developed to reduce mental health stigma and increase mental health literacy among the Latino/a community.

Research Goals

1. Examine the methodological rigor of these intervention studies.
2. Describe the mental health literacy and stigma interventions developed for Latinos/as in the U.S.
3. Summarize the outcomes of these studies focusing on mental health literacy and stigma outcomes.

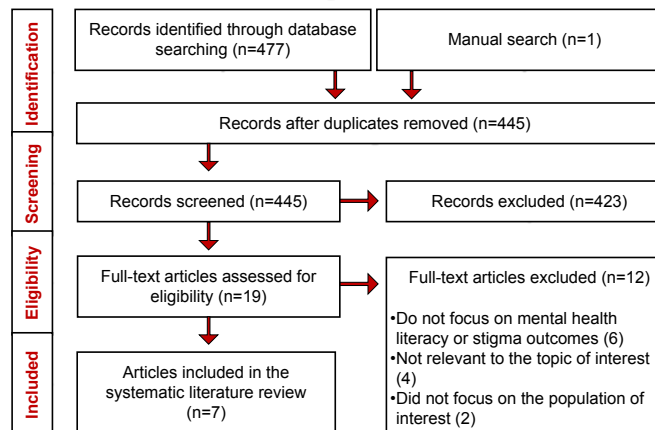
Methods

- Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) informed the systematic literature review.
- The Methodological Quality Rating Scale (MQRS) was used to assess the rigor of each study.
- Peer-reviewed journals articles were searched in multiple databases and a manual search.
- Studies were included if they met the following criteria:
 - Published in English or Spanish in a peer-reviewed journal between 2000 and February 2020 and conducted in the U.S.
 - Described a mental health literacy and/ or stigma intervention delivered to Latinos/a adults 18 years of age or older.
 - Evaluated the impact of the intervention on mental health literacy and stigma outcomes for Latino/as.

Results

- Our findings indicate that few interventions have been developed and tested to address these determinants of mental health care disparities.
- Seven articles met the inclusion criteria for this review.
- The total MQRS scores for the identified articles ranged from 5 to 10, with a median of 8.
- Three articles used a randomized control group design and four articles utilized single group pre/post designs.
- Most studies were small pilot studies with small samples and short follow-up periods of less than a month.
- Studies included in this review were conducted in California, Texas and North Carolina and most of these samples were Latinas of Mexican descent.
- The interventions tended to focus on depression and psychosis and incorporated a series of cultural and linguistic elements (e.g., soap opera narratives in both English and Spanish) to make them relevant, salient, and culturally appropriate to Latino/a communities.
- Our review of these intervention studies indicated that the existing interventions

Figure 1. PRISMA Flow Diagram



Strengths & Limitations

- To minimize publication biases, we followed the PRISMA guidelines
 - Searched 10 databases (e.g., APA PsycINFO, Applied Science & Technology Full Text, CINAHL Plus)
 - Included one manual search
 - Used an array of keywords
 - Used independent raters
 - Established measure to rate the methodological quality of eligible studies.
- The small number studies included in our review prevented us from conducting a more formal meta-analysis and from identifying which specific intervention elements were most effective for specific outcomes and groups.
- This limited number of published intervention studies could be a function of the lack of

Conclusion

- Findings highlight a significant deficit of mental health literacy and stigma interventions for the Latino/a population.
- Future research should continue investigating and developing more evidence-based anti-stigma and mental health interventions.
- Interventions that focus on improving mental health literacy and reducing stigma that are also culturally-grounded, theoretically-sound, and empirically-supported, are needed to achieve mental health equity for all Latino/as.

Contact Information

Nancy Jacquelyn Pérez-Flores
[e]: pnancy@wustl.edu
[t]: @nancyjperez26



Note: This work is supported by the National Institute of Mental Health (T32MH019960).

Evaluation of a Diabetes Prevention Program (DPP) in a Student-Run Free Clinic Setting



PRESENTER:
Nicole Kloosterman, M3

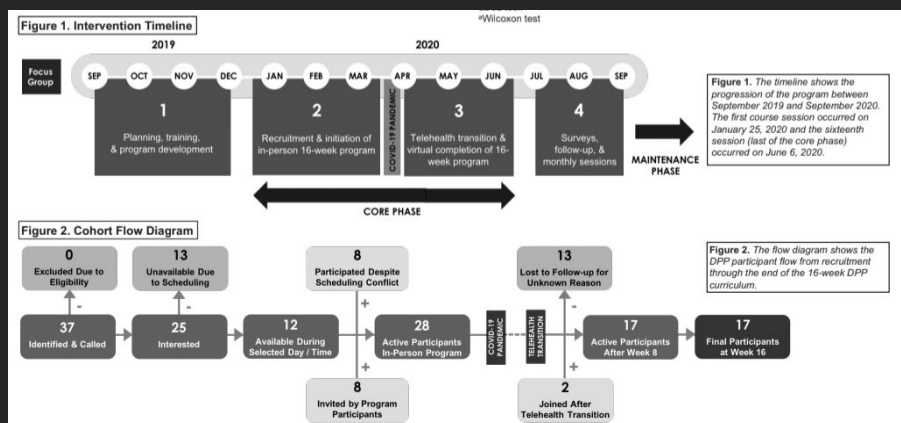
BACKGROUND:

The CDC's nationally-recognized Diabetes Prevention Program (DPP) can prevent or delay the development of type 2 diabetes in at-risk individuals.¹ Although low-resource and minority communities are among those at the highest risk², they have inferior DPP outcomes³, likely attributable to program cost and accessibility. This study evaluated whether a high-fidelity, reduced-cost 16-week DPP could be implemented by student volunteers and achieve the target 5% weight loss goal.

METHODS

1. Uninsured, Spanish-speaking participants and their invited guests were recruited from Vanderbilt University's student-run clinic.
2. Weekly DPP sessions were conducted using the CDC's Prevent T2 curriculum in Spanish, delivered in-person for 6 weeks and virtually for the remaining 10 due to the COVID-19 pandemic.
3. Participant attendance and weight data were collected throughout the program.
4. Pre- and post-program surveys were administered to student leadership with questions about acceptability, adoption, and appropriateness of the program implementation.

A student-run DPP can offer a reduced cost strategy to bring a clinically effective program to underserved communities and impact the professional education of future healthcare professionals.



Take a picture to
download the abstract

RESULTS:

- A total of 17 participants attended 16 weekly sessions (6 in-person and 10 Zoom sessions)
- Each participant attended 9.4 sessions (SD 2.1). There were 9.2 participants per in-person and 10.5 per Zoom session.
- The median weight loss achieved by participants was 5.9% of their total body weight. Weight loss was independent of age, sex, pre-program BMI, and English proficiency.
- 13 of the 17 participants (76.5%) achieved the 5% weight loss goal.
- Facilitators of successful adoption cited by students included: financial funding, readily available patient pool, and faculty commitment and guidance
- 100% (n=10) of students leaders believed that the program was successful and should continue for this patient population.

Table 1: Learner Outcomes

	Degree of Comfort (5= least comfortable 100= most comfortable)	
	Pre Survey (n=14)	Post Survey (n=10)
How comfortable do you feel providing motivational interviewing to a patient seeking to make lifestyle changes?	68.0	76.0
How comfortable do you feel talking to a patient about barriers to lifestyle change?	67.5	86.0
How comfortable do you feel talking to a patient about their exercise habits?	70.0	80.0
How confident do you feel coaching a patient about the risks of developing diabetes?	61.0	76.5
How knowledgeable do you feel regarding the practical challenges faced by low-income patients trying to make exercise and diet-related lifestyle changes?	61.0	85.0

REFERENCES/ACKNOWLEDGEMENTS:

The Diabetes Prevention Program (DPP) at Shade Tree Clinic was funded using a Vanderbilt Institute of Clinical and Translational Research, VR53470 Grant Award. We would also like to thank Dr. Carolyn Audet at the VUMC Department of Health Policy for her expertise and guidance in developing this project.

- [1] Diabetes Prevention Program Research Group. 10-year follow-up of diabetes incidence and weight loss in the Diabetes Prevention Program Outcomes Study. *Lancet* 2009;374(9702):1677-1686.
- [2] Agardh E, Allebeck P, Hallqvist J, Moradi T, Sidorchuk A. Type 2 diabetes incidence and socio-economic position: A systematic review and meta-analysis. *Int J Epidemiol* 2011;40(3):804-818.
- [3] Ritchie ND, Kaufmann P, Sauder KA. A national effort to prevent type 2 diabetes: Participant-level evaluation of CDC's national diabetes prevention program. *Diabetes Care* 2017;40: 1331-1341. *Diabetes Care* 2017;40(11):e161-e162.

Nicole Kloosterman • Meredith Huszagh • Lina Sulieman, PhD • Rosette Chakkalakal, MD • Kevin Niswender, MD, PhD

VANDERBILT School of Medicine

Diana Perez¹, Kiah Andrews¹, Alexandra Perez¹, Michal Segall¹, Isidra Rodriguez-Veve¹, Laura Townsend¹, Stacy Lugo², Sarah Wang¹, Nereida Correa^{1,3}, Jill Raufman¹, Agustín Díaz-Rodríguez⁴

Albert Einstein College of Medicine, Bronx, NY, United States¹, CUNY School of Medicine, New York, NY, United States², North Central Bronx Hospital, Bronx, NY, United States³, UNIBE School of Medicine, Santo Domingo, Dominican Republic⁴.

BACKGROUND

The Dominican Republic (DR) is reported to have one of the world's highest rates of cesarean section (CS) with an estimated 58.9% of live births occurring through surgical procedure (1). Between the years 2002 and 2018, the country's CS rate has nearly doubled despite inappropriate CS use contributing to increased risk of maternal and perinatal mortality in low-income and middle-income countries (LMICs) (2,3). Several hypotheses for the nation's overmedicalization of childbirth have been proposed based predominantly on anecdotal evidence. Resource limitations, overburdened public hospitals and, notably, patient preference are believed to be contributing factors. Though some research has been conducted on the implications of the DR health system on maternal health, there remains a paucity of clinical data on the role of medical and individual determinants in the DR's high rate of cesarean sections (4,5).

OBJECTIVES

- Identify factors contributing to the rising CS rate in the DR
- Gain insight into women's perceptions of their pregnancy and delivery by cesarean.

METHODS

Adult women (age > 18 years) who had given birth by cesarean section at a public hospital in Santo Domingo, Dominican Republic were invited to complete a Spanish-language version of the validated *Cesarean Decision Survey* (6), which they filled out within 14 days of their CS. Informed consent was obtained, permitting a thorough review of the participant's obstetric history in the medical record. 105 women were recruited and completed the questionnaire, 4 were excluded from the final analysis due to survey incompleteness or unavailable medical records. Descriptive and statistical analysis were performed using IBM SPSS Statistics Version 25.0.

References

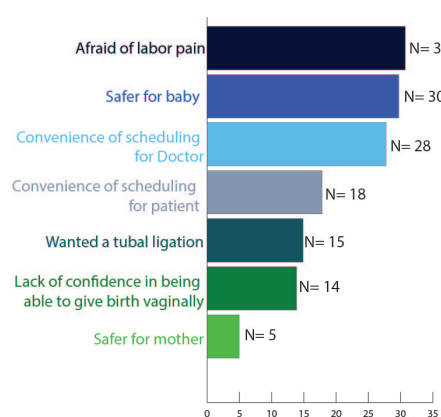
[illegible]

RESULTS

TABLE 1: PREVALENCE OF PRENATAL AND INTRAPARTUM COMPLICATIONS

	Primary CS (n=38)		Repeat CS (n=63)	
Hypertensive Disorders of Pregnancy (Pre-eclampsia, eclampsia, etc.)	N	%	N	%
	15	39	19	30
Urinary Tract Infection	10	26	7	11
Anemia	9	24	16	25
Cervicovaginitis	9	24	12	19
Obesity	5	13	9	14
Macrosomia	7	18	2	3
Gestational Diabetes Mellitus	5	13	4	6
Fetal complication (Risk of fetal loss, distress, fetal wellbeing)	8	21	2	3
Oligohydramnios	7	18	0	0
Other (Placental abnormalities, Hemorrhage, etc.)	26	68	19	30
Average number of comorbidities per participant	2.66		1.43	
Percentage of participants with 1 or more comorbidity/complication	100%		50%	

FIGURE 1: PERCENTAGE OF SELF-REPORTED MOTIVES FOR C-SECTION



- Only **6 (5.9%)** participants indicated that they had **requested** their CS.
- Research medical record data indicated that **86% of participants** had 1 or more **prenatal comorbid condition or complication** that increased their risk for CS.
- When asked to rank their top 3 reasons for having their current CS, the factors ranked most often by participants (excluding prior CS), were their **doctor's recommendation** (n=45, 44.6%), an **emergency** (n=39, 38.6%), and **safety of the baby** (n=15, 14.9%).
- When asked to identify the top 3 sources of information useful in their decision-making about birth options, participants noted their **doctor** (n=84, 83.1%), **family** (n=41, 40.6%), and the **internet** (n=38, 37.6%) as most important.

CONCLUSIONS

- Although women receive most of their information regarding pregnancy and delivery options from their physician, women reported receiving little information regarding the risks and expectations about CS.
- Contrary to anecdotal reports, maternal request for a CS was infrequent, except in cases in which patients desired a tubal ligation.
- Potentially fatal prenatal complications (eg, hypertensive disorders of pregnancy) were common in the population of Dominican women undergoing CS in our study. This suggests that the overuse of CS may be part of a broader strategy to address high maternal mortality, though a reduction in maternal mortality has not yet been recorded in recent data.

STUDY IMPLICATIONS

Our findings suggest that:

1. There is a need for further research on cost-effective interventions to reduce prenatal complications and potentially the CS rate within an overburdened medical system.
2. There is a need to optimize patient-provider communication to address misconceptions about birthing options in a population where cesarean section is becoming the norm.



Hispanic Resident Diversity Trends in Surgical Specialties: A Study At a Single Academic Medical Institution

Omar Cespedes- Gomez, M.P.H.¹, Anita Mohan, M.B.B.S. Ph.D.², Joseph Banuelos, M.D.³, Trishul Kapoor, M.D.⁴ Steven L. Moran, M.D.⁵, Stephanie F. Heller, M.D.⁶, Eric J. Dozois, M.D.⁷, Heidi Nelson, M.D.⁸, Jorys Martinez-Jorge, M.D.⁹,

Department of Surgery, Division of Plastic Surgery, Division of Trauma, Critical Care, and General Surgery, Division of Colon and Rectal Surgery

Mayo Clinic, Rochester, MN

Research Purpose

- To retrospectively determine Hispanic resident admission trends in surgical subspecialty training at our institution, and to compare data with national trends.

Methods

- Retrospective review of PGY1 demographic data for residents in plastic surgery, general surgery, orthopedics, ENT, urology, and neurosurgery between 2011-2018 from a self-reported applicant database at our institution.
- National data for residents in each specialty was extracted from annual reports published by the Accreditation Council of Graduate Medical Education (ACGME).
- Descriptive statistics were used to determine the percentage of Hispanic residents in each specialty.

Results

- Hispanic residents, overall, made up less than 10% of all residents in each surgical specialty between 2011-2018 at our institution and nationally.
- At our institution, Hispanic residents made up a larger percentage of all residents in plastic surgery (10%), general surgery (7%), and urology (8%) compared to nationally (5%, 5%, and 3%, respectively).
- Orthopedics showed comparable percentages of Hispanic residents (3% each) while ENT (0%, 3%) and neurosurgery (0%, 4%) showed a lower percentage of Hispanic residents at our institution.

References

- Education AC for GM. ACGME Data Resource Book. <https://www.acgme.org/About-Us/Publications-and-Resources/Graduate-Medical-Education-Data-Resource-Book>. Accessed July 12, 2020.
- Silvestre J, Serfetti JM, Chang B. Racial and Ethnic Diversity of U.S. Plastic Surgery Trainees. *J Surg Educ*. 2017;74(1):117-123. doi:10.1016/j.jsurg.2016.07.014
- Obeld S, Fanning A, Hultman CS. Diversity and Inclusion in Plastic Surgery Education. *Plast Reconstr Surg - Glob Open*. 2017;5(9):e1469. doi:10.1057/GOX.00000000000001469
- Ullota JG, Viramontes O, Ryan G, Wells K, Maggard-Gibbons M, Moreno G. Perceptual and Structural Facilitators and Barriers to Becoming a Surgeon. *Acad Med*. 2016;93(9):1326-1334. doi:10.1097/ACM.0000000000000262
- Sobel AD, Cox RM, Ashinsky B, Ebersson CP, Mulcahey MK. Analysis of Factors Related to the Sex Diversity of Orthopaedic Residency Programs in the United States. *J Bone Jt Surg*. 2018;100(11):e79. doi:10.2106/UBJS.17.01202

Figure 1a. Comparison of average Hispanic acceptance rates (%) into subspecialty surgical training programs between 2011-2018 at a single academic institution.

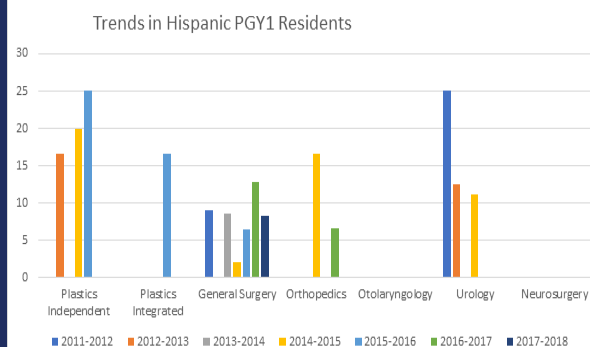


Figure 1b. Comparison of national average Hispanic acceptance rates (%) into subspecialty surgical training programs between 2011-2018

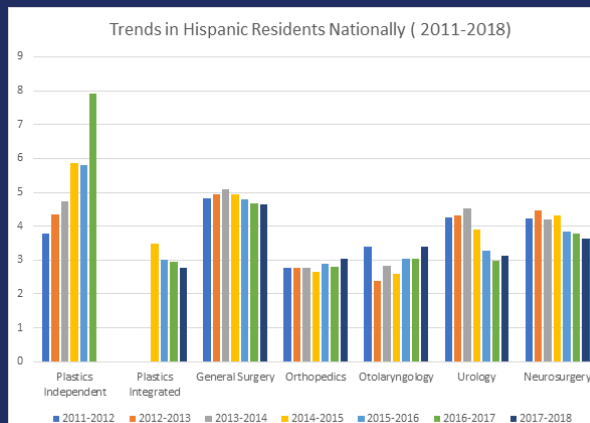
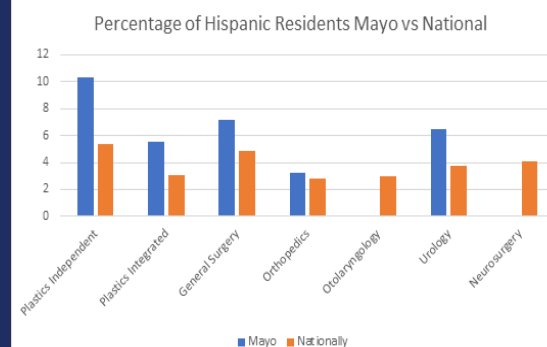


Figure 1c. Comparison of national average Hispanic acceptance rates (%) into subspecialty surgical training programs with a single academic institution between 2011-2018



Discussion

- There has been an increasing focus amongst governing bodies of U.S. medical education to increase racial and ethnic diversity amongst healthcare providers as part of a multifaceted approach to diminish health care disparities in the U.S.
- In a review by Abelson et al. (2017), while total number of medical students may have increased over the years, between 2005 to 2014, there was reported decline in graduating Hispanic medical students 37.4% respectively over the study period.
- At the other end of the surgical pipeline, it is recognized that diversity among academic surgical faculty lags behind other medical disciplines, despite initiatives and programs create to increased representation of underrepresented minorities among surgical trainees and faculty.
- It is possible that minorities may have an interest in surgery, but there may be more of an issue with exposure and positive reinforcement to pursue surgical careers.
- Local and national initiatives have been described in promoting diversity in surgery through mentorship programs. National conferences to promote diversity at medical student, resident and faculty levels continue to grow. Furthermore, there is a role to train selection committees responsible for trainee recruitment or career development in surgery, to recognize and highlight how unconscious bias can impact decision making and negatively impact diversity and inclusion efforts at all levels of the surgical pipeline.

© 2017 Mayo Foundation for Medical Education and Research

Training Future Physicians to Work with Medical Interpreters (MIs) and Limited English Proficiency (LEP) Patients

Julia Schroer, MS, MBA¹, Maria Cristina Marcos¹, Joshua D. Madera, MS¹, Joyce Rowan²

1. Geisinger Commonwealth School of Medicine

2. Certified Healthcare Interpreter - Spanish

Purpose

Medical students at Geisinger Commonwealth School of Medicine were asked to complete a baseline assessment to determine readiness to interact with LEP patients and MIs in a clinical setting. In addition, explicit knowledge of MI best practices was assessed using a clinical scenario and free-text responses. Students attended a virtual training session led by a Certified Healthcare Interpreter that discussed the best practices in working with MIs and LEP patients. The seminar was developed to succinctly address key “do’s and don’ts” of working with MIs and LEP patients from an interprofessional perspective. Upon conclusion of the training session, attendees were asked to complete the same assessment to determine post-intervention readiness to interact with LEP patients and MIs.

Methodology

LEP patients frequently encounter cultural and language barriers in the U.S. health system. In 2017, only 29 of 147 LCME accredited medical schools offered a curriculum that taught students how to interact with MIs and/or LEP patients.¹ To further encourage incorporation of cross-cultural and LEP training into the undergraduate medical education curriculum, we developed an educational seminar designed to prepare medical students to provide equitable care to a diverse and often disenfranchised patient population. We utilized baseline and post-intervention assessments to demonstrate the impact of the seminar on medical student knowledge and preparedness to work with MIs and LEP patients.

Results

Following the MI training session, students reported an increase in their preparedness ($t = 2.33$) and comfort ($t = 2.52$) in working with an MI, $p < 0.05$. In addition, students also felt more prepared to identify when a MI is needed in a clinical setting ($t = 2.36$), $p < 0.05$. Furthermore, student assessment of the provided clinical scenario demonstrated a significant increase in explicit knowledge of the best practices necessary when working with an MI ($t = 2.20$), $p < 0.05$.

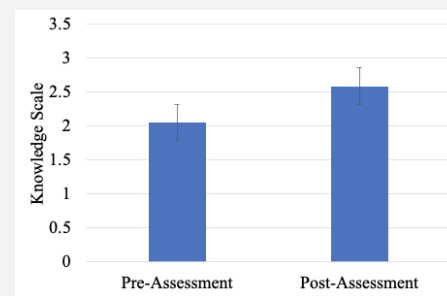


Figure 2. Explicit knowledge of working with MIs in a clinical setting

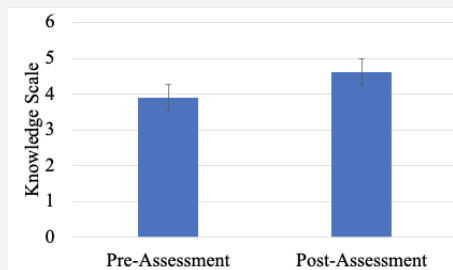


Figure 1. Self-reported knowledge of when a MI is needed

Conclusions

Our findings suggest that seminars led specifically by trained MIs and focused on the importance of best practices in working with MIs can significantly improve medical student level of comfort and preparedness to interact with LEP in the clinical setting. Moreover, our seminar can easily be implemented into existing clinical skills curricula to address this training gap in undergraduate medical education.



Geisinger
Commonwealth
School of Medicine

Acknowledgements

Our team would like to thank Mary Lawhon Triano, MSN, CRNP-C for her guidance and encouragement in executing this project.

References

1. Himmelstein, J., Wright, W., Wiederman, M. U.S. medical school curricula on working with medical interpreters and/or patients with limited English proficiency. *Advances in Medical Education and Practice*, 2018; 2018(9):729-733.

Reduction of Costs for Patients and Regional Healthcare System through Bilingual Free Clinic in Norfolk, Virginia

Presented by Amanda Tosi, MS3 at Eastern Virginia Medical School (contact: tosiac@evms.edu)

Co-authors: Jonathan Taylor-Fishwick, MS4; Alex Im, MS3; Stafford Brown III, MS3; Lydia Cleveland, MPH; Alexandra Leader, MD, MPH

Department of Pediatrics, Eastern Virginia Medical School, Norfolk, VA

Purpose

In 2016, medical debt was attributed to almost half of all U.S. bankruptcies with three in ten uninsured, nonelderly adults reporting still paying off at least one medical bill.¹ Free clinics serve as one way for uninsured patients to access care without facing significant financial constraints or bankruptcy. La Clínica Comunitaria Esperanza (CCE) is a Spanish-speaking free clinic formed in August 2016 by Eastern Virginia Medical School (EVMS) students to serve the local uninsured, Hispanic population of Hampton Roads, Virginia. The clinic operates twice monthly to provide routine health maintenance, sick visits, and a range of laboratory services. This study quantifies the cost saved to the Hampton Roads health care system and its uninsured patients through services provided at CCE.

Methodology

A chart review was conducted of 173 adult patients seen in CCE from August 11, 2016 to June 20, 2019. This review determined the quantity and type of services provided in clinic during this time period, including new vs. established care visits and laboratory tests provided. The 2019 chargemaster prices from the local hospital, Sentara Norfolk General Hospital, were utilized to quantify what patients would be expected to pay for receiving similar care in the hospital setting.² As the hospital and Emergency Department are frequently seen as the alternative healthcare provider for uninsured patients, these are the charges Esperanza patients would be expected to pay for receiving laboratory services at these facilities. Additionally, doctors' fees, which uninsured patients would be expected to pay out of pocket, were estimated using CPT codes that many providers use for billing.³

Results

I. Labs

Test type	Number Performed	Cost Per Test	Total Savings
Comprehensive Metabolic Panel	57	\$324	\$18,468
Hemoglobin A1c	55	\$123	\$6,765
Lipid Panel	51	\$116	\$5,916
Urinalysis	25	\$89	\$2,225
Microalbumin	15	\$40	\$600
Urine Pregnancy	12	\$101	\$1,212
Thyroid Stimulating Hormone	11	\$144	\$1,584
Hemoglobin	10	\$19	\$190
Blood Glucose	9	\$61	\$549
Electrocardiogram	8	\$117	\$936
			\$38,445

*Cost per test values obtained from 2019 Sentara Chargemaster

II. Appointments

- 173 patients served
- 90 initial appointments
- 83 follow-up appointments

Using appointment fee data from the Center for Medicare & Medicaid Services³, it was determined that on average a new patient appointment costs approximately \$76.71 out of pocket and a follow-up costs \$51.46. This results in the following cost savings:

- \$6,903.90 = \$76.71 x 90 new appointments
- \$4,271.18 = \$51.46 x 83 follow-up appointments
- **\$11,175.08** = total appointment value

III. Overhead

- Medical services provided for free by physician and student volunteers
- Clinic space provided for free by the Norfolk Department of Health (after hours)
- Medical supplies funded by institutional funds and corporate donations, which are estimated to be of \$1,891.09 in total value

Conclusion

La Clínica Comunitaria Esperanza provides a significant cost savings to the local Hampton Roads Hispanic patient population and to the local health care system. By providing \$38,445 in lab tests and \$11,175 in appointments, CCE has provided a free care that totals a value of \$49,620 over 22 months. Since its inception, CCE has helped patients receive necessary care while avoiding significant financial constraints and/or bankruptcy. Furthermore, CCE has reduced the burden on the local healthcare system to treat patients that typically do not have the financial means to pay hospitals for care. At CCE, these patients receive consistent follow-up care in a Spanish-speaking, culturally competent clinic setting, which includes providing preventive care to reduce the number of hospital visits for complications. CCE not only provides a medical home for the local Hispanic population but a safety net to avoid financial constraints associated with obtaining healthcare.

References

1. Tolbert, J., Orgera, K., Singer, N., Damico, A. (2019, December). Key Facts about the Uninsured Population. Kaiser Family Foundation. Retrieved from <https://www.kff.org/uninsured/issue-brief/key-facts-about-the-uninsured-population/>
2. Sentara Hospitals. (2019). Sentara Hospital Charges Transparency. Retrieved from <https://www.sentara.com/hampton-roads-virginia/billing/understanding-prices.aspx>
3. Center for Medicare & Medicaid Services (2019, December). Physician Fee Schedule Search. Retrieved from <https://www.cms.gov/apps/physician-fee-schedule/search/search-results.aspx?Y=0&T=0&HT=0&CT=2&H1=99213&C=88&M=5>

SALIENT FACTORS AMONG HISPANIC PARENTS IN SOUTH FLORIDA RURAL COMMUNITIES FOR VACCINATING THEIR CHILDREN AGAINST HUMAN PAPILLOMAVIRUS

Presenter: Melanie Fernandez, B.A., University of Miami, fernandezmelanie18@yahoo.com

PURPOSE

Few studies have tried to understand the factors related to HPV vaccination among Hispanics living in rural communities in the United States (US). Nationally, HPV vaccination among Hispanics is suboptimal (26.1%) compared to the HealthyPeople 2030 goal of 80% and even more suboptimal in rural communities. This study aimed to determine the salient factors among Hispanic parents for vaccinating their children against HPV and for designing a future HPV prevention intervention for Hispanics.

METHODOLOGY

A descriptive qualitative design was used. Recruitment site was 66% Hispanic. Inclusion criteria: (a) self-identifying as a Hispanic mother or father and (b) being between 18 and 50 years of age. Saturation was reached after conducting four focus groups with 23 Hispanic parents from rural communities in South Florida. There were two groups of Hispanic mothers (n = 13), one group of Hispanic fathers (n = 3), & one mixed group (n = 7). Directed content analysis using the Theory of Planned Behavior (TPB) constructs was used to analyze the transcripts.

RESULTS

All TPB constructs were identified as salient factors for HPV vaccination including background factors (e.g., gender, religion, HPV vaccine awareness and knowledge, culture, emotion, perceived risk, and past experiences), attitudes towards the behavior, perceived norms, perceived behavioral control, actual control, intention, and behavior. Participants consisted of 18 mothers and 5 fathers, 22 to 49 years old, annual household income \$8400 to \$48,000. Top three countries of origin were Mexico (n = 9), the US (n=5), and Guatemala (n=4). Most were Christian (86.9%) and had 2-3 children.

Examples of Participant Quotes from Salient TPB Themes

Background Factors	Culture (Machismo): "...if the father is very machista he does not like to speak about it, if the mother does not obey the father, [rather] she will not do it because the father will get upset."	Culture (sexual taboos): "...today's relationships with the children are much better than in the past. At least before not even crazy one dared to ask [about sexual topics] to one's mother out of shame, out of respect, out of whatever."
Attitude Towards the behavior	Positive: "Well, we do not know that it will protect 100% but at least uh, security to feel calmer because one is not always with the children."	Negative: "... but already the human papilloma vaccine, there are girls or teenagers who end up in wheelchairs, they cannot move the spine, they are very strong effects, they definitely end up in a wheelchair, there are others that don't."
Perceived Norm	Perceived social pressure from acquaintances: "...seeing it after one goes through a bad experience well, it is better to prevent...to have a family member who has dealt with cancer...not [related to HPV] but in any case, one is left with the expectation that it is better to prevent."	
Perceived behavioral control	Facilitator: "[Offering vaccines in schools] it is good for some parents, for example, who work and cannot take them to the clinics."	Barriers: "...when it comes to the shots [my wife] is cool and I cry so you know, I don't like shots for the kids"
Actual control	Lack of supply: "...my daughter turned 13 but I spoke with the [health care provider] and told them that I wanted them to give it to her. But they told me that they did not have it at that moment, that later when I took her to another appointment if they had it they would give it to her".	

CONCLUSION

Addressing HPV vaccination by developing educational programs based on the TPB and tailored to meet the needs of Hispanic parents is urgently needed to prevent HPV infection among Hispanics in rural US communities. This approach can also serve as a directive to target HPV vaccination among Hispanics in other rural areas in the US. Furthermore, healthcare providers must proactively promote and recommend the HPV vaccine (HPVV) using culturally sensitive approaches, educate and encourage Hispanic parents on having sex-related discussions with their children, include children in the HPVV education and decision, bundle the HPVV with other child vaccines when possible, and utilize reminder systems to ensure completion of the vaccine series.

Salient TPB themes among Hispanic parents for HPV vaccination

Themes	Sub-themes
Background Factors <i>(Demographic, relational, and informational factors)</i>	a. Gender b. Religion c. HPVV Awareness d. HPVV Knowledge e. Culture f. Emotion g. Perceived Risk h. Past experiences
Attitudes towards the behavior <i>(Individual's beliefs about a behavior and its consequences)</i>	a. Positive b. Negative
Perceived norm <i>(Perceived social pressure from other individuals)</i>	a. Perceived social pressure from HCPs b. Perceived social pressure from acquaintances c. No perceived social pressure d. Family as referents
Perceived behavioral control <i>(Facilitators, barriers, and self-efficacy in doing a behavior)</i>	a. Facilitators b. Barriers
Actual control <i>(External factors or skills that may facilitate or deter doing a behavior)</i>	a. Lack of supply
Intention <i>(An individual's motivation to do a behavior)</i>	
Behavior <i>(The performance of the health-promoting behavior)</i>	

TPB = Theory of Planned Behavior; HPVV = Human Papillomavirus Vaccine; HCP = Health care provider's

References:

1. Fernández-Pineda, M., Cianelli, R., Villegas, N., Matsuda, Y., Iriarte, E., & Peragallo, N. (2020). Salient factors among Hispanic parents in South Florida rural communities for vaccinating their children against human papillomavirus. *Journal of Pediatric Nursing*, 54, 24-33. <https://doi.org/10.1016/j.pedn.2020.05.016>.
2. Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
3. Centers for Disease Control and Prevention (CDC) (2018c). TeenVaxView: 2017 adolescent human papillomavirus (HPV) vaccination coverage dashboard. Retrieved from <https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/hpv/dashboard/2017.html>.
4. Office of Disease Prevention and Health Promotion (ODPHP) (2020). Immunization and infectious diseases. Retrieved from <https://www.healthypeople.gov/2020/topicsobjectives/topic/immunization-and-infectious-diseases/objectives>.

Addressing health disparities in diabetes among Hispanics using shared medical visits and motivational interviewing



joves002@fiu.edu

Juan C. Oves Jr., MPH, Dan Tran, Maryse Pedoussaut, MD. Department of Humanities, Health, and Society, Herbert Wertheim College of Medicine, Florida International University, Miami, FL, USA

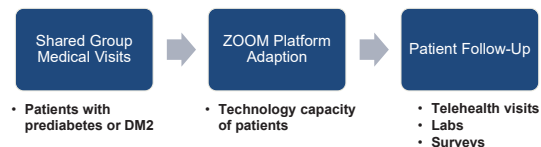
Background

Type 2 diabetes mellitus (DM2) accounts for over 95% of all diagnosed patients with diabetes in the U.S. DM2 is a chronic disease affecting the metabolism of glucose through the insufficient production of insulin and/or the gain of resistance to the insulin produced. The etiology of DM2 is multifactorial and is influenced by various environmental and genetic factors still not well understood. Some studies have shown that being overweight, obese, and physical inactivity are risk factors contributing to the development of DM2. Florida is estimated to have 2.4 million people living with diabetes and over 5.8 million with prediabetes. In Miami-Dade County, health disparities exist among minority populations, including differences in education and socioeconomic status. Florida adults with less than a high school education have a higher prevalence of diabetes than other populations with a high school education, who attended some college or graduated college (BRFSS). Minority populations such as African Americans and Hispanic/Latino Americans have a higher risk of developing prediabetes and DM2. Hispanic/Latino Americans are more likely than non-Hispanic whites to develop DM2. The CDC reports that 1 in 2 Hispanic/Latino adults will develop DM2 in their lifetime. Although the largest minority population in Miami-Dade County, Hispanics/Latinos face various challenges with diabetes that include poor glucose control, elevated cholesterol, obesity, adherence to medication, depression, and inadequate health education.



Methods

Through a public health approach, the NeighborhoodHELP program at the FIU Herbert Wertheim College of Medicine provides shared group medical visits for patients enrolled in the program diagnosed with prediabetes or DM2. Patients enrolled in the program are reside in Miami-Dade County and have no health insurance or access to health services. The NeighborhoodHELP program provides access to free healthcare services and treatments. Through the collaboration of a team of physicians, nurses, and medical students, the shared group medical visit focuses on providing health education and support on diabetes management. The medical group visit intervention uses motivational interviewing, health education, mindfulness techniques, and empowerment to increase self-efficacy among participants and improve glucose control. The behavioral intervention was recently adapted to a digital platform to reach patients during the COVID-19 pandemic.



Preliminary Results

Figure 1. Shared Group Medical Visit Components

Intervention Components	Component Details
Welcoming & inclusive environment	Group establishes rules and shares their stories regarding diabetes.
Mindful eating	Teaching mindfulness to increase awareness of individual emotions and thoughts on food.
Health Education	Provide health education on diabetes management, nutrition, and physical activity. Including an understanding of lab values.
Group Motivational Interviewing	Patient-centered approach to elicit patient motivation to change specific behaviors.

Results are preliminary, but participants in shared group medical visits have expressed increased self-efficacy, knowledge, and are more aware of the importance of diabetes management compared to a one-to-one medical visit. The program is currently in the process of collecting other parameters such as health outcomes and following patients longitudinally.



Figure 2. Constructs Measuring DM2 Management



Conclusion & Recommendations

As an epidemic of obesity continues to increase among populations in the United States, underserved minority populations such as Hispanics and Latinos who face many health disparities such as diabetes and cardiovascular diseases necessitate an increase in funding and the development of behavioral interventions/programs that integrate group medical visits to increase knowledge, awareness, and self-efficacy in diabetes management and overall reduce morbidity and mortality. Such programs may provide a welcoming and inclusive environment for participants to learn and support each other in managing a chronic disease and improving the patient's overall health and well-being. Since the COVID-19 pandemic, studies have reported a bidirectional relationship between diabetes and COVID-19, elucidating the risks of becoming infected with COVID-19 while living with diabetes and the risk of developing diabetes and other complications when infected with COVID-19. Also as a result of the pandemic, many in-person interventions have been altered or dismantled due to the risk of exposure, placing patients living with diabetes or prediabetes at risk of following out care and further developing diabetes-related morbidities. As this pandemic continues, as primary care physicians, we must be on the frontline in strengthening our support and increasing innovations to address the many chronic diseases affecting minority populations in the U.S., such as diabetes.

Acknowledgements

We would like to thank the FIU Herbert Wertheim College of Medicine NeighborhoodHELP program and all participating faculty, students, and staff.

Berry DC, Williams W, Hall EG, Heroux R, Bennett-Lewis T. Imbedding Interdisciplinary Diabetes Group Visits Into a Community-Based Medical Setting. *Diabetes Educ*. 2016;42(1):96-107. doi:10.1177/0145721715620022

Cunningham AT, Delgado DJ, Jackson JD, et al. Evaluation of an Ongoing Diabetes Group Medical Visit in a Family Medicine Practice. *J Am Board Fam Med*. 2018;31(2):279-281. doi:10.3122/jabfm.2018.02.170373

Uncommon Consequences of SARS-CoV-2 On The Nervous System

Natalie Perez-Mendez
M3 Medical Student
Poznań University of Medical Sciences
perezmendez.natalie@gmail.com

Purpose

The purpose of this case report is to present a case of a healthy individual who now suffers from new-onset neurological symptoms since obtaining SARS-CoV-2 infection and how it may warrant further investigation into how and why the novel coronavirus infiltrates nervous tissue.

Methodology

- This case report was retrospectively written after extensive analysis of the patient's electronic medical record and review of the patient's clinic visits with the internal medicine attending.

Results

- A 52-year-old Hispanic female with no prior history of nervous system pathology presented to our outpatient clinic with intermittent neuropathy, intermittent amnesia, hair loss, and intermittent rash after having COVID-19.
- The patient first complained only of chest tightness, fever, and shortness of breath during the initial telemedicine encounter.
- She was prescribed a one week course of oral prednisone followed by dexamethasone intramuscular injections daily for 2 weeks.
- Approximately 2 months later, after the resolution of the respiratory symptoms and testing negative for SARS-CoV-2 (RNA, Qualitative NAAT) twice, the patient returned to the clinic complaining of severe muscle aches, sciatica-like pain down both lower extremities, and nerve-impingement pain starting at the neck radiating along both upper extremities. She also complained of intermittent amnesia, chronic fatigue, hair loss, and dermatitis affecting the upper arms and waist. The aforementioned symptoms were refractory to oral NSAIDs and topical diclofenac.
- It was then decided to try cyanocobalamin intramuscular injections.
- This resolved much of the patient's symptoms for several days, but they did eventually return.
- The injection was administered again and the patient's symptoms resolved.
- Therefore, it was decided to administer 1000 mcg of cyanocobalamin to the patient every other day which has allowed her to return to normal daily lifestyle functioning.

Figure 1

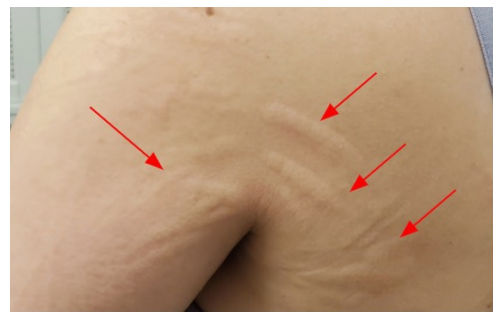


Figure 1: Red arrows point to upper extremity dermatologic manifestations of COVID-19 sequelae.

Conclusion

- Nervous system consequences are generally overlooked when managing patients with COVID-19.
- Here we offer evidence that new-onset neurological symptoms may be debilitating byproducts of SARS-CoV-2 possible attack on the nervous system.
- Based on our patient's positive response to regular cyanocobalamin injections, we believe further research is warranted to investigate its role as a potential part of the therapeutic regimen of the prolonged COVID-19 sequelae in the outpatient setting.

Use of Published AAMC Data as an Indicator of Progress in Medical School Recruitment of Underrepresented Minorities: A Pennsylvania State Analysis

Nicolas J. Echeverria, B.S.¹, Jordan J. Juarez, M.S.¹, Ana M. Gamero, Ph.D.²



¹Lewis Katz School of Medicine at Temple University; ²Department of Medical Genetics and Molecular Biochemistry, Fels Cancer Institute for Personalized Medicine, Lewis Katz School of Medicine at Temple University, Philadelphia, PA

BACKGROUND AND OBJECTIVE

- Increasing the number of minority physicians is essential for mitigating health disparities.¹
- Undergraduate minority pipeline programs have been established to increase underrepresented minorities (URM) recruitment.
- This study aims to elucidate trends in medical school applications from URM undergraduate students from the three largest publicly funded, state-affiliated universities in Pennsylvania.

METHODS

- Applicant data was retrieved from AAMC *FACTS: Applicants and Matriculants Data* and demographic data from Common Data Sets (CDSs) was obtained for Pennsylvania State University, Temple University, and the University of Pittsburgh from application cycles spanning 2016-2020.
- An analysis was conducted to compare the proportion of URM medical school applicants to the proportion of total URM undergraduate students at each university.

RESULTS

Comparison of Proportion of Medical School Applicants to Proportion of total Undergraduate Students by Race/Ethnicity

Table 1: University of Pittsburgh - Application Cycle

	2016-2017	2017-2018	2018-2019	2019-2020
Race/Ethnicity of Medical School Applicants				
White	--	--	--	--
Black	+	+	+	+
Latino	+	+	INSUF	INSUF
Asian	+	--	+	+
AI	INSUF	INSUF	INSUF	INSUF

Table 2: Temple University - Application Cycle

	2016-2017	2017-2018	2018-2019	2019-2020
Race/Ethnicity of Medical School Applicants				
White	INSUF	INSUF	INSUF	INSUF
Black	+	+	+	+
Latino	INSUF	INSUF	INSUF	INSUF
Asian	INSUF	INSUF	+	INSUF
AI	INSUF	INSUF	INSUF	INSUF

Table 3: Pennsylvania State University, Application Cycle

	2016-2017	2017-2018	2018-2019	2019-2020
Race/Ethnicity of Medical School Applicants				
White	+	+	--	--
Black	+	+	+	+
Latino	+	+	+	--
Asian	+	+	+	+
AI	INSUF	INSUF	INSUF	INSUF

-- (less applicants compared to proportion of undergraduate student body); + (more applicants compared to proportion of undergraduate student body); INSUF (insufficient data available to compare proportions); AI (American Indian)

CONCLUSIONS

- All three universities consistently produced a greater proportion of Black undergraduate medical school applicants compared to the proportion of total Black undergraduate students.
- University of Pittsburgh and Temple University did not produce sufficient Latino undergraduate medical school applicants, with Pennsylvania State unable to do so in 2019-2020.
- All three universities did not produce sufficient American Indian undergraduate medical school applicants.
- There is an urgent need to increase Latino and American Indian medical school applications in order to mitigate the health disparities stemming from the underrepresentation of minority physicians.
- More comprehensive publicly available data is warranted to better measure the success of undergraduate minority pipelines.

REFERENCES

1. Schlueter EM. The bridge to diversity: the role of the National Medical Association and the African-American physician. *J Natl Med Assoc.* 2006;98(9):1515-1517.



Feasibility of a Food Insecurity Screening and Referral Pilot Program in the Emergency Department

Victor Cisneros MD MPH, Shashank Somasundaram, Tiffany Hwang, Joseph Bui, Hasan Khan, Zaid Parekh, Holly Nguyen, Armin Takallou, Alejandro Aviña, Hilary Tang, Wirachin Hoonpongsimanont MD MS, Shahram Lotfipour MD MPH, Bharath Chakravarthy MD MPH

University of California, Irvine - Department of Emergency Medicine



I. Background

- Food insecurity rate in 2017
 - U.S. Households: 11.8% (USDA)
 - Orange County, California: 12% (OC Food Access)
- Benefits of emergency department (ED) screening
 - Wide catchment area
 - Varying levels of food insecurity
 - Direct contact with disadvantaged, uninsured, and refugee populations
- Prior research
 - Popularity of 2-question screen

II. Objective

- Assess the feasibility of a 2-tiered ED-based screening program & quantify the severity of food insecurity at an academic, Level I Trauma Center
- Quantify longitudinal effectiveness of an ED-based screening and referral program

III. Methodology

Inclusion Criteria:
 ≥ 18 years old,
 English speaking,
 Spanish speaking

Exclusion Criteria:
 < 18 years old, psychiatric patient,
 incarcerated, non-English and
 non-Spanish speaking

- Convenience sample approached by research associates
- Patients are given 2-Item Screening Tool
- Food Insecure (FI) positive patients are consented and enrolled into Part II for FI Severity Index
- Contact information is collected and research liaison follows-up with patient in 3 and 6 weeks

2-Item Screening Tool

- "Within the past 12 months we worried whether our food would run out before we got money to buy more" and
- "Within the past 12 months the food we bought just didn't last and we didn't have money to get more."

FI Severity Index

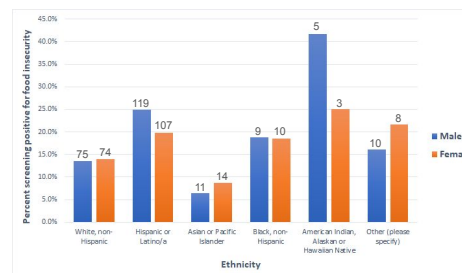
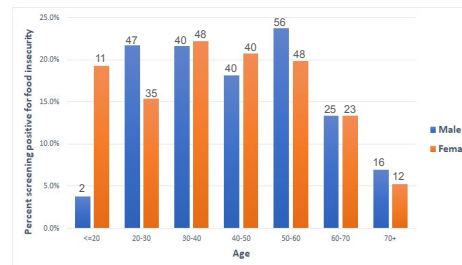
Food security status is assigned as follows:

- Raw score zero—High food security among adults
- Raw score 1-2—Marginal food security among adults
- Raw score 3-5—Low food security among adults
- Raw score 6-10—Very low food security among adults

IV. Results

- A total of 2665 patients were screened
 - 16.6% (442) screened positive for food insecurity and were approached to enroll for part II
 - Average age: 50.4
 - Preferred Language: 84.0% (2239) English; 11.5% (307) Spanish; 2.3% (60) Vietnamese; 2.2% (59) Other
- A total of 297 patients completed the part II survey
 - Average food insecurity score: 6.41
 - Standard Deviation: 2.77
 - 14.1% of food insecure patients have a 4-year degree or higher
 - 42.8% of food insecure patients have at least one child

Prevalence of FI in different population subgroups



V. Future Directions

- Identify barriers to utilizing food assistance program resources
- Identify routes of integrating into standard-of-care with minimal impact on ED throughput
- Establishment of an ED-based food pantry

VI. Conclusions

- A 2-tiered food insecurity screening is feasible in the ED setting
- Black or Hispanic/Latino patients had higher prevalences of food insecurity than White or Asian patients

VII. Acknowledgments

We would like to thank **Dr. Bharath Chakravarthy**, **Dr. Eric Handler**, and **Waste Not OC Coalition** for funding and allowing us to work on this project with them. We would also like to thank **Dr. Wirachin Hoonpongsimanont** and the **EMRAP (Emergency Medicine Research Associate Program)** students for their dedication and hard work in helping obtain enrollments.

VIII. References

Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, T., Rose-Jacobs, R., & Cook, J. T., ... Frank, Deborah A. (2010, July). Development and validity of a 2-item screen to identify families at risk for food insecurity. *The American Academy of Pediatrics*, 126(1).

NeighborhoodHELP-Borinquen Pilot Project: Addressing Clinical Patients' Health and Social Needs Using Household-Centered Care

Catherine Busatto, MSPA, PA-C; Joshua Dorbu, MPH
Florida International University Herbert Wertheim College of Medicine Green Family Foundation NeighborhoodHELP
cbusatto@fiu.edu

Purpose

Florida International University(FIU) Herbert Wertheim College of Medicine Green Family Foundation NeighborhoodHELP, Health Education Learning Program, provides household-centered care with interprofessional teams and addresses social determinants of health (SDOH) in Miami's underserved communities.FIU's NeighborhoodHELP partnered with Borinquen Medical Centers in the NeighborhoodHELP-Borinquen-Pilot Project with the intent to assess the impact of our household-centered care approach on the health outcomes of asthmatic and diabetic pediatric patients referred by Borinquen Medical Centers and residing within medically underserved communities in Northeast Miami-Dade County. Our specialized team of outreach liaisons and a physician assistant (PA) leverage SDOH education to guide participating households and connect them to community resources to help households with significant health and social risks thrive.



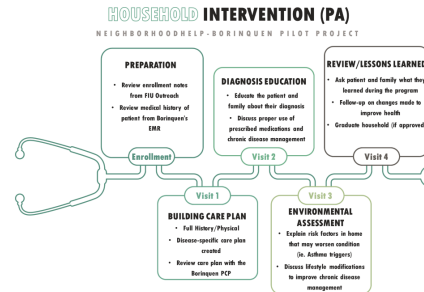
Collaboration with Borinquen through
NeighborhoodHELP-Borinquen Pilot Project

PROGRAM OBJECTIVES



Methodology

OUTREACH SOCIAL SERVICES FOR EVERY VISIT/ENCOUNTER



Results

Table 1: Individual Characteristics

	All Individuals		Target patients		Household members	
	N	%	N	%	N	%
Sex						
Male	23	37.7	16	50.0	22	75.9
Female	38	62.3	16	50.0	7	24.1
Age Group						
Infancy (0-4 years)	7	11.5	7	21.9	0	-
School age (5-13 years)	20	32.8	20	62.5	0	-
Working age (14-17 years)	4	6.6	4	12.5	0	-
Adults (18+ years)	30	49.2	1	3.1	29	100.0
Race						
Black / African American	37	60.7	19	59.4	18	62.1
White	24	39.3	13	40.6	11	37.9
Ethnicity						
Non-Hispanic / Latine	37	60.7	19	59.4	18	62.1
Hispanic / Latinx	24	39.3	13	40.6	11	37.9

Figure 1: Change in Proportion of Patients' HRP Scores Between First and Last Household Visit; Treated Target Patients only (N=32 at first visit; N=31 at last visit)

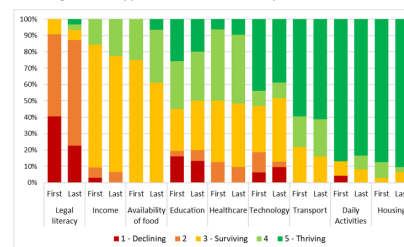
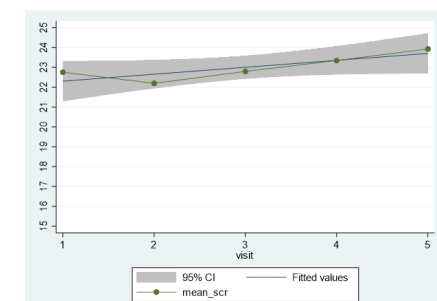


Table 2: Change in outcome variables related to no shows

Outcome variable	Obs (N)	Pre-int (median)	Post-int (median)	Decrease (post-pre)	Wilcoxon P-value
Number of no shows	10	1.5	3	-1.5	0.051
Number of kept appts	10	6	10	-4	0.037
No show rate	10	14.3%	19.4%	-5.1%	0.432
Number of well-child visits	10	1	1	0	0.375

Figure 2: Average ACT Score, Visits One Through Five



Conclusion

Our pilot partnership between FIU NeighborhoodHELP and the Borinquen Medical Center fills a gap in the burgeoning landscape of multi-sector partnerships. By providing an additional vantage point through home visitation, clinicians have access to patient's specific SDOH risk factors and barriers to address the complex health and social needs in diverse, medically underserved populations.

Continued investigation into this healthcare model would entail a larger scale intervention with more patients over a larger timespan to assess the value of this methodology to providers and policymakers. Further work would also involve additional trainings for brick-and-mortar healthcare systems to promote the integration of household-centered care into the mainstream healthcare sector.

Acknowledgements

Jimmy Pertil, MS; Myrtha Jean-Baptiste; Vanessa Rodriguez; Sophia Lacroix, BS; Heather Gomez-Bendana, MPH; Virama Oller, MBA; Luther Brewster, Ph. D; Pedro J. Greer Jr., MD; Onelia Lage, MD This project was supported by grant funding from the Aetna Foundation

FIU Green Family Foundation
NeighborhoodHELP®
FLORIDA INTERNATIONAL UNIVERSITY

A National Needs Assessment of Males with SLE: Assessing Medical, Psychosocial, Support & Coping Needs

Priscilla Toral, LCSW, Ambar Tavera, Natalia Irvine, MPH, Roberta Horton, LCSW, ACSW, Jillian Rose, PhD, MPH LCSW | HSS | Hospital for Special Surgery

PROGRAM OVERVIEW

Charla de Lupus (Lupus Chat)® is a unique national program developed in 1994 to address health disparities among people with lupus. Charla offers people with SLE and their families, peer health support and education in both English and Spanish. It is the only hospital-based national lupus peer support and education program culturally tailored to meet the needs of Latino and African American communities, who are affected by this illness at a higher rate.

BACKGROUND

As part of the hospital's involvement in the Community Service Plan (CSP), required by the New York State Department of Health (NYSDOH) Charla has pioneered several interventions for teens, young adults and parents who reside in the metro NYC area. After conducting a pilot survey to identify self-reported needs & concerns for men with SLE we identified several unmet needs for males with SLE that differ greatly from their female counterparts.

PURPOSE:

SLE mostly affects women; however, males represent 4-22% of patients. Research shows men tend to seek medical attention & supportive care < women & are underrepresented at self-management/support services for coping with SLE, despite having higher disease severity. Limited research exists regarding the specific medical, psychosocial, & support needs of men with SLE. A hospital-based national support & education program with a focus on reaching African American & Hispanic/Latino communities with SLE, conducted a national survey to identify self-reported needs & concerns for men with SLE.

METHODOLOGY:

- An 85-item survey with Likert scale & open-ended questions was disseminated nationally to males with SLE over 18.
- The survey was advertised via online forums at major hospitals serving SLE patients in NYC & at local & national SLE groups.
- The survey assessed 4 core areas: health status & quality of life, health behavior & lifestyle, access to care & interest in male specific programming.
- Surveys were completed via an online link.

RESULTS:

A total of 112 respondents participated in the survey, 61% identified as White, 21% Black/African-American, 15% Hispanic & 31% other. Mean age was 26 & mean year since diagnosis (DX) was 10. 49% of males were employed/self-employed & 46% unemployed/unable to work. 53% had an annual income of >50K, & 59% had some college or advanced degree. 94% reported having health insurance. Almost half (45%) reported living in an urban/city area, 34% suburban area & 20% rural area. Almost all (92%) were being treated by a Rheumatologist.

When respondents rated their overall health, 65% reported their health as fair/good, while 21% reported poor health. The majority (76%) reported worrying more about their future since DX. Most males (83%) reported that SLE limits their activities of daily living.

When asked about the single most important way SLE affected daily life, responses included fatigue & pain, with 48% reporting feeling pain daily. 53% of men reported SLE affects their sexual health: 52% reported less sexual desire & satisfaction, 45% limited motion, & 47% impotence.

When asked how often they followed medical advice, 59% said always, however reasons for not following medical advice included: worry about treatment side effects (44%) & that treatment would not help (43%).

RESULTS: (cont.)

Over half (58%) reported feeling depressed for several days/more than half the days in the last 2 weeks.

Regarding support & coping with SLE, 52% reported receiving no support. 84% had never taken a class to learn self-management & coping skills.

When asked if they would be interested in receiving support to help cope with SLE, 40% were interested/very interested, 44% reported being unsure & 15% were not interested.

When asked about the type of support platform they would prefer, 77% indicated online, 71% lupus app, 69% social group & 67% support & education group. When asked how likely they would be to participate in a male only support group, 50% reported likely/very likely, 27% unlikely/very unlikely & 23% unsure.

CONCLUSION:

Despite our small sample, this study provides important information about the physical & emotional health of males with SLE as well as their interest in psychosocial support. A next step would be to conduct focus groups with more ethnically diverse males with SLE, since lupus disproportionately affects more African American, Hispanic/Latinos and Asian-Americans.



Background

- A comprehensive community health assessment of the infant health outcomes in the city of Chicago showed that the highest prenatal adverse outcomes that lead to high infant mortality rates are mostly found in community areas in the South Side of Chicago such as Calumet Heights, Fuller Park, and Riverdale.
- The Maternal, Infant, Child, and Adolescent Health bureau at the Chicago Department of Public Health (CDPH) provides public health nursing support services through the Family Connects Chicago and Adverse Pregnancy Outcomes Surveillance system (APORS) programs. However, not all infants born in Chicago are offered public health nursing support services under these programs. This can lead to a gap in public health nursing support services to infants born in the south side of Chicago.
- CDPH has expanded public health nursing support services to eligible infants born at the University of Chicago Medicine (UChicagoMedicine) Family Birth Center to address Chicago's South Side community areas with high prenatal adverse outcomes, including high infant mortality rates. Yet, the initiative of the expansion of public health nursing services to the UChicagoMedicine Family Birth Center lacked an infants recruitment plan.

Purpose

- This quality improvement (QI) project's objective was to achieve a 60% of public health nursing support services (telehealth nurse visit) acceptance/completion rate of the eligible infants referred from the University of Chicago Family Birth Center.



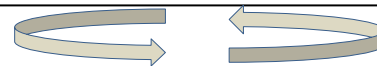
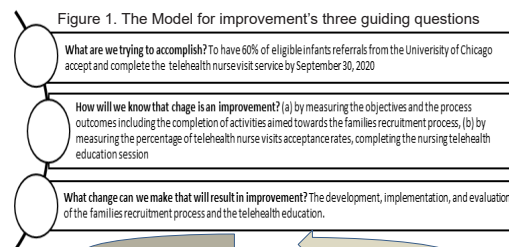
ACKNOWLEDGEMENTS & REFERECES

This QI project was part of my capstone project required for my DNP degree completion at Rush University. This project took place with the collaboration between the Chicago Department of Public Health's Maternal, Infant, Child, and Adolescent health bureau and the University of Chicago Family Birth Center. Thanks to H. Cygan, and J. Wilkerson, author received no funding for this poster presentation.

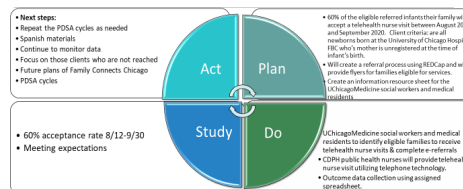
- City Tech Collaborate. (n.d.). Chicago health atlas: Chicago Health Atlas. <https://www.chicagohelthattlas.org/>
- Roussel, L., Polandch, S., & Beene, M. (2016). Using findings from the clinical needs. Assessment to develop, implement, and manage sustainable projects. In Harris, J., Roussel, L., Dearman, C., Thomas, P. (Eds 2nd). Project Planning and Management: A guide for nurses and interprofessional teams. (p. 143-165). Jones & Bartlett learning.

Methods

- Methods included recruitment of eligible infants, which consisted of the development and the application of a referral process, the creation of a secured electronic referral form, and marketing materials.
- Infant eligibility included unregistered infants who are born to mothers who received prenatal care outside the organization/healthcare system, had minimum prenatal care, and/or did not receive any prenatal care.
- The UChicagoMedicine social workers and medical residents identified eligible infants at the time of their birth, offered CDPH public nursing services to the infant's parents and/or guardians (family) and confirmed verbal consent for referral completion.
- The public health nurse support services consisted of a telehealth nurse visit via telephone technology soon after the new mother and her infant were discharged from the hospital.
- The telehealth nurse visits included, but were not limited to; maternal and infant health checks, connections to healthcare and community resources.
- The data collection included the number of referrals received compared to the telehealth nurse visit completed which determined the accepting rates.
- This QI project was guided by the Model for Improvement framework that included a Plan-Do-Study-Act (PDSA) cycle for program evaluation. See figure 1 for more details.



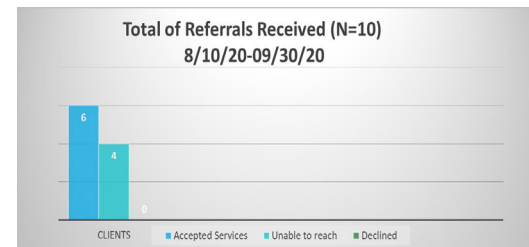
Plan-Do-Study-Act



Results

- There was a total of ten referrals (N=10) received from the UChicagoMedicine Family Birth Center from August 10, 2020 to September 30, 2020.
- 60% (N=6) of the infants' families accepted telehealth nurse visits. See figure 2 for details.
- The remaining 40% (N=4) of families who did not receive services were found to be unreachable.
- Additional data collection showed that the unreachable infants/families were reached via phone call by the public health nurses, but the infants' families did not return their calls. One family's phone was disconnected.

Figure 2. The number of referrals of infants whose families accepted/completed telehealth nurse visits and number of infants' families unable to reach.



Conclusion

- This QI project focused on the implementation of infants/families' recruitment process to facilitate the expansion of public health nursing support services to eligible infants born at the UChicagoMedicine Family Birth Center.
- The project's objectives were met, and data collection provided additional information and details of why families did not accept/complete nursing support services.
- Further data collection and research is needed to confirm why some families are unreachable, which can be compared to the COVID-19 era and post COVID-19 era.
- A second PDSA Cycle completion was recommended before protocols are finalized by modifying the families' recruitment process and adding the following components:
 - Explore other methods of communication, such as texting technology.
 - Translating marketing materials to Spanish.
 - Collect additional contact information from the infants' family.
- It is highly recommended to expand public health nursing support services to all infants born in underserved community areas by partnering with local birthing hospitals to address gaps in infants' healthcare, and to address social determinates of health.

CONTACT INFORMATION Guadalupe_Perez@rush.edu

Addressing Emergency Room Overutilization with an Innovative Household Centered Care Approach. The Florida International University Green Family Foundation NeighborhoodHELP Program in Partnership with Baptist Health Systems of South Florida.

Jessica B. Oliveira DMS, MSPA-C, Onelia G. Lage, M.D., David Brown, M.D., Andres Rodriguez M.D.,
Virama Oller MBA, Pedro J. Greer, Jr., M.D.

Herbert Wertheim College of Medicine, Florida International University

Email: jeolivei@fiu.edu

Purpose

Describe the components of an interprofessional integrated household centered care approach and how it reduced emergency department (ED) utilization rates for a targeted group of high ED utilizers in an underserved community.

Background

The FIU NeighborhoodHELP (NHELP) program is a holistic household centered care approach to caring for diverse underserved communities that are largely Hispanic and African American in Miami-Dade County by addressing the social determinants of health. **Its service delivery model utilizes interprofessional student teams (physician assistants, social workers, nurses, MDs, community outreach workers, and lawyers) to address the medical and social needs of uninsured high emergency room utilizers with chronic medical conditions.** Enrolled patients are cared for at mobile health centers in their own neighborhood and then followed up with household visits.

The evidence clearly shows that economic disadvantages along with low health literacy can contribute ED overutilization. Public health consequences are a result of poor coping strategies born from a lack of access to adequate social, medical and mental health care.

NeighborhoodHELP providers recognize the importance of collaborative efforts among community stakeholders in order to provide chronic disease management and mitigate the social determinants of health that often lead to increased emergency room visits.



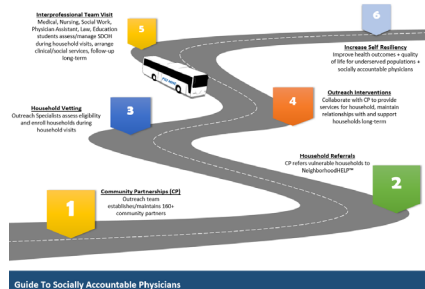
Methodology

Participants were referred by a local hospital and are predominantly Hispanic and African American uninsured high ED utilizers. The observational cohort of uninsured high ED utilizing patients (n=31) was tracked longitudinally (1,767 months of discrete observational data) for number of ED visits over time. The effect of enrollment and duration in the program on the rate of ED visits were assessed with an uncontrolled pre-post design. A multilevel Poisson regression model was employed to control for patient-level fixed effects.

- A team of outreach specialists enroll patients, identify needs, and connect them to needed services through an extended network of community partners and internal resources.
- Following enrollment, patients are scheduled on the mobile health center to establish primary care
- Enrolled patients receive a range of services in addition to primary care through collaborative efforts of the interprofessional student teams, such as:
 - Education about disease processes and management;
 - Culturally sensitive nutritional education
 - Care coordination of high-risk patients by the Physician Assistant;
 - Referrals for specialty care
 - Connection to legal and transportation services.



NeighborhoodHELP™ Road



Results

Average ED visits per month decreased from 0.36 pre-enrollment to 0.15 post-enrollment. In the multilevel model, each additional month post-enrollment was associated with a 2.5% ($p < 0.001$; 95% CI: 1.2% to 3.9%) decrease in expected ED visits per month.

The program has showed a reduction in emergency room utilization by 45% over a three-year period.

NHELP enrolled households also exceeded 75% of national clinical benchmarks, which look at a comprehensive set of standardized performance measures.

Conclusion

Results lead us to ascertain that incorporating culturally appropriate, interprofessional team-based care for Hispanic and African American uninsured/underserved communities, with a focus on addressing Social Determinants of Health can lead to decreased ED visits.



In addition, NeighborhoodHELP's holistic household centered care approach facilitates underserved communities to increase access to health care and improve outcomes. Though ED utilization was discussed in this poster, NeighborhoodHELP's purpose, extends to promoting health, resilience, wellbeing, and disease prevention in the communities they serve.

<http://medicine.fiu.edu/>



Adult-onset Still's Disease in Young, Hispanic woman - What to do to advocate for your patient's health

Joaquin A. Villegas Inurrigarro, MD/MPH, Michael A. Garcia, MD, and German N. Martinez-Gamba, MD
Department of Family and Community Medicine, University of Texas Health Science Center at Houston, Houston, TX



Purpose

The purpose of this case report is to instruct the viewer how to make the diagnosis of Adult-Onset Still's disease and how to properly treat it. Also, it will provide instructions on how to deal with insurance pre-authorizations and specialty pharmacies to advocate for patients' health.

Introduction

Adult-Onset Still's Disease is an inflammatory disorder with a pathognomonic triad of arthritis, rash and daily fevers. With an annual incidence of 0.16 per 100,000 people, Adult-Onset Still's disease is a rare disease. There is a bimodal age distribution with one peak at ages 15-25 and a second at ages 36-46. Males and females are equally affected.

There are three patterns of this disease: monophasic (resolving within 1 year), intermittent (recurrent symptoms with remission of 1-2 years between flare-ups) and chronic, with symptoms persisting for years.

The most predominant symptoms are arthritis and arthralgia. Although it can begin as transient and oligoarticular, the symptoms soon involve major joints like knees, wrists, ankles, elbows, shoulders and proximal interphalangeal joints. Manifestation can evolve over period of months and can even lead to destructive polyarthritis in some patients.

Symptoms also include myalgia, daily fevers and a classic evanescent salmon-pink rash that involves the trunk, extremities and occasionally can involve the palms, soles and face. The rash tends to appear and disappear with the fever.

Lesser symptoms include pharyngitis, hepatomegaly, lymphadenopathy, splenomegaly and pericarditis.

Lab markers include elevated ESR and CRP, elevated ferritin, and leukocytosis. Transaminitis can also be seen in those with liver components. Of note, ANA and rheumatoid factor are most commonly negative. Interleukin-6 and 18 are often elevated.

Diagnosis is usually a diagnosis of exclusion. The Yamaguchi criteria has been developed to help diagnose Adult-Onset Still's Disease (see Figure 1).

Case Report

Patient is a 24-year-old Hispanic woman with no significant medical history, presenting to the hospital with over 6 weeks of painful swollen knee joints, debilitating myalgias and rash on her face and trunk, and intermittent fevers. The patient came to Houston from the Rio Grande Valley in the deep South Texas area. Back home, patient was told her "lab workup" was negative and that a specialist was not available until 6 more months. On presentation, patient was febrile to 101.8, but otherwise all other vital signs stable. Physical exam, imaging and lab workup as follows:

General: A&Ox3, no acute distress	WBC: 12,840*	Na: 142	AST: 78
HEENT: Submandibular lymphadenopathy palpated, no mucosal lesions	Hgb: 13.4	K+: 4.6	ALT: 64
Cardio: Regular rate and rhythm, no abnormal heart sounds	MCV: 94	Cr: 0.9	T. bili: 1.1
Resp: Clear to auscultation bilaterally, regular rate	Platelet: 370,000	GFR: >90	ALP: 62
Abdominal: Soft, nontender, nondistended. +Hepatomegaly palpated on exam	ESR: 78	UDS: negative	IL-6: 19.8
MSK: Tenderness to palpation over bilateral knees, swollen with no overlying erythema.	CRP: 6.8	TSH: 2.6	IL-18: 448
Extremities: 2+ pulses palpated, no edema	ANA: negative	RPR: negative	
Skin: Maculopapular salmon-pink rash over trunk and face, no excoriation marks	RF: negative	*granulocyte 82%	
	RUQ U/S: mild hepatomegaly, no hepatic lesions		
	CXR: no acute abnormality		
	CT Abdomen and Pelvis: no acute abnormality		

Rheumatology was consulted and diagnosis of moderate to severe Adult-Onset Still's disease was made. However, patient was resistant to typical therapy of NSAIDs, prednisone, anakinra (IL-1 receptor antagonist) and tocilizumab (anti-interleukin-6 receptor monoclonal antibody). Patient was then started on Canakinumab (anti-IL-1 beta monoclonal antibody) which resolved symptoms. However, patient's hospital stay was prolonged while the medical team had to obtain authorization from her insurance company to dispense the medication in the outpatient setting.

Figure 1. Yamaguchi Criteria for Adult Onset Still Disease

Major Criteria	Minor Criteria
<ul style="list-style-type: none"> •Fever >102.2 F, lasting >1 week •Arthralgia/arthritis lasting >2 weeks •Nonpruritic, salmon-pink rash during febrile episodes •Leukocytosis >10,000 with >80% granulocytes 	<ul style="list-style-type: none"> •Sore throat •Lymphadenopathy •Hepatomegaly or splenomegaly •Abnormal liver function tests •Negative ANA and RF

Yamaguchi criteria requires presence of five features, with at least two being major diagnostic criteria. All other possible causes, such as malignancy, infection, autoimmune disorder or toxins must be ruled out.

Managing Pre-authorization

Specialty drugs are those considered complex medications usually prescribed for complex, chronic and rare diseases, such as cancer, MS and HIV/AIDS. They tend to have high costs due to specialized delivery, preparation, storage and distributions.

Thus, insurance companies often try to avoid these medications, here are some learning points that arose from this patient's situation.

1. Be up-to-date with clinical guidelines

Be prepared to defend your choice of drug and point out Evidence-Based medicine to justify your decision

2. Clearly document failed therapies and duration

Be sure to document all attempted therapies and point out why it was necessary to escalate to the drug in question

3. Choose to speak with Physician Decision Maker

Insurance will likely have a physician on-staff that will help provide context to the drug in question. Ask to speak with them to

4. Keep Trying!

Just because you have been denied once, it does not mean you can't try again. If the patient is benefiting from the treatment and there is no alternative, keep advocating for your patient's health.

Conclusion

This case report highlighted how a typical patient with Adult-Onset Still's Disease can present. Adult-Onset Still's Disease is a rare rheumatological disorder that is a diagnosis of exclusion and can sometimes be refractory to common treatment.

Dealing with insurance companies is a reality of life for providers and it is vital to become adept in it to advocate for your patients and their health.

Works Cited

Bywaters, EG. "Still's Disease in the adult." *Ann Rheum Dis.* 1971; 30(2):121
Efthimiou P, et al. "Diagnosis and management of adult onset Still's disease." *Ann Rheum Dis.* 2006;65(5) 564.

An Obesity Prevention Intervention for Latino Families

Estrada L MPH CHES¹, Madrigal I RD¹, Chapman M¹, Berdugo J¹, Homs C², Gómez SF MPH PhD^{2,3}
¹Gasol Foundation, Los Angeles, CA, USA; ²Gasol Foundation, Sant Boi de Llobregat, Barcelona, Spain; ³GREPS, Health Education Research Group, Nursing and Physiotherapy Department, University of Lleida, Lleida, Spain

PURPOSE

To demonstrate improvements in the four key determinants of childhood obesity: eating habits, physical activity, hours and quality of sleep, emotional well-being and weight status.

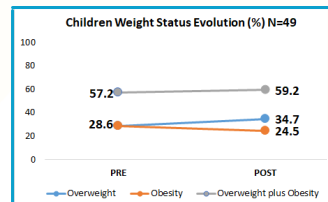
METHODOLOGY

Program Structure

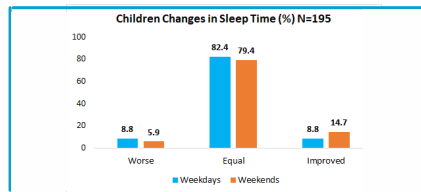
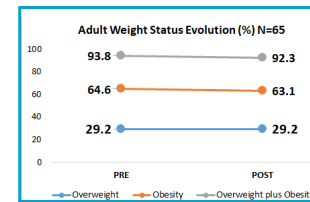
The program is offered on Saturday mornings to children ages 6-12 and their families. It is implemented during the school year in the neighborhood of Watts, South Los Angeles, and Boyle Heights in Los Angeles County. The project structure consists of 8 sessions: 1 opening & 1 closing session and 6 sessions with children and adults. The program workshops and materials are delivered in Spanish.

Evaluation Protocol

The program is evaluated by PRE & POST assessments and BMI Measurements. The PRE-POST questionnaires measure skills, attitude, and knowledge of the four main topics. In addition, three anthropometric variables are collected from both children and adults.



VIDA!
Health & Wellness



RESULTS

Between 2017 and 2019, 187 adults and 294 children participated in the program. Adults increased physical activity levels and sleep hours and half (49.2%) improved their weight status. Nearly all children (92%) either maintained or improved their weight status and the overall percentage of children with obesity and abdominal obesity was lowered. Also, the majority of children (54.5%) improved their diet quality and over a third (35%) showed improvement in emotional well-being. Furthermore, most of the children (62%) decreased screen time during the weekends.

CONCLUSION

The program results highlight the relevance of culturally sensitive holistic health promotion interventions in vulnerable populations. In light of the COVID-19 pandemic the Vida! Health & Wellness program has been adapted into a virtual model. The data for the virtual adaptation of the program will be available in summer 2021.

[GASOLFOUNDATION.ORG](https://gasolfoundation.org)

Arroz Moro vs. Brown Rice: Evaluating the Integration of Cultural Competency, Culinary, and Nutritional Medical Interventions

Vanessa Ortiz, MS; Wilfrido J. Castillo; Seichi Villalona, MA; Dr. Sonia Garcia Laumbach, MD

Purpose

In the United States, chronic disease affects racial and ethnic minorities at a disproportionate rate, in particular Hispanics and Latinos. Economic adversity and poor social conditions often contribute to disease burden. By empowering patients to reduce unhealthy behaviors, as many as 40 million cases of chronic diseases per year can be prevented.

Nutritional interventions have been incorporated within medical education curricula and as community programs as a means of empowering future medical professionals and patients to reduce chronic disease. One important aspect of nutrition is the cultural variability in diet, however it is unclear if nutritional interventions are appropriately addressing this factor.

The purpose of the literature review was to identify if cultural tailoring was incorporated in the design and implementation of nutritional interventions.

Acknowledgements

We would like to thank Dr. Roberta Baer and Laura Kihlstrom for their feedback on the literature search methods in order to ensure inclusion of various academic disciplines.

References

- Jaroudi SS, Sessions WS, 2nd, Wang VS, et al. Impact of culinary medicine elective on medical students' culinary knowledge and skills. *Proc (Bayl Univ Med Cent)*. 2018;31(4):439-442.
- Perez-Escamilla, R., Damio, G., Chhabra, J., Fernandez, M. L., Segura-Perez, S., Vega-Lopez, S., D'Agostino, D. (2015). Impact of a community health workers-led structured program on blood glucose control among latinos with type 2 diabetes: the DIALBEST trial. *Diabetes Care*, 38(2), 197-205. doi:10.2337/dc14-0327

Methods and Materials

Frameworks proposed by Arksey and O'Malley (2005) & Levac, Colquhoun, and O'Brien (2010) were used in designing the scoping review.

- Identifying research question
- Identifying relevant studies
- Study selection
- Data extraction
- Analysis and synthesis
- Consultation

Guiding research questions

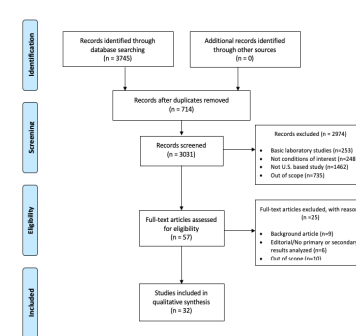
- what proportion of studies have specifically discussed the use or tailoring of culturally relevant concepts in their design, implementation, and evaluation?
- which chronic health conditions have been targeted by these same types of interventions?

- what ethnic and/or racial groups have these interventions been implemented among or designed around?
- geographically, where have these interventions been implemented?

PubMed, Scopus, Web of Science, and CINAHL (Cumulative Index to Nursing and Allied Health Literature), and the Cochrane Database of Systematic Reviews.

The Boolean search terms combinations: "culinary medicine"; "cultural competency" and "nutrition" and "medical education"; "culture" and "nutrition" and "medical education"; "patient nutrition education" and "culture"; "dietary" and "education" and "medical student"

Figure 1: Literature search results and screening procedures



Results

Table 1: Medical Education Studies

Study	Region	Participants (N)	Chronic Conditions Addressed	Cultural Tailoring
Brinkman et al (2016)	Southwest	125	Obesity/Weight management	No
Conroy et al (2006)	Northwest	137	General nutrition	No
Endersby & George (2017)	Northwest	No indication	General nutrition	No
Fang et al (2016)	Northwest	117	Obesity/Weight management	No
Geller et al (2008)	Midwest/South	788	Obesity/Weight management	No
Jacob et al (2016)	Northwest	80	Obesity/Weight management	No
Jaroudi et al (2018)	Southwest	35	Chronic kidney disease, Hypertension, Diabetes mellitus, Hyperlipidemia	Yes
Koch-Schaper et al (2017)	Midwest	29	Prehypertension/Diabetes mellitus	No
Montezano et al (2015)	Southwest	127	Obesity/Weight management	No
Peng et al (2016)	West	40	Hypertension, Diabetes mellitus	No
Schiff et al (2012)	Northwest	30	General nutrition	No
Wolkstein et al (2014)	Northwest	64	Obesity/Weight management	No

Table 2: Clinical & Community Based Studies

Study	Region	Participants (N)	Chronic Conditions Addressed	Cultural Tailoring	Target Population
Amato et al (2017)	West	218	General nutrition	Yes	Hispanic/Latino
Brown et al (2012)	Southwest	216	Diabetes mellitus	Yes	Hispanic/Latino
Cutler et al (2013)	Southwest	26	Diabetes mellitus	No	Hispanic/Latino
Casper et al (2015)	Northwest	21	Obesity/Weight management	Yes	African American/Black
Gabriel et al (2015)	Unspecified	26	Diabetes mellitus	Yes	African American/Black
Giles et al (2016)	Midwest	428	General nutrition	Yes	Hispanic/Latino
Hopewell et al (2016)	West	30	Cardiovascular disease	No	African Pacific Islander
Kendall-Tackett et al (2016)	Midwest	154	Diabetes mellitus	No	Native American
Montezano et al (2018)	West	24	Diabetes mellitus	Yes	Hispanic/Latino
Moran et al (2016)	Southwest	24	Diabetes mellitus	Yes	African American/Black
Montezano et al (2015)	Southwest	27	Diabetes mellitus	No	African American/Black
Perez-Escamilla et al (2015)	Northwest	211	Diabetes mellitus	Yes	Hispanic/Latino
Rodriguez et al (2015)	Southwest	82	Hypertension	No	African American/Black
Sullivan et al (2011)	West	28	Diabetes mellitus	Yes	Hispanic/Latino
Tsai et al (2017)	Southwest	30	Diabetes mellitus	Yes	Hispanic/Latino
Song et al (2015)	Northwest	79	Diabetes mellitus	Yes	African Pacific Islander
Tsai et al (2015)	Northwest	17	Hypertension	No	African Pacific Islander
Wolkstein et al (2014)	Northwest	76	Obesity/Weight management, Diabetes mellitus	No	Hispanic/Latino
Wolkstein et al (2012)	West	26	Diabetes mellitus	No	Hispanic/Latino
Yeh et al (2015)	Northwest	60	Prehypertension	Yes	African Pacific Islander

- Within the medical intervention studies analyzed, only 8.3% were culturally tailored for their target population
 - 41.7% focused on obesity/weight management, while 33.3% discussed unspecified conditions and explored a general approach to medical intervention
- In contrast, analysis of clinical and community studies revealed that 75% of the articles demonstrated cultural competency when targeting a particular population
 - Target populations included Latinos/Hispanics (50%) and African Americans/Black (25%)

Conclusion

- At the medical education level, interventions were tailored for obesity but incorporated no cultural tailoring
- At the community level, the programs were tailored for specifically Latinos and African Americans with diabetes or cardiovascular disease
- Need for further research into how culinary medicine is preparing physicians to effectively address and impact dietary differences among diverse patient populations
- Future studies within the medical education level may benefit their target population with more culturally relevant topics
- Future studies within community-based programs may benefit additional communities in need by addressing a wider breadth of chronic conditions and racial/ethnic groups



Assessing Opportunities and Challenges of E-Consult at a FQHC

Tiffany Luu of University of California, Irvine

Nicholas Tito, MBA of WCUCOM

Michael Hochman, MD, MPH of University of Southern California

Efrain Talamantes, MD of AltaMed in Los Angeles, CA

PURPOSE

- Timely access to specialty care in low-income safety net health institutions is a well-known problem nationwide. Traditional specialty referral, or paper referral, is plagued with logistical problems, and after seeing a PCP, safety net patients can often wait months before being called to schedule the follow-up appointment while no show rates at specialty offices can average up to 40%. E-consult allows PCPs to manage their own patients specialty care by allowing PCPs and specialists to communicate via the EHR, without the need for a specialist face-to-face visit with the patient.
- AltaMed Corporation instituted an E-consult system in its network of clinics in late 2018, though use of the E-consult system is not on par with the national average. E-consult has been demonstrated to decrease wait times and increase safety net patients' access to care, therefore improving AltaMed PCP's use of E-consult is a logical next step to increasing patient access to quality care.
- Identify challenges of implementing E-consult
- Assess PCPs attitudes towards E-consult usage

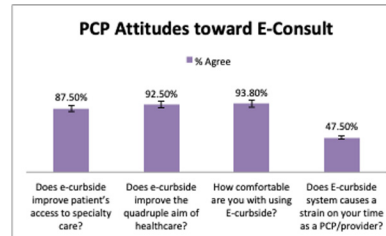
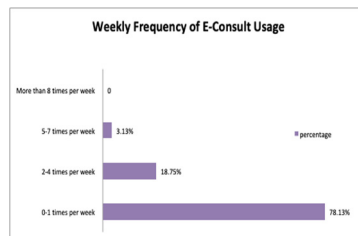
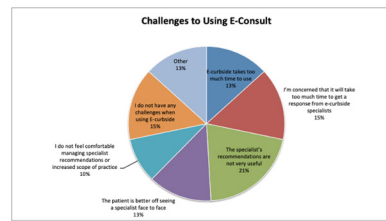
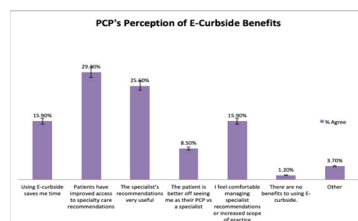


METHODOLOGY

- Developed a survey to explore the potential benefits, barriers, and PCP sentiment with use of the E-consult (referred to as e-curbside) system at AltaMed
- Survey contained demographics and Likert Scale questions regarding PCPs perception of E-consult usage
- PCPs were defined to be practitioners within the AltaMed network with the following credentials: MD, DO, NP, and PA
- Out of the 193 survey sent out we received 40 back

RESULTS

- PCP's in AltaMed clinics overwhelmingly agree that E-consult use:
 - Increases patient access to specialty care (87.5% Agree).
 - Improves the quadruple aim of quality enhancement (92.5% Agree).
 - Are comfortable using E-consult (93.8% Agree)
- PCP's at AltaMed perception of E-Consult benefits are as follows:
 - Patients have improved access to specialty care recommendation (29.3% Agree)
 - The specialist's recommendation is very helpful (25.6% Agree)
- Challenges for PCP to use E-consult at AltaMed are as follows:
 - The specialist recommendations are not very useful (21% Agree)
 - Concerned that it will take too much time to receive response (15% Agree)
 - Takes too much time to use (13% Agree)
 - patient is better off seeing specialist face-to-face (13% Agree)



CONCLUSION

- Overall PCP's in AltaMed clinics agree that E-consult improves access and the quality of care given to safety net patients. Most are comfortable using the E-consult system, though the low self-reported usage overall of E-consult indicates need for further evaluation of the barriers discovered in this study.
- PCP's are split on opinion over whether E-consult is a burden to their time. However most challenges noted using E-consult are logistical and could be improved upon to make E-consult an effective use of PCP time.
- Assessing whether E-consult is cost-effective for both the patient and AltaMed
- Analyze outcome efficacy through E-consult usage versus traditional consultation
- Difference in E-curbside usage for various specialties

ACKNOWLEDGEMENTS

- NMF Primary Care Leadership Program
- AltaMed in Los Angeles, CA
- Michael Hochman, MD, MPH of USC
- Efrain Talamantes, MD of AltaMed in Los Angeles, CA
- Funders listed in Scholars' program acceptance letters (i.e. in text of first paragraph)

References
[APA format of any references used or quoted in poster]

INTRODUCTION

- The COVID-19 pandemic continues to disproportionately impact the Latinx community, nonetheless, attention and resources have been less than equitably distributed
- A combination of structural inequities paired with a lack of transparency by government and media outlets continues to propagate the harm the Latinx community faces because of the pandemic
- Illinois Unidos (IU) purpose is to address and redress the consequences of slow, or even non-responses to increase COVID-19 testing, contact tracing, and educational outreach efforts, as well as necessary services for Latinx communities
- IU members include healthcare providers, researchers, community leaders, labor organizers, grassroots workers, and elected and appointed government officials committed to sharing COVID-19 data and information and developing effective prevention and mitigation strategies

PURPOSE

- To describe the early development of the Illinois Unidos (IU) coalition and provide selected descriptive findings of coalition members' perceived effectiveness of its work

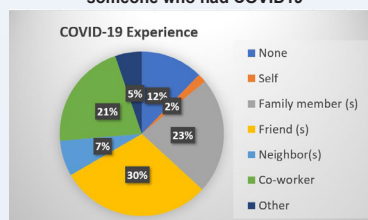
METHODS

- An online effectiveness survey was conducted in July 2020 (3 months after the group's formation) using RedCAP
- The survey included questions about member demographics, organizational affiliation, and meeting attendance and an assessment of members' perception of coalition leadership style, communication, facilitation of capacity-building among members, coalition operational procedures and structures, as well as conflict management and resolution
- Member satisfaction was gauged with a Likert scale

RESULTS

Table 1: Illinois Unidos Partnership Demographic Data		
Demographic Characteristics	N (33)	%
Age (years)		
Under 25	0	0.0
25-45	12	36.4
46-60	15	45.5
61+	6	18.1
Sex at Birth		
Female	24	72.7
Male	8	24.2
Non-binary	0	0.0
Prefer not to say	1	3.0
Education		
High school	0	0.0
Some college or 2-year Associate Degree	1	3.0
Trade or vocational school degree	0	0.0
College Degree: BA or BS (4 yrs of college)	11	33.3
Masters degree	10	30.3
Doctoral degree	10	30.3
Other	1	3.0
Ethnicity		
No	1	3.0
Puerto Rican, Boricua, New York Rican	10	30.3
Cuban or Cuban American	1	3.0
Mexican, Mexican American, or Chicano	14	42.4
Central America	2	6.1
South America	4	12.1
Other Spanish, Hispanic, or Latino	1	3.0

Fig 1: Firsthand experience with someone who had COVID19



RESULTS Cont.

Fig 2: Sectors represented by members of Illinois Unidos

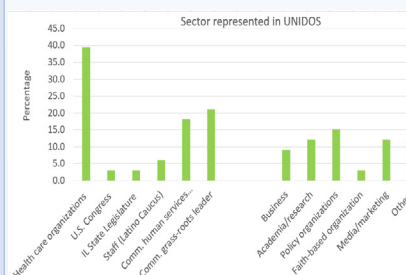
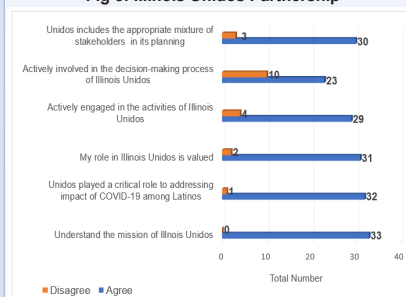


Fig 3: Illinois Unidos Partnership



RESULTS Cont.

Fig 4: Membership satisfaction in relation to commitment



CONCLUSIONS

- The COVID-19 pandemic highlighted the importance of advocacy in healthcare
- Participating in IU allowed members to both seek and offer resources for themselves, their communities, and patients
- The coalition continues to grow while meeting members expectations and needs

FUTURE DIRECTIONS

- Membership feedback has been incorporated to create different workgroups that allow more opportunities for engagement
- There are plans for a follow up survey, given the recent growth in membership

ACKNOWLEDGEMENTS

Thank you to all the volunteers of Illinois Unidos, especially founding members and co-chairs Xavier Noguera and Cesar Rolon for their tireless commitment to social justice and health equity.

Characteristics of an early cohort of COVID positive patients at an Urban Emergency Department

Aaron Case, MD, Shaveta Khosla, PhD, Alan Li, Johnny Nguyen, Daniel Suarez, Marina Del Rios, MD
University of Illinois College of Medicine - Chicago

Introduction

- COVID-19 has affected the lives of millions globally, with underrepresented minority groups disproportionately suffering from this deadly virus
- In Illinois, Hispanics represent the highest overall incidence of COVID, while in Chicago, age adjusted mortality rate in Hispanics is higher than in any other ethnicity
- While research has been growing on COVID-19 patients since the pandemic started, the patients diagnosed early in the pandemic were left out of most clinical trials and cohort studies.
- We examined the characteristics of an early cohort of COVID-19 positive patients at an urban academic teaching hospital Emergency Department (ED).

Methods

- Retrospective chart review was conducted to study patients who tested positive for COVID-19 in the ED in April 2020
- This hospital serves predominantly minority populations (with at least 70% patients Black or Latino).
- We conducted univariate analysis, followed by bivariate analysis (chi square and fisher's exact test) to assess differences in characteristics.

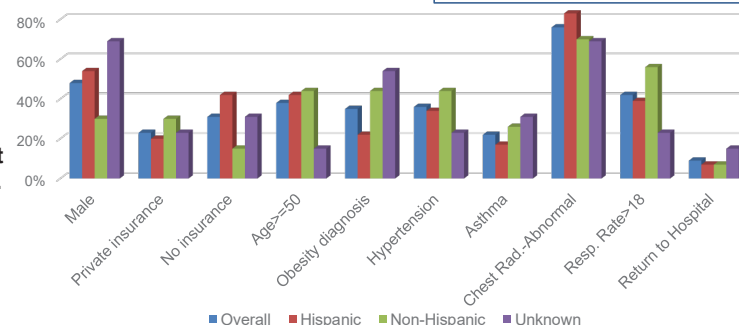
Results

- In this early cohort of 81 COVID-19 patients, >50% were Hispanic and 32% were African American; 52% were females. Mean age was 44 (± 15).
- Hispanics (46%) and Unknown (31%) ethnicity group were less likely to have female cases when compared to non-Hispanics (70%) ($p=0.04$).
- Hispanics were less likely to have private insurance and more likely to be uninsured ($p=0.01$) but had lower comorbidities. (Figure 1)
- Among those that had a chest radiograph, 83% of Hispanics had abnormal findings vs. 71% in non-Hispanics, $p=0.36$; however, respiratory rate was >18 in 39% of Hispanics vs. 56% of non-Hispanics ($p=0.14$).
- Return to Hospital (within 30 days) was more common in Unknown ethnicity group; however, was not statistically significant.

Conclusions

- Data demonstrates significant inequalities towards Hispanics in the ED with respect to insurance and severity of disease, with lower comorbidity yet more severe illness
- Given the lack of insurance, male predominance, and lower comorbidities, it is imperative to assess further disease characteristics and outcomes in this population
- There is a need to address health literacy and policy efforts to ensure increased access to healthcare in this population.
- Future studies should assess differences between the early and the later cohort of COVID-19 patients to explore how the demographics changed over time.

Figure 1: Distribution of demographic and clinical characteristics in the cohort of COVID-19 positive cases.



Contact: Aaron Case (case1@uic.edu), Marina Del Rios (mdelrios@uic.edu)





Charles R. Drew University and AltaMed Health Services: A Unique University and FQHC Collaboration to Implement a Health Careers Opportunity Program (HCOP) to Train Minority Students for Future Careers as Healthcare Providers

AltaMed
QUALITY CARE WITHOUT EXCEPTION™

Hector Balcazar PhD, Marco Angulo MD, Roger Liu PhD, Khadijah Ojo EdD, Lilly Ojo MS, Anabel Arroyo, Vanessa Peña-Garcia BA, Erick Leyva BA
Charles R. Drew University of Medicine and Science, AltaMed Institute for Health Equity
Email: AltaMedSummerProgram@AltaMed.org

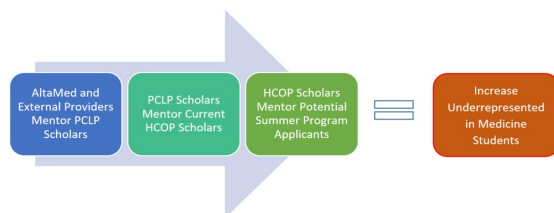
Purpose

Charles R. Drew University of Medicine and Science (CDU) was one of twenty-one institutions awarded a Health Careers Opportunity Program (HCOP) grant in 2018 through 2023. The five year grant, funded by Health Resources and Services Administration (HRSA), was provided to help increase the number of minority students in the health career field. To help facilitate this goal, CDU partnered with AltaMed Health Services, a federally qualified health center (FQHC), that seeks to provide health services to medically underserved communities in East Los Angeles. As such, the CDU-AltaMed HCOP-Academy was established due to overarching organizational missions and goals in order to create a six-week summer pre-health enrichment program aimed at increasing the number of health professionals committed to working in medically underserved communities.

Methodology

- Over a span of two years, AltaMed and CDU have hosted 48 aspiring health professionals.
- To be admitted into the CDU-AltaMed HCOP ACE program, applicants have to be invested in serving the medically underserved communities in Southern California, be the first in their immediate family to attend college, and be interested in attending a health professional program.
- The 48 participants chosen are 91% Latino/a, 3% Black/African American, and 6% Asian Pacific Islander.
- The six-week summer program has four main pillars: tiered mentorship, health equity, clinical experience, and a scholarly activity component. The goal of the comprehensive curriculum is to provide early health career exposure through the tools and knowledge necessary to serve medically underserved communities.

Tiered-Mentorship Model



Demographics

23 Undergraduate / Post-Bacc Scholars
3% African American/Black
6% Asian/Pacific Islander
91% Latino/a
72% Female
28% Male
97% First gen students

Results

Participants were exposed to various workshops focused on health equity and the culture of medicine. These workshop series served to enhance the knowledge and tools available to the participants. During the six-week program, a pre-health advisor creates personalized academic portfolios for each participant. The academic portfolios are created through one-on-one sessions between the participant and advisor. The advisor reviews the academic history of the participant and creates a roadmap to the participant's goals. This personalized approach ensures each participant receives individualized advising throughout the program and after the program's completion. The advisor provides additional one-on-one sessions after the program to ensure the participant is on track to apply, gain acceptance and matriculate into a health graduate program of their choosing. The matriculation rate for program alumni is currently at 100%, with five participants enrolled in US medical schools, and two are currently in the application process. Ninety-seven percent of all participants were first-generation students. Post survey results revealed 93% of participants are confident in the next steps of their educational and professional journey. One-hundred percent of program participants are dedicated to serve medically underserved communities.

Conclusion

The CDU-AltaMed HCOP ACE Program was designed to prepare participants from disadvantaged backgrounds to health professional careers through a robust curriculum. The unique partnership between an academic institution and an FQHC provides participants with the exposure and essential tools to become a competitive applicant for health professional programs. The desired outcome of this program is to increase the number of participants who matriculate into health graduate and professional programs across the United States. To facilitate this outcome, program participants are supported with longitudinal follow-up via the pre-health advisor with three individualized advising sessions one year following program completion.

Direct Primary Care (DPC) preference survey among individuals who do not have health care insurance

Omar Matuk-Villazon, M.D., M.B.A., Adepoju Omolola, PhD, *University of Houston College of Medicine, Houston, Texas*

Introduction

DPC is a new method of delivering primary healthcare services in which patients pay a modest monthly fee for a broadly defined spectrum of primary care services, not including medical subspecialties or hospital services.

We propose to identify and quantify key data elements of patient preference for such a model, as well as the financial viability of the program.

Aim

To conduct a market analysis on the consumer preferences of uninsured and underinsured individuals regarding a direct primary care model and evaluate their attitudes towards “up-front” pricing in healthcare versus the traditional insurance model.

Methods

The Direct Primary Care (DPC) preference survey was sent to 9 different organizations via a clickable link between 10/1/2020 and 11/1/2020. There were two language versions of the survey; the participants could choose to respond in English or Spanish.

Details of the survey are included in Appendix 1. The survey received IRB approval from the University of Houston, Committee for the Protection of Human Subjects.

Preliminary Results

Appendix 1 provides a description of the overall sample, stratified by insurance status. Although 1323 individuals responded, only 392 had complete responses, and are described in table 1.

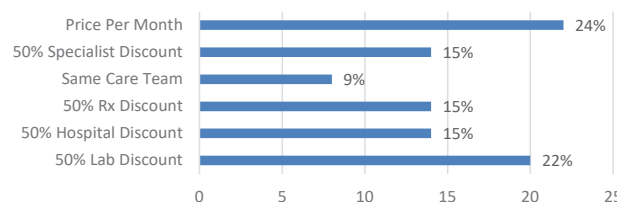
About half of respondents were females and over 60% self-identified as Hispanic. 38% reported having a college degree or an advanced degree, 42% were engaged in full-time employment and 61% reported an annual income of \$40,000 or less. The average age was 45 years.

64% of respondents reported seeing a physician in the past year but only 25% receive care in a Community Health Center. Self-reported receipt of government benefits ranged from 8% (SNAP), 7% (Harris Health Gold Card), to 12% (multiple benefits).

Health insurance status is evenly distributed among the sample (n=392). Approximately 45% of the sample has health insurance and 55% does not have health insurance.

Regarding price, 73% found \$60 to be attractive (6-10) while 59% found \$80 attractive.

Most Important Direct Primary Care Plan Feature



Discussion

The most important DPC model features listed are comparable between the insured and uninsured.

However, it appears that a greater proportion of those who listed price per month as the most important feature do not have health insurance.

Health insurance status may drive an individual's appeal towards the cost-effective features of direct primary care plans.

Texas being a non-Medicaid expansion states faces with the reality of having 20% + uninsured population.

A low-cost-consumer based primary care insurance seems to be a viable option for patients in order to have access to healthcare.

Future Plans/ Timeline

To expand the survey to a larger national population to validate the results.

To gather data from the pilot clinic currently running.

Questions

omatuk-villazon@uh.edu



@omatuk

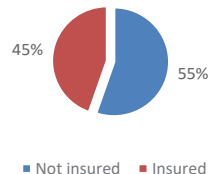
Direct Primary Care (DPC) preference survey among individuals who do not have health care insurance

Omar Matuk-Villazon, M.D., M.B.A., Adepoju Omolola, PhD, *University of Houston College of Medicine, Houston, Texas*

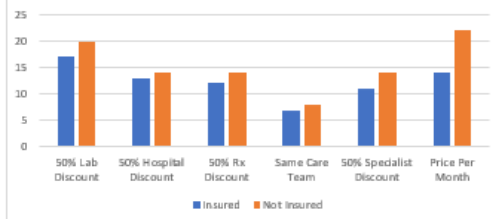
Preliminary Results – Appendix 1

	Total (N=392)	Not Insured (N=297)	Insured (N=95)
Language, n (%)			
English	40 (43%)	16 (34%)	23 (61%)
Spanish	52 (57%)	31 (66%)	15 (39%)
Gender, n (%)			
Female	43 (47%)	24 (51%)	16 (42%)
Male	47 (51%)	23 (49%)	21 (55%)
Not Specify	2 (2%)	0 (0%)	1 (3%)
Education, n (%)			
Less than High School	12 (13%)	11 (23%)	1 (3%)
Some High School	6 (7%)	3 (6%)	3 (8%)
Completed High School/GED	19 (21%)	12 (26%)	7 (18%)
Technical/Trade School Degree	6 (7%)	5 (11%)	0 (0%)
Some College	12 (13%)	7 (15%)	4 (11%)
College/Advanced Degree	35 (38%)	9 (19%)	23 (61%)
Employment, n (%)			
Employed Full-time	39 (42%)	18 (38%)	19 (50%)
Employed part-time	15 (16%)	9 (19%)	6 (16%)
Full time homemaker	8 (9%)	4 (9%)	3 (8%)
Not employed	17 (18%)	11 (23%)	5 (13%)
Unable/Disabled	6 (7%)	3 (6%)	2 (5%)
Retired	4 (4%)	2 (4%)	2 (5%)
Missing	3	0	1
Ethnicity, n (%)			
African American	6 (7%)	4 (9%)	2 (5%)
Asian	7 (8%)	1 (2%)	6 (16%)
Hispanic	56 (63%)	34 (72%)	20 (53%)
White/Anglo	15 (16%)	6 (13%)	8 (21%)
Not Provided	1 (1%)	0 (0%)	1 (3%)
Other	1 (1%)	1 (2%)	0 (0%)
Multi-Ethnic	2 (2%)	1 (2%)	1 (3%)
Missing	2	0	0
Race, n (%)			
Non	29 (32%)	12 (26%)	16 (42%)
Yes	61 (66%)	35 (74%)	22 (58%)
Missing	2	0	0
Household Income, n (%)			
Less than \$10,000	14 (15%)	10 (21%)	3 (8%)
\$10,001 to \$25,000	21 (23%)	13 (28%)	7 (18%)
\$25,001 to \$40,000	21 (23%)	12 (26%)	9 (24%)
\$40,001 to \$50,000	5 (5%)	4 (9%)	1 (3%)
\$50,001 to \$75,000	15 (16%)	6 (13%)	9 (24%)
More than \$75,001	8 (9%)	1 (2%)	7 (18%)
Missing	8	1	2
Last Saw Doctor, n (%)			
1 year ago	59 (64%)	30 (64%)	27 (71%)
1-2 years ago	15 (16%)	9 (19%)	6 (16%)
2-5 years ago	7 (8%)	3 (6%)	4 (11%)
More than 5 years ago	3 (3%)	2 (4%)	1 (3%)

Health Insurance Status



Most Important Direct Primary Care Plan Feature by Insurance Status



	Total (N=392)	Not Insured (N=297)	Insured (N=95)
Never	2 (2%)	1 (2%)	0 (0%)
Missing	6	2	0
Usual Clinic Visited, n (%)			
Comm. Health Center	25 (27%)	17 (36%)	7 (18%)
Doctor Office	32 (35%)	10 (21%)	21 (55%)
Hospital Emergency Room	5 (5%)	5 (11%)	0 (0%)
Urgent Care Clinic	7 (8%)	3 (6%)	4 (11%)
Grocery/Drug Store Clinic	4 (4%)	2 (4%)	2 (5%)
Hospital OP Department	5 (5%)	4 (9%)	1 (3%)
Do not know	1 (1%)	1 (2%)	0 (0%)
Do not go to one place	1 (1%)	1 (2%)	0 (0%)
Do not go anywhere	6 (7%)	4 (9%)	2 (5%)
Missing	6	0	1
Benefits			
SNAP Food Benefits	7 (8%)	6 (13%)	1 (3%)
Harris Health System (Gold Card)	6 (7%)	4 (9%)	2 (5%)
TANF	2 (2%)	0 (0%)	2 (5%)
WIC	0 (0%)	0 (0%)	0 (0%)
Social Security	3 (3%)	2 (4%)	1 (3%)
Railroad Pension	1 (1%)	1 (2%)	0 (0%)
SSI	1 (1%)	0 (0%)	1 (3%)
Disability	1 (1%)	0 (0%)	1 (3%)
Other retirement income	5 (5%)	2 (4%)	3 (8%)
Multiple	12 (13%)	4 (9%)	8 (21%)
Missing	54	28	28
Housing Ownership			
Own	36 (39%)	15 (32%)	20 (53%)
Rent	48 (52%)	29 (62%)	15 (39%)
Do not have regular housing	4 (4%)	2 (4%)	2 (5%)
Missing	4	1	1
Age			
N	87	45	37
Mean (SD)	45.4 (14.8)	47.4 (15.0)	44.6 (14.8)
Range	18.0, 80.0	18.0, 80.0	23.0, 72.0
Median (IQR)	43.0 (33.5, 59.5)	51.0 (35.0, 59.0)	40.0 (33.0, 60.0)
Household Size			
N	89	47	37
Mean (SD)	4.1 (2.0)	4.3 (2.0)	3.8 (1.8)
Range	1.0, 10.0	1.0, 10.0	1.0, 10.0
Median (IQR)	4.0 (3.0, 5.0)	4.0 (3.0, 5.5)	4.0 (3.0, 4.0)

Doctor-patient Relationships and Discrimination in Everyday Life of Latina/x Patients

Maricela Castillo MacKenzie¹, MD, Erica E. Marsh², MD, MSCI, FACOG

¹ Clinical Assistant Professor, Department of Family Medicine, University of Michigan, Ann Arbor, MI; mackenna@med.umich.edu

² S Jan Behrman Collegiate Professor of Reproductive Medicine, Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor, MI; marsh@med.umich.edu



INTRODUCTION

- The Environment, Leiomyomas, Latinas, and Adiposity Study (ELLAS) is an NIH-funded prospective cohort study of reproductive age Latinas/x based in Southeast Michigan.
- Although the Latin community is one of the fastest growing populations in the United States, this population continues to be underrepresented in research.
- It is well known that US racial minorities, including Latinas/x, receive poorer quality health care for a wide variety of conditions than their white counterparts.
- Sociodemographic and financial factors play a large role in health outcomes in this group.
- It is important to understand how these factors shape the doctor-patient relationship and contribute to daily discrimination amongst Latinas/x.

PURPOSE

To learn the different sociodemographic aspects that affect the **doctor patient relationships** in Latinas/x

To recognize which sociodemographic aspects play a role in **discrimination in the daily life** of Latinas/x

METHODOLOGY

- Participants were recruited in a community health center with experience serving the Latin population in Detroit.
- Demographic information was collected including age, education level, country of birth, and language preference via bilingual interviewers.
- Participants were asked to complete the Interpersonal Processes of Care and Discrimination in Everyday Life Surveys.
- Univariable and multivariable linear regression models were used for statistical analysis.

RESULTS

Demographics

- A total of 573 Latina/x people ages 21-50 years were enrolled and completed the first study visit.

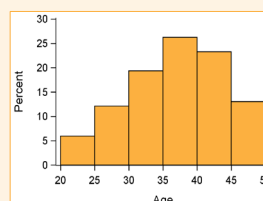


Figure 1. Age distribution of ELLAS participants

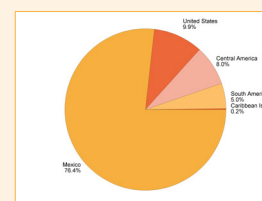


Figure 2. ELLAS participants' country of birth

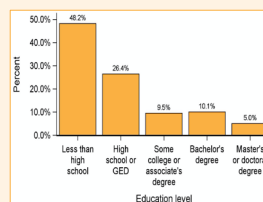


Figure 3. Education level of ELLAS participants



Figure 4. Annual household income of ELLAS participants

Discrimination in everyday life

- Having attended college, income $\geq \$30,000$ /year, being born in the US, higher acculturation were associated with a higher discrimination score.
- In multivariate analysis only having attended college and being born in the US were associated with higher discrimination scores.

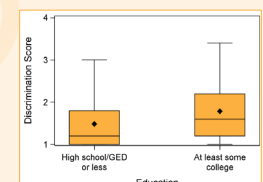


Figure 5. Discrimination scores by education level

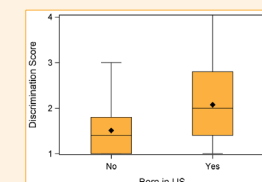


Figure 6. Discrimination scores by country of birth

Doctor-patient relationship

- Older age, lower BMI, not having attended college, income $< \$30,000$ /year, being born outside the US, and lower acculturation were associated with higher doctor-patient relationship scores.
- In multivariate analysis only older age and lower acculturation were associated with higher relationship scores.

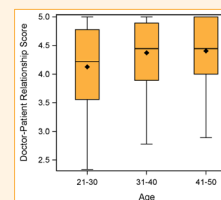


Figure 7. Doctor-patient relationship scores by age

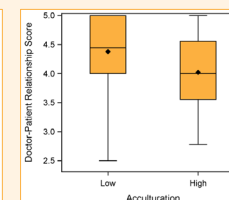


Figure 8. Doctor-patient relationship scores by acculturation

CONCLUSIONS

- It is important to understand the different social aspects that can affect the doctor-patient relationships and discrimination in everyday life of our patients and how they play a role in their overall health.
- More research is needed to understand why these sociodemographic aspects were associated with lower doctor-patient relationship scores and more discrimination in everyday life.

FUNDING

This research is funded by the National Institute on Minority Health and Health Disparities.

Engaging People Experiencing Homelessness in Primary Care

Jahanett Ramirez MD MPH, Liana Petruzzi LCSW, Timothy Mercer MD MPH, Lauren Gulbas PhD, Elizabeth A. Jacobs MD MPP
The University of Texas at Austin School of Social Work and Dell Medical School
Co-presenters: Jahanett.Ramirez@austin.utexas.edu and Liana.Petruzzi@austin.utexas.edu

Background

- Individuals experiencing homelessness die 10 – 20 years younger than the general population.
- Hispanic adults have almost twice the lifetime rate of homelessness compared to non-Hispanic Whites (8.1% vs. 4.8%), yet they are underrepresented in the literature.
- Regular primary care has been shown to improve morbidity and mortality in vulnerable populations.
- Healthcare for the Homeless (HCH) programs across the country have adopted models of care that aim to reduce barriers to care and improve access.
- These models include a focus on comprehensive, coordinated, and integrated care delivery systems through case management and community collaborations that address physical, mental, and social determinants of health.
- However, despite widespread implementation of HCH programs across the country, engaging and retaining individuals experiencing homelessness in primary care remains a challenge.

Purpose

The purpose of this study was to better understand the facilitators and barriers to engagement and retention in primary care for individuals experiencing homelessness in Austin, Texas.

Methodology

- Sample: 31 adults experiencing homelessness who are engaged in care at two different clinic sites (shelter-based or church-based), and 11 individuals who are not engaged in care
- Participants in the 'engaged in care sample' were included if they had at least two EMR-documented visits in the past year at either the ARCH (shelter-based) or Sunrise Clinic (church-based)
- Patients were included in the 'not engaged in care' sample if they had not seen a primary care physician in the previous 12 months
- Semi-structured qualitative interviews with open ended questions were conducted in-person by a MD and patients were verbally consented and compensated with a \$20 gift card
- A multi-phased process of content analysis was used to identify themes across the transcribed interviews

Qualitative Results: Themes

Patient Perceptions

- Homeless stigmatized
- Provider focus too narrow
- Confusion about care plan
- Desire to take care of one-self
- Poor mental health and substance use
- Provider communication and empathy
- Unnecessary tests
- Shuffled around

Facilitators to Care

- Convenient location
- Familiarity with location
- Familiarity with provider
- Resource knowledge
- Co-located resources
- Mental health services
- Personalized care
- Patient education
- Short clinic wait

Structural Barriers to Care

- Chaotic environment
- Unaware of services
- Inconsistent providers
- Financial difficulties
- Short appointments
- Transportation difficulties
- Safety concerns
- Long wait times
- Siloed care

Demographics

Table 1. Baseline Characteristics of Patients

Characteristics	Engaged (N=31)	Not Engaged (N=11)
Median age (range) - years	54 (35-65)	46.5 (26-58)
Male	77% (24)	91% (10)
Race	58% (18) Non-Hispanic white 35% (11) African American 6% (2) Hispanic / Latinx	45% (5) Non-Hispanic white 36% (4) African American 18% (2) Hispanic / Latinx
Education	30% (9) Less than HS 8% (8) Completed HS/GED 43% (13) Some College or more 3% (1) Did not respond	18% (2) Less than HS 64% (7) Completed HS/GED 18% (2) Some College or more
Homelessness	26% (n=8, less than 1 year) 39% (n=12, 1-3 years) 35% (n=11, 4+ years or more)	18% (n=2, less than 1 year) 36% (n=4, 1-3 years) 45% (n=5, 4+ years or more)
Insurance	77% (MAP insurance)	64% (MAP insurance)
Mini-Cog Score	3.5 out of 5 points	4.1 out of 5 points

Quotes

"If the doctor broaden their view on what to do for me. I had a doctor before that would just zoom in on one little problem. Somebody would look at my broad view from my head down to my toes, I know I got messed up ankle, messed up hip, messed up knee, bump in the head. You can't isolate any of that area. You find out they got broaden the prescriptions instead of looking at one little spot at a time . . ."

– Engaged at Sunrise, Hispanic/Latinx participant

"Just to be humble and to understand the needs of those people. Some of those people are hyper and have been mistreated. They have bad temper and don't really know how to control their speech sometimes. Some of them have been on the streets, have been excluded, quite a few have never gone to school. They've been in prison and so on and so forth. So those people need special treatment . . ."

– Engaged at ARCH, Hispanic/Latinx participant

"One-stop-shop is the best part. You want to get as much as you can get down in one day that you choose to leave your valuables behind versus your health. If you're going to have to and you're going to take a loss, you want it to count for something . . ."

– Not Engaged, Hispanic/Latinx participant

Conclusions

- Patients experiencing homelessness have unique needs and psychosocial stressors that require sensitivity from primary care providers and staff
- Convenience of services are essential, such as location, short clinic wait times and co-location of services
- Future studies focused on the unique experience of Hispanic/Latinx adults are needed, as these communities continue to represent over one-fifth (22%) of all people experiencing homelessness (2019 Annual Homeless Assessment Report to Congress).

Clinical Interventions should address:

- Providing education and awareness to staff and providers regarding specific needs of homeless patients
- Addressing shared-decision making during the visit
- Fostering a sense of trust, compassion, and acceptance
- Emphasizing continuity of care, including consistent providers and staff, whenever possible.

Acknowledgements

The authors would like to acknowledge the Department of Internal Medicine at The University of Texas at Austin Dell Medical School, and support by grant T32HL140290 (Post-doctoral Training in Promoting Health Equity in Cardiovascular Disease), awarded to the Steve Hicks School of Social Work at The University of Texas at Austin by the National Heart, Lung, and Blood Institute, and from grants P2CHD042849 (Population Research Center) and T32HD007081 (Training Program in Population Studies), awarded to the Population Research Center at The University of Texas at Austin by the Eunice Kennedy Shriver National Institute of Child Health and Human Development.



The University of Texas at Austin
Steve Hicks School of Social Work



The University of Texas at Austin
Dell Medical School

Evaluation of a Bilingual Cultural Hispanic/Latinx Workshop About Diabetes for Pre-health and Health Professions Students

Reniell Iniguez, MS^{2,1}, Pilar Ortega, MD^{2,3}, Yoon Soo Park, PhD², Jorge A. Girotti, PhD, MHA²

¹University of Illinois at Chicago, College of Medicine (UIC-COM), ²Department of Medical Education UIC-COM, ³Department of Emergency Medicine UIC-COM

Objectives

- Design and implement a **novel bilingual cultural Latino health workshop on diabetes** for pre-health and health professions students.
- Evaluate the workshop's **effectiveness** in achieving educational objectives for learners of varying language proficiency, including heritage learners:
 - Applying bilingual diabetes knowledge in language-appropriate discussions with Hispanic/Latinx individuals.
 - Identifying common Hispanic/Latinx beliefs and practices related to diabetes.
 - Describe the impact of clinician language and cultural skills on Hispanic/Latinx patients with diabetes.

Background

- Latinos have a **disproportionate prevalence** of diabetes and its complications.
- Linguistic and cultural concordance** between patients and clinicians results in **improved outcomes** for Hispanic/Latinx individuals with diabetes.
- Spanish **heritage learners** and **second-language learners** should be trained and supported in gaining the cultural and language skills necessary to provide patient-centered care for Hispanic/Latinx with diabetes.

Method

- The authors implemented a **1-hour** bilingual cultural health topic workshop on diabetes at two different events for pre-health and health professions students enrolled in the existing MOLA mentorship program and the UIC Hispanic Center of Excellence LaHSEP program.
- IRB-approved online voluntary pre- and post-workshop surveys were collected for a total of **51 participants**.

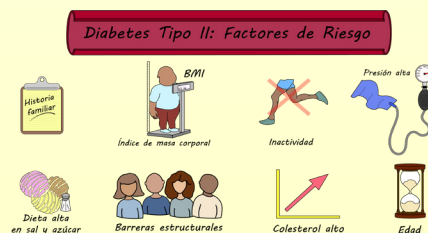


Figure 1. Slide from the *Temas de Salud: Diabetes* workshop that utilizes unique illustrations in Spanish to teach students about diabetes concepts in a culturally-centered approach for Latinos.

Results

Learner Responses to the Pre and Post-Workshop Questions (n=45)

Question	Pre-Test		Post-Test		Difference	Effect size (Cohen's d)	P-value*
	Mean ^a	SD	Mean ^a	SD			
I can accurately and confidently explain the definition of diabetes to a Spanish-speaking person.	2.38	0.83	1.47	0.73	0.91	1.17	< .001
I can accurately and confidently speak with a Spanish-speaking person about how diabetes is related to general health.	2.20	0.84	1.42	0.62	0.77	1.05	< .001
I am familiar with common Hispanic/Latinx cultural belief and practices related to diabetes. And understand how they may affect a person's health decision.	2.00	0.74	1.27	0.45	0.73	1.23	< .001
I believe that I can help Hispanic/Latino patients to prevent developing diabetes.	1.96	0.67	1.42	0.54	0.53	0.88	< .001
I believe that I can help Hispanic/Latino patients to prevent developing complications of diabetes.	2.04	0.82	1.47	0.62	0.58	0.81	< .001
I believe my Spanish language skills will help me provide excellent care to Hispanic/Latino patients.	1.82	0.91	1.44	0.76	0.38	0.46	< .001
I would like to work on and/or improve my medical Spanish skills.	1.31	0.51	1.13	0.34	0.18	0.42	0.02
I believe my Hispanic/Latino cultural competency skills will help me provide excellent care to Hispanic/Latino patients.	2.69	1.94	1.29	0.55	1.40	1.12	< .001
I would like to work on and/or improve my Hispanic/Latino cultural competency skills.	1.36	0.48	1.20	0.40	0.16	0.36	0.02

Table 1: A paired-sample *t* test was applied to assess a statistically significant change in confidence ($p < .05$). Four-point Likert scale: 1 = Strongly agree, 2 = Agree, 3 = Disagree, 4 = Strongly disagree

Key findings:

- Statistically significant improvement in confidence with discussing cultural concepts with Latino patients.**
- After the workshop, participants perceived greater impact of health professional language and cultural skills on patient care.** Participants reported increased confidence that pursuing language and cultural skills will result in better care for Latino patients with diabetes or for diabetes prevention.
- The workshop was effective across learners with variable Spanish-proficiencies.**
- High perceived class usefulness.** All participants felt the workshop was valuable (44/51, 86%) strongly agreed and 14% agreed that they learned valuable cultural skills.

Conclusions

- Additional bilingual workshops are needed** to evaluate and understand the potential of adopting a bilingual pedagogy to prepare health professionals to care for Hispanic/Latinx communities.
- Bilingual educational training modalities may be an **effective means for helping Spanish heritage learners and second-language learners** acquire a deeper understanding of the role of culture on health decisions in Latino communities.
- This course may represent an **opportunity for replication** at other institutions to promote the acquisition of important cultural skills necessary for the proper treatment of diabetes in Latino communities.

Acknowledgements

- Medical Organization for Latino Advancement (MOLA)
- Hispanic Center of Excellence (HCOE) at the University of Illinois Chicago's Latino Health Science Enrichment Program (LaHSEP)

References:

- Ortega P, Pérez N, Robles B, Turmelle Y, Acosta D. Strategies for Teaching Linguistic Preparedness for Physicians: Medical Spanish and Global Linguistic Competence in Undergraduate Medical Education. *Health Equity*. 2019;3(1):312-318. Published 2019 Jul 1. doi:10.1089/health.2019.0029
- Ortega, P., Park, Y. S., Rodriguez, A. J., & Girotti, J. A. (2019). Evaluation of a Spanish Health Topics Course for Undergraduate Pre-health Latino Students. *Cureus*, 11(10).
- Martinez, G. A. (2010). Medical Spanish for heritage learners: A prescription to improve the health of Spanish-speaking communities. In *Building communities and making connections* (Vol. 2, No. 15, pp. 2-15). Cambridge Scholars Publishing in association with GSE Research.

Participant Self-reported Level of Spanish Proficiency

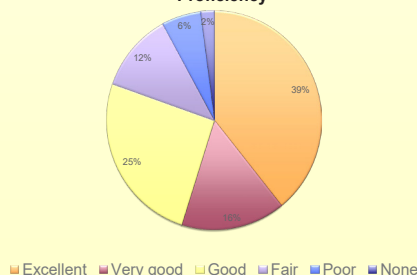


Figure 2. Workshop participants reported varying levels of Spanish proficiencies. Of 51 participants, 47 (92%) identified as Hispanic/Latinx.

EXAMINING RELATIONSHIPS AMONG PHYSICAL ACTIVITY, SOCIAL HEALTH AND SOCIOECONOMIC STATUS IN PREGNANT WOMEN



Presenter: Marleny Carmona, MS3 | Elson S Floyd College of Medicine, Washington State University | marleny.carmona@wsu.edu

Authors: Marleny Carmona, MS3, Christopher P. Connolly, PhD, Ariel A. B. Cruz, Ravneet K. Waraich, MS3, Kathryn E. Staudinger, MS3, Farion Williams, MD,

PURPOSE:

To investigate relationships among physical activity behaviors, measures of social health, and socioeconomic status among pregnant women.

BACKGROUND

There are many social determinants of health, as shown in Figure 1. Our study focused on income, social support, and physical activity. Low SES factors such as low education, low income, and unemployment have shown to be risk factors for postpartum depressive symptoms (1). More, loneliness increases the risk of mortality, and physical activity might be a mediator of loneliness-mortality associations (2). The current ACOG recommendations for exercise are that pregnant women should take part in at least 150 minutes of moderate-intensity aerobic activity every week (3). The maternal benefits of exercise during pregnancy include cardiovascular function, limited pregnancy weight gain (4), decreased musculoskeletal pain (5), reduced lower extremity edema (6), mood stability (7,8), and reduced incidence of gestational diabetes and hypertension in pregnancy (9). The relationship between physical activity, social health, and socioeconomic status in pregnancy has not been reported.

Figure 1. Examples of social determinants of health.



Exercise Physiology & Performance Laboratory

METHODS

In 2019, pregnant women (n=295) completed a questionnaire in Tri-Cities, WA. Pregnant women ages 18 to 45 were recruited in prenatal health clinics and received a \$10 Amazon gift card for their participation after completing the questionnaire, which took about 15 minutes. The questionnaire asked about weekly physical activity (min/week), basic demographics (including socioeconomic status), number of consistent interactions and relationships with others, and perceptions of loneliness. To examine social health, we utilized the Social Network Index (SNI) to measure social interactions and UCLA Loneliness Scale to measure loneliness. Both measures of social health have been psychometrically validated. SNI has three variables: number of high-contact roles, number of people in social networks, and number of embedded networks. We only used the number of high-contact roles as a score for SNI. We divided income into five categories.

Figure 2. Reported high-contact roles.

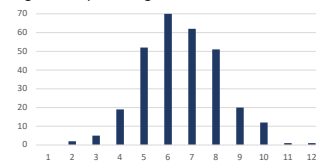


Figure 3. Reported physical activity.

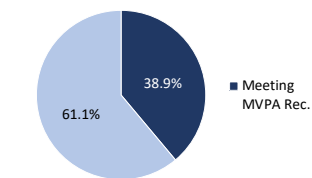
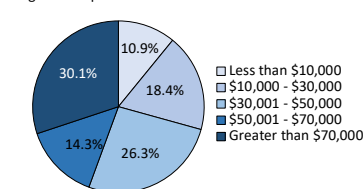


Figure 4. Reported income.



RESULTS

Income was not related to moderate to vigorous physical activity (MVPA) participation or physical activity that met the recommendations for pregnant women by the American College of Obstetricians and Gynecologists (ACOG). Income was correlated with women's high contact social roles ($r=0.225$ with $P < 0.001$), and it was inversely correlated with perceptions of loneliness ($r=-0.15$, $p<0.05$). High-contact social roles were associated with MVPA ($r=.133$, $p<0.05$) and meeting ACOG recommendations ($r=.121$, $P<0.05$). Naturally, perceptions of loneliness and the number of high contact social roles were significantly correlated ($r=-.36$, $p<0.001$). Perceptions of loneliness did not relate to MVPA or meeting ACOG recommendations. The physical activity variables assessed in this study were also significantly correlated ($r=.38$, $P<0.001$), as expected.

Table 1. Pearson correlation of income.

	Meetings MVPA Recommendations	MVPA Participation	High Contact Social Roles	UCLA Loneliness Score
Correlation Coefficient	0.014	0.048	0.225**	-0.154*
P-value	0.82	0.43	0.000	0.016

Table 2. Pearson correlation of high social contact roles.

	Meetings MVPA Recommendations	MVPA Participation	UCLA Loneliness Score	Income
Correlation Coefficient	0.121*	0.133*	-0.355**	0.225*
P-value	0.038	0.022	0.000	0.000

Table 3. Pearson correlation of loneliness.

	Meetings MVPA Recommendations	MVPA Participation	High Contact Social Roles	Income
Correlation Coefficient	-0.019	0.048	-0.355**	0.15*
P-value	0.76	0.43	0.000	0.016

CONCLUSION

- Our findings indicate that income was not significantly related to physical activity behavior.
- Higher income was significantly related to having more social interactions and decreased perceptions of loneliness.
- Pregnant women with higher social interactions participated in MVPA at significantly higher rates and met ACOG physical activity recommendations at higher rates.
- We suspect that low SES is a possible health equity concern for pregnant women as low SES is related to disadvantages to social health, which showed to be related to physical activity behavior.
- It is essential to find potential barriers that low SES women face to help optimize their social health and physical activity behaviors.

REFERENCES

- nontraditional partnerships. Health promotion practice. 2018 Jan;19(1):23-30.
- Goyal D, Gay C, Lee KA. How much does low socioeconomic status increase the risk of prenatal and postpartum depressive symptoms in first-time mothers? Women's Health Issues. 2010 Mar 1;20(2):96-104.
- American College of Obstetricians and Gynecologists. Exercise during pregnancy. July 2019. Available from: <http://www.acog.org/womens-health/faqs/exercise-during-pregnancy>
- Mottola MF. Exercise prescription for overweight and obese women: pregnancy and postpartum. Obstetrics and Gynecology Clinics. 2009 Jun 1;36(2):301-16.
- Pivarnik JM, Chambliss HO, Clapp JF, Dugan SA, Hatch MC, Lovelady CA, Mottola MF, Williams MA. Impact of physical activity during pregnancy and postpartum on chronic disease risk. Medicine & Science in Sports & Exercise. 2006 May;38(5):989-1006.
- Arena B, Maffulli N. Exercise in pregnancy: how safe is it? Sports Med Arthroscop. Rev 2002; 10: 15-22.
- Poudevigne MS, O'Connor PJ. A review of physical activity patterns in pregnant women and their relationship to psychological health. Sports medicine. 2008 Jan;36(1):19-38.
- Poudevigne MS, O'CONNOR PJ. Physical activity and mood during pregnancy. Medicine & Science in Sports & Exercise. 2005 Aug 1;37(8):1374-80.
- Arial R. Exercise: the alternative therapeutic intervention for gestational diabetes. Clinical obstetrics and gynecology. 2003 Jun 1;46(2):479-87.



Elson S Floyd College of Medicine
WASHINGTON STATE UNIVERSITY

Health and Health Services among Hispanic Construction Workers, 2014-2018

Samantha Brown, MPH*, Raina Brooks, MPH, Xiuwen Sue Dong, DrPH

*Presenter; Research Analyst, sbrown@cpwr.com

CPWR - The Center for Construction Research and Training
8484 Georgia Avenue, Suite 1000, Silver Spring, MD 20910, USA



Purpose

Hispanic employment in construction has grown significantly over the years. The study objective was to examine disparities in health and health service utilization between Hispanic and white, non-Hispanic construction workers using national survey data.

Methodology

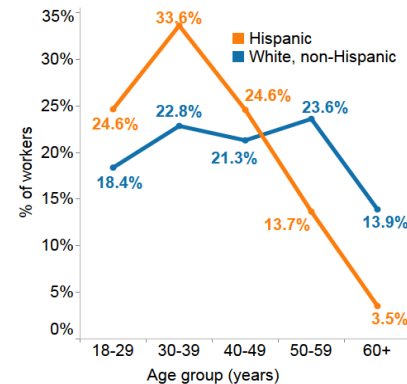
This study analyzed data from the 2014 – 2018 National Health Interview Survey (NHIS), a nationally representative household survey. The NHIS sample adult (aged 18 or older) file was subset to include Hispanic and white, Non-Hispanic construction workers. All five years of data were pooled together, and the survey weights, strata, and clusters were used to account for the complex survey design. Self-reported general health, healthcare utilization, health insurance coverage, and delays in medical care were compared between Hispanic and white, non-Hispanic construction workers using chi-square tests. All numbers in charts were calculated by authors.

Results

Racial/ethnic composition of construction workers, National Health Interview Survey, 2014-2018 (average)

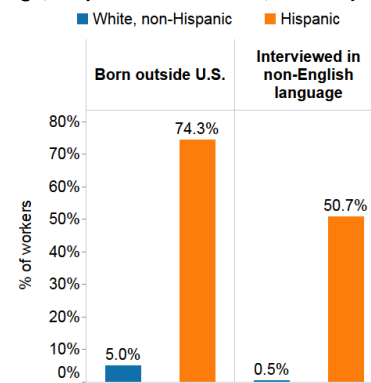
Race/ethnicity	Unweighted N	Weighted N	%
Hispanic	1,435	3.0 million	32.6%
White, non-Hispanic	3,722	6.2 million	67.4%
Total	5,157	9.2 million	100%

Age distribution of construction workers, Hispanic versus white, non-Hispanic*



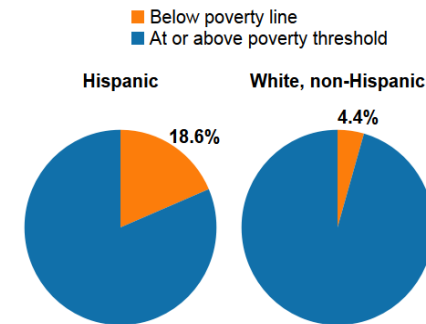
*chi-square $p < 0.0001$

Percentage of construction workers born outside of U.S. or receiving the NHIS in a non-English language, Hispanic versus white, non-Hispanic*



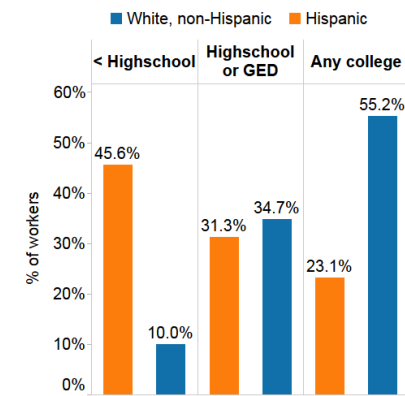
*chi-square $p < 0.0001$

Family income of construction workers, Hispanic versus white, non-Hispanic*



*chi-square $p < 0.0001$

Education of construction workers, Hispanic versus white, non-Hispanic*



*chi-square $p < 0.0001$

This work was supported by the National Institute for Occupational Safety and Health (NIOSH), Grant No. U60OH009762. Any errors in this presentation are the authors' sole responsibility.

Health and Health Services among Hispanic Construction Workers, 2014-2018

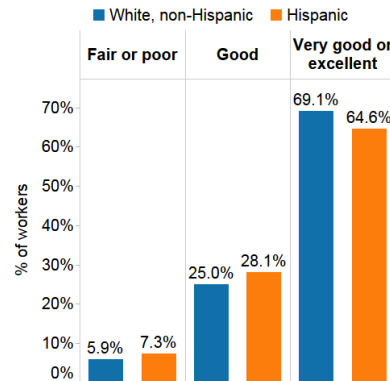
Samantha Brown, MPH*, Raina Brooks, MPH, Xiuwen Sue Dong, DrPH

*Presenter; Research Analyst, sbrown@cpwr.com

CPWR - The Center for Construction Research and Training
8484 Georgia Avenue, Suite 1000, Silver Spring, MD 20910, USA

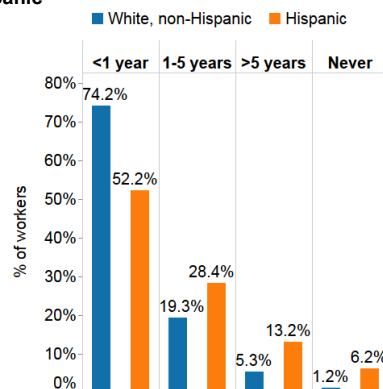


Self-reported general health rating of construction workers, Hispanic versus white, non-Hispanic*



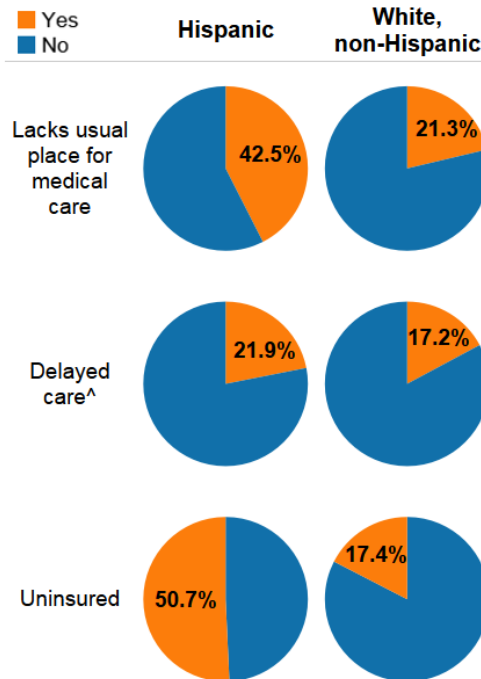
*chi-square $p < 0.05$

Time since last saw healthcare professional, construction workers, Hispanic versus white, non-Hispanic*



*chi-square $p < 0.0001$

Usual place for medical care, care delays, and health insurance coverage among construction workers, Hispanic versus white, non-Hispanic*



*chi-square $p < 0.01$

[^]Delayed medical care in past year due to cost, inability to get appointment soon or to get through by phone, doctor's office closures or long wait times, or lack of transportation.

Conclusion

Hispanic employment in the construction industry has grown significantly over the years. However, this study found that overall health and access to health services among Hispanic workers lag behind that of their white, non-Hispanic counterparts.

- General health:** Despite Hispanic construction workers being younger (on average) than white, non-Hispanics, they were less likely to report that they had **"very good or excellent" health** (64.6% versus 69.1%). This could be in part due to **differences in SES** observed between the two groups.
- Healthcare utilization:** Compared to white, non-Hispanics, Hispanic workers were less likely to have recently **visited a doctor** (visited doctor <1 year ago: 52.2% versus 74.2%) or to have a **usual place for medical care** (57.5% versus 78.7%).
- Barriers to access:** Hispanic workers reported **delayed medical care** more frequently than white, non-Hispanic workers (21.9% versus 17.2%). This could be related to **immigration** status and potential **language** barriers. They were also more than twice as likely to be **uninsured** (50.7% versus 17.4%).

To address the health of this growing population, further action is needed to improve insurance coverage and healthcare services for Hispanic construction workers.



This work was supported by the National Institute for Occupational Safety and Health (NIOSH), Grant No. U60OH009762. Any errors in this presentation are the authors' sole responsibility.



UCLA



Influenza Vaccine Uptake among Underserved Latinx Middle-Aged and Older Adults in South Los Angeles

Background. Vaccination is a powerful prevention tool in the fight against seasonal influenza, among older, underserved, Latinx adults. Despite this, vaccine hesitancy and inconsistent uptake across this heterogeneous population continues to be a substantial public health challenge. A better understanding of factors that impact influenza vaccination behaviors in this group could result in more effective messaging and initiatives promoting universal vaccination among Latinx. This timely exploration may also shed light on similar challenges facing the wide-spread dissemination of the COVID-19 vaccine among aging Latinx.

Purpose. We aimed to explore influenza vaccination uptake and associated co-variables among underserved, Latinx, older adults. We were interested in the role of sociodemographics, living arrangements, financial strain, access and satisfaction with medical care, and the presence of major chronic conditions and/or chronic obstructive pulmonary disease.

Methods. This cross-sectional survey recruited middle-aged and older Latinx residents of South Los Angeles (n=165), a historically under-resourced community of ~1 million in Los Angeles County. Latinx residents aged 55 years or older who had been diagnosed with diabetes and/or hypertension were recruited from senior centers and senior housing centers in the South Los Angeles Service Plan Area (SPA) 6. Bi-variate and multi-variate logistical regression were performed on survey data to explore independent correlates of influenza vaccination.

Authors:

Adrienne Martinez-Hollingsworth, RN, PhD, MSN, PHN
asmartinez@mednet.ucla.edu

Mohsen Bazargan, PhD, Department of Family Medicine, Charles R. Drew University of Medicine and Science, Los Angeles, CA, USA

Theodore C Friedman, MD, PhD, Division of Endocrinology, Metabolism and Molecular Medicine, Department of Internal Medicine, Charles R. Drew University of Medicine and Science, Los Angeles, CA, USA

What we know about how
Providers influence
flu vaccine uptake
among *Latinx older adults*
might help with
Covid-19 vaccine
dissemination.



Findings. Almost half of underserved Latinx older adults in our study (45%) reported influenza vaccination within the 12 months prior to the study. The majority (~85%) reported receiving this recommendation from their primary care provider. However, one-third (30%) of those who received this advice did not get the vaccine. Multivariate logistic regression also associated a decreased likelihood of vaccination with living alone ($p=0.026$), lacking Medicare coverage (0.028), or experiencing higher levels of financial strain (0.020). Difficulty accessing medical care ($p=0.008$) or dissatisfaction with these experiences ($p=0.001$) were also strongly associated with a decreased likelihood of vaccination. Participants diagnosed with COPD had 9.5 (CI: 1.76 – 51.3) higher odds of being vaccinated compared to those without; no similar correlations were detected for diabetes mellitus, hypertension, or other heart conditions.

Discussion. A surprising aspect of this study was the number of Latinx elders who had received a flu vaccine recommendation from a provider but had not been vaccinated. This is consistent with studies among other aging, ethnic/racial minorities and highlight the pivotal role of the provider in wide-spread influenza vaccine adoption. Additional findings reflect known negative impacts of the Social Determinates of Health (SDoH) on preventive care efforts in this group. One striking finding of this study is the lack of a clear association between vaccination and diabetes mellitus, given the frequent monitoring needed to manage this chronic illness.

Conclusion. Findings from this study highlight the need for culturally informed messaging around influenza vaccine among aging Latinx in South LA. Further efforts to quantify associations between lower vaccine uptake and known SDoH are needed to recognize the effect of structural and human factors impacting vaccine uptake. These lessons may be leveraged to improve rapid dissemination of COVID-19 vaccines among this historically underserved group.

Lessons and Strategies Regarding Naloxone Distribution and Funding

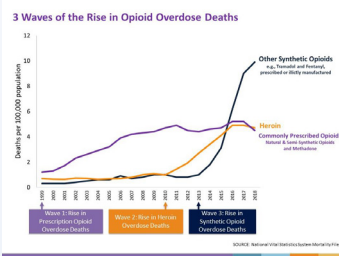
Jason Richie, MS

University of California, San Francisco

INTRODUCTION

To present recommendations for local health officials designed to ensure the availability of cost-controlled naloxone doses, adjusted to fit a community's unique mix of economic, demographic and geographic dynamics.

Cooperation between local health departments, state agencies and state legislatures remains critical. A coordinated approach is overdue, and would address a pressing need for overdose victims, their families, first responders and taxpayers. The funding of naloxone cannot be considered in fiscal isolation, albeit only from a twin perspective of healthcare and public safety.



Sample Media Headlines

- "We Can't Do Without It": First Responders Pay Soaring Price For Overdose Antidote Naloxone (*WLRN Public Radio and Television South Florida*)
- Local Police, EMS Agencies Feel Effect of Rising Naloxone Prices (*Charleston Gazette-Mail*)
- Massive Price Hike for Lifesaving Opioid Overdose Antidote: Suddenly in demand, naloxone injector goes from \$690 to \$4,500 (*Scientific American*)

UCSF
University of California
San Francisco

www.PostedPresentations.com

METHODOLOGY

Interviews and statistics from the Centers for Disease Control and Prevention's Injury Center (CDC), the National Institutes on Drug Abuse (NIDA), the Massachusetts Department of Public Health's and the West Virginia Department of Health and Human Resources.

CASE STUDIES

Massachusetts

- The Office of the Massachusetts Attorney General in partnership with partnered with Department of Public Health and state legislature created a fund (formally known as the Municipal Naloxone Bulk Purchase Trust Fund). The fund allows municipalities to purchase naloxone for use by first responders at a heavily discounted rate.

Data from the Massachusetts Department of Public Health demonstrates the extent to which Massachusetts' Bulk Purchasing Program has spearheaded both fiscal restraint and achievable opioid overdose prevention. Reviewing these records, nearly 1,300 people in Massachusetts died of an unintentional opiate-related overdose in 2014 (representing a nearly 60 percent increase since 2012) and among the highest in the United States during this time period. Regrettably, opioids now kill more people in Massachusetts than car accidents and guns combined. Absent naloxone however, the number of opioid overdose-related fatalities in Western Massachusetts would be 13 to 14 times higher.

West Virginia

- The West Virginia Department of Health and Human Resources (DHHR) purchased one million dollars of naloxone kits, equaling about 34,000 doses. Kits included a 2mg naloxone syringe and atomizer, purchased with funding from the state legislature to DHHR's Office of Drug Control Policy. According to the DHHR, complete distribution entails 22 percent (7,800) of the doses to the West Virginia State Police (WVSP), 24 percent (8,200) to the State Fire Marshall's Office for fire departments and 29 percent (10,000) to support EMS response.

RESULTS

The opioid crisis is a central issue for health departments across the country. Irrespective of size, virtually every community faces rising challenges in treating opioid addiction that creates substantial budgeting issues for health/public safety regulators. What are the lessons health departments can incorporate into grant requests and policy planning?

During 2019-2020 legislative sessions, a range of opioid related bills were passed nationally resulting in new, one-time appropriations. Accordingly, many local communities receive their funding directly from the state, either via legislative or agency appropriations.

Communities maintain differing approaches to Naloxone procurement and distribution, centered on a mixture of higher than average funding, interagency cooperation and predictive mapping among their respective local health departments. As a result, each demonstrated decreased opioid overdose deaths during a time period when stable funding and adequate doses of naloxone were available. The accessible data from these approaches sheds light on how larger variances in funding, legislative appropriations and political calculations impact the states and their respective agencies and departments' ability to mount effective operational responses and reduce a community's rate of opioid overdose deaths.

CONCLUSIONS

Strategies are presented with updated 2018-2019 era data and reflects the current landscape that incorporates new jurisdictional approaches, particularly asset forfeiture and lawsuits against pharmaceutical manufacturers. Endemic problems remain, although the combined efforts are limiting the supply of opioids to patients with conditions of medical necessity and expanding liability.

RECOMMENDATIONS

- **Price Stabilization:** Based on what has been learned in Massachusetts, we know that consistent stabilized pricing is helpful. Opposed to negotiating on a piecemeal basis, consistent pricing and application (particularly for cases where double or even triple doses are needed), will stabilize naloxone pricing. Even though there will be variation in the amount of naloxone used in any given year (particularly in communities with a high rate of transient population), departments and governments will be able to budget without fear of price spikes.
- **Expanded Public Education for Users and Family Members:** Educating the public on the risks associated with overdoses is crucial, however, particularly in local communities where the responsiveness of first responders can be substantially longer than in urban communities.
- **Passage of State Laws:** Spearheaded by local municipalities, Massachusetts, North Carolina and Washington have shown the benefit of enacting laws providing immunity for "good Samaritans," including both family members as well as third-party bystanders. Overdose deaths have decreased in each state since legislation was enacted. In a study conducted five-years after the law's passage, 75 percent of police officers surveyed felt it was important they were at the scene of an overdose to protect medical personnel, and a minority. Currently, 40 states offer some form of protection though a good Samaritan law.
- **Changes in Manufacturing:** Government guarantees for the purchase of naloxone, similar to influenza vaccines, could create a stable demand that may motivate additional pharmaceutical companies to begin manufacturing doses. Stabilizing the key chemical compounds that comprise naloxone are critical to achieve supply and demand.

CONTACT

Jason Richie, MS

jasonrichie@gmail.com



Modulating Early Life Microbiome through Dietary Intervention in Crohn's Disease

THE MELODY Study

Rendon A.P.1, Hawkins K. 1, Nair N. 1, Eisele C. 1, Colombel J. 2, Peter I. 1

1 Icahn School of Medicine at Mount Sinai Hospital, Department of Genetics and Genomic Sciences, New York, USA

2 Icahn School of Medicine at Mount Sinai Hospital, Division of Gastroenterology, Department of Medicine, New York



BACKGROUND AND GOALS

- About 25% of women with IBD become pregnant after their diagnosis, infant born to mothers with IBD have been shown to have a less diverse and more pro-inflammatory gut microbiome compared to that of infants who were born to control mothers.
- Microbiota composition plays an important role in the development of the immune system in early stages of life. Thus, an unbalanced microbiome in early infancy and childhood may lead to an increased risk of immune-mediated diseases later in life. Therefore, changing the microbiome in infants of mothers with IBD may intercept the infant's risk of developing IBD and other immune-modulated diseases.
- The MELODY (Modulating Early Life Microbiome through Dietary Intervention in CD) trial tests the efficacy of a non-invasive dietary intervention during the third trimester of pregnancy in modulating the transmission of the disease from the mother with IBD to offspring, while taking into consideration the genetic and environment factors of the disease.
- The goal of the trial is to see whether the gut microbiota composition can be ameliorated for both pregnant women with CD and their infants via dietary intervention through the IBD-AID (antiinflammatory diet). Through this clinical trial, we hope to provide a deeper understanding of the origin of initial gut bacterial colonization in infants to improve the intervention targets and prevent the development of CD in high-risk individuals.

METHODS

	Timeline	Pregnancy			Delivery	After Birth					Inclusion & Exclusion Criteria
		27-29 w (Baseline)	35 w	37 w		14 d	30 d	90 d	6 mo	12 mo	
 Crohn's disease + IBD-AID diet Crohn's disease + no diet Control + no diet	Samples	Stool Saliva	Stool Saliva	Stool Saliva	Umbilical cord blood	Breast milk			Stool Saliva	Stool Saliva	Inclusion & Exclusion Criteria Arm 1: Crohn's Disease + IBD-AID Diet™ Arm 2: Crohn's Disease + No Diet Change Arm 3: Healthy Controls Sample Collection <ul style="list-style-type: none"> • Infant Questionnaire • Bristol Stool Chart • Stool (Infant & Mother) • Saliva (Infant & Mother) • MECONIUM • Breastmilk • Dietary Questionnaires • ROME IV
	Questionnaires (Q)	24HR Basic Info Q Health history/Reproductive Q FFQ weekly throughout		24HR	Delivery/Postpartum Q		FFQ (diet arm only)	FFQ (diet arm only)	FFQ 24HR Follow-up Q	FFQ 24HR Follow-up Q	
	Samples				Meconium	Stool	Stool	Stool	Stool	Stool	
 Babies	Questionnaires					IDD	IDD	IDD Rome IV	IDD 24HR	IDD 24HR	
		<small>w=gestational weeks, d=days old, m=months old FFQ=Food Frequency Questionnaire (online) <30 minutes 24HR=24 Hour Diet Recall (by phone, three separate days) 20-30 minutes IDD=Infant Diet and Development Questionnaire (online) 10 minutes Rome IV=Assess functional gastrointestinal disorders in infants (by phone)</small>									

At screening (week 27–29), eligible patients wishing to participate in the IBD-AID™ intervention are asked to provide a note from a treating physician indicating that a potential study subject does not have any contraindications to participate in the study. In a letter sent to the treating physicians we stress that they have complete freedom to treat pregnant women according to the disease and pregnancy state at any time during or after the trial and to change or add medical therapy as needed.

After screening, CD patients at 27–30 weeks of pregnancy are self-selected to 1) a 7 to 10-week IBD-AID™ intervention (CD IBD-AID™ intervention, anticipated N ¼ 66, Fig. 1) or 2) habitual diet with no intervention (CD no intervention, anticipated N ¼ 66). Unaffected controls follow habitual diet and receive no intervention (anticipated N ¼ 66). The diet is adapted to address specific needs of 3rd trimester pregnancy without compromising the IBD-AID™ principles (Table 1).

RESULTS

- Accumulating evidence suggests that maternal health, perinatal environmental exposures and microbial colonization during early life exert marked effects on immune and metabolic programming in the baby with long-term health-related consequences, including the predisposition to IBD and other immune-mediated diseases.
- The MELODY trial is aimed to investigate if bacterial manipulation through diet during the 3rd trimester of pregnancy will improve the microbiome composition in the gut of CD patients and lead to the development of a healthier microbiome in the offspring.
- We considered a randomized study design for pregnant women with CD, however, this diet requires shopping, cooking, and planning skills in order to reach the dietary objectives.
- There is a distinct educational component that requires time and attention, even if facilitated by nutritionists.
- Since diet is both extrinsically and intrinsically motivated and compliance is closely associated with these factors, we agreed on a self-selected intervention design to improve adherence to protocol.
- This study will also inform whether a multifaceted dietary intervention may reduce the risk of postpartum flares in the patients and gastrointestinal symptoms and mucosal inflammation in the baby.

Conclusions

- If successful, the IBD-AID™ could be applicable in clinical practice.
- Our study may inform the design of future large-scale intervention studies with the goal of primary risk prevention in high-risk babies born to mothers with immune-mediated diseases. We anticipate that both the expected (and unexpected) data outcomes from this study will stimulate further studies evaluating how the present protocol may be further pursued by the examination of feeding practices in moms, babies and children.
- We will also generate an extensive collection of serial samples and longitudinal clinical data, including identification of specific dietary components correlated with certain functional and quantitative bacterial patterns for future investigations.

This study has received funds from Helmsley Fund

Provision of Non-English Language Services in U.S. Mental Health Facilities

Hieronimus Loho¹, Robert A. Rosenheck M.D.^{2,3}

¹ Yale University School of Medicine

² Department of Psychiatry, Yale University School of Medicine

³ New England Mental Illness Research, Education and Clinical Center,

U.S. Department of Veterans Affairs (VA)

Corresponding Author: hieronimus.loho@yale.edu

BACKGROUND

- To ensure high quality care, patients need to receive mental health services in their primary language.
- There has been little research examining the provision of non-English language services across the nation's mental health facilities.

PURPOSE: National survey data were used to examine the provision and organizational correlates of non-English language services in U.S. mental health facilities.

METHODS

- Using data from SAMHSA's 2018 National Mental Health Services Survey, we examined the differences between mental health facilities that provided non-English language services (n = 5186) and those that did not (n = 2317) across 23 organizational characteristics.
- Characteristics included: type of facility, funding sources, patient volume, number of services such as supportive housing, legal assistance, smoking cessation and others, and being located in the ten states with the highest percentage of people with Limited English Proficiency.
- Further analyses compared facilities that provided language services through on-call interpreters, multilingual staff, or both.

69.1% of U.S. mental health facilities offer services in one or more non-English languages

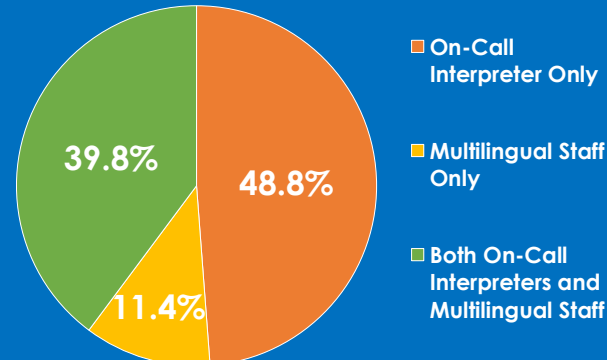
Positive Associations:

- Hospitals (RR = 2.33)
- CMHCs (RR = 1.93)
- High Patient Volume (RR = 1.80)
- Public Ownership (RR = 1.70)
- Located in ten states with the highest percentages of people with Limited English Proficiency (RR = 1.59)
- Providing pro-bono care (RR = 1.51)
- Providing high number of specialized/support services (RR = 1.51)

Negative Associations:

- VA Medical Center (RR = 0.51)
- Residential Facility (RR = 0.33)
- Partial Hospitalization Facility (RR = 0.29)
- Private For-profit Ownership (RR = 0.53)
- Receiving no government funding (federal, state, or local) (RR = 0.23)

Method of Language Service Provision



ADDITIONAL RESULTS

- Facilities relying exclusively on multi-lingual staff were more likely to be private for-profit and less likely to be publicly owned and hospitals.
- Facilities with only on-call interpreters were more likely to be hospitals and less likely to be located in a state with high LEP populations.

CONCLUSIONS

- Most U.S. mental health facilities provide language services, and most do so through on-call interpreters.
- Our study is limited by the self-reported nature of the data, lack of location specificity, and lack of analysis of policy and legislative effects.
- More research needs to be conducted on the access, quality and outcomes of language interpretation and other services related to immigrant patients' mental healthcare.

The authors report no conflicts of interest.



Yale SCHOOL OF MEDICINE

FUNDING

Research reported in this publication was supported by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health under Award Number T35DK104689. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.



Psychoeducational Intervention for Spanish-speaking Patients

Matilde Fredrickson, DO; Frances Respicio, LCSW; Bridget Harrison, MD, MPH
Stanford-O'Connor Hospital Family Medicine Residency Program



Background

The underutilization of mental health services by Spanish-speaking patients is a growing concern in the medical community. Many Spanish-speaking patients referred to a mental health provider do not follow up and have significantly higher rates of premature termination of treatment. A phone questionnaire was provided to nine Spanish-speaking patients with a diagnosis of depression to address the barriers they face in obtaining mental health treatment. The most significant barriers identified by patients included cultural barriers such as fatalism and familism, work constraints and transportation, and cultural insensitivity from providers. Using these results, a psychoeducational intervention was created to address these barriers.

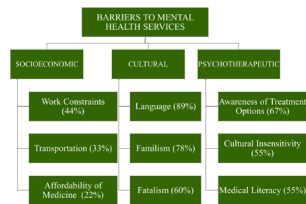


Figure 1: Results from questionnaire addressing barriers to mental health treatment from nine Spanish-speaking patients

Community Partners

Indian Health Center of Santa Clara Valley (IHC) is an organization of FQHCs in Santa Clara County. Its mission is to help ensure the survival and healing of American Indians/Alaskan Natives and the local community providing high quality, comprehensive health care and wellness services.

RotaCare-San Jose is a free clinic located in East San Jose. Their mission is to provide access to healthcare to people unable to pay for primary healthcare. They primarily serve uninsured Spanish-speaking patients. The organization is volunteer-driven and is heavily supported through grants and donations.



RotaCare Bay Area, Inc.
Free Medical Clinics

Methods

I. Created Psychoeducational Intervention



II. Implemented Intervention



Results

I. IHC-Family Medicine Center Continuity Patients: 6 patients attended

	Before session (N=6)	1 month (N=6)	6 months (N=6)	p-value
Medication	16%	66%	66%	0.11
Therapy	0%	0%	0%	1.00
Exercise	16%	66%	66%	0.11
Meditation	0%	16%	16%	0.33

II. IHC-Meridian Non-continuity Patients: 9 patients attended

	Before session (N=8)	3 months (N=8)	p-value
Medication	12%	12%	1.00
Therapy	0%	0%	1.00
Exercise	75%	75%	1.00
Meditation	0%	38%	0.07

III. RotaCare Non-continuity Patients: 18 patients attended

	Before session (N=12)	3 months (N=12)	p-value
Medication	17%	50%	0.10
Therapy	25%	25%	1.00
Exercise	17%	66%	<0.05
Meditation	17%	50%	0.10

IHC-Family Medicine Center Continuity Patient Cohort

- There was no relationship with patients before the intervention
- After the intervention, three patients requested to be started on medication
- At one month, there was an increase in starting medication (16% vs 66% $p=0.11$) and exercise (16% vs 66% $p=0.11$)
- One patient attended therapy but stopped due to language barriers
- At six months, there was no premature termination of medication

IHC-Meridian Non-Continuity Patient Cohort

- There was no relationship with patients before the intervention
- At three months, there was an increase in starting medication (0% vs 38% $p=0.07$)
- There was no increase in starting medication or therapy
- Three patients were interested in starting medication; however, medication could not be offered due to logistical reasons. These patients were instructed to follow up with their primary care provider

RotaCare Non-Continuity Patient Cohort

- This cohort included mainly uninsured patients with no regular primary care provider. There was no relationship with patients before the intervention
- After the intervention, five patients were prescribed medication. At one month, only 20% actually began taking medication. Many started other treatments instead, such as exercise and meditation
- At three months, there was an increase in starting medication (17% vs 50% $p=0.10$), exercise (17% vs 66% $p<0.05$), and meditation (17% to 50% $p=0.10$)
- One patient started attending therapy sessions but stopped due to work constraints

Discussion

Throughout this project, I realized many Spanish-speaking patients want to learn more about mental health. However, many of these patients have poor access to care or have cultural barriers with their current primary care providers. The lack of continuity with patients created a challenge to implementing this intervention at different clinic sites. Medication uptake rates might have been higher for non-continuity patients if medication had been prescribed during the intervention and if follow up with a provider in that same clinic had been arranged. After the intervention, only two patients started therapy sessions but stopped prematurely due to work constraints and language barriers. Many Spanish-speaking patients with depression will be treated for mental health issues solely by their primary care providers. Therefore, I believe it is crucial that PCPs learn basic therapy skills and are trained to be culturally-sensitive when treating Spanish-speaking patients for their mental health. This project with a small sample size of patients nonetheless demonstrated the feasibility of a limited, discrete psychoeducational intervention as a step in addressing the mental health needs of Spanish speaking patients with depression.

Recommendations

- Create class material to train other primary care providers to offer this intervention
- Improve continuity with patients after the intervention
- Create an app to provide culturally sensitive meditation and therapy
- Measure PHQ-9 scores in order to track depression severity

Acknowledgments

I want to thank my community partners, Indian Health Center and RotaCare, for allowing me to offer this intervention to their Spanish-speaking patients.

I want to thank Frances Respicio, LCSW and Lisa Dale Miller, LMFT for teaching me about trauma and its impact on health.

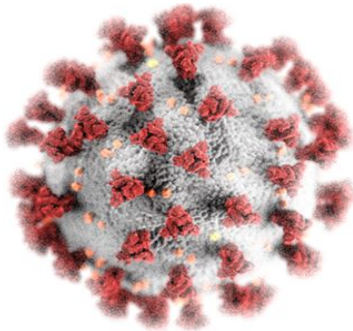
Thank you to the following faculty members for supporting my ideas: Bridget Harrison, MD MPH, Grace Yu, MD, Katherine Mullins, MD, and Andrew Schechtman, MD.

For Further Information

Please contact me at matildef@stanford.edu for more information.

Safe and Effective Transitions of Care in a Pandemic Environment

Background: In response to COVID-19, hospitals have had to rapidly adapt their discharge planning protocols and have had to continue to adapt as new information continues to come out. COVID-19 pandemic has highlighted the importance of discharge planning for patient care and has added a new element of public health in that we have to take all possible precautions to ensure that patients are not spreading the virus after they leave the hospital.



Purpose: Skilled and Unique Discharge Assessments to meet the needs of our most Vulnerable Populations.
Older adults- home safety evaluation, in-home visit by a visiting nurse on the day of discharge to verify the patient has everything they need when they arrive home, family support, ability to isolate.
Patients with mental health disorders, follow up care and compliance. Living conditions (street, car, as well as common comorbidities)
Homeless population-shelters, hotels, SNF's, or other available resources.

Relevance: Outpatient follow up, management and compliance review to monitor worsening symptoms, needs, avoids readmission, cross contamination and putting the public at risk.

Discharge planning should begin at the time of admission. Assessment for safe discharge by the healthcare team involves several key factors that determine whether the patient will meet the requirements to heal and maintain health outside of a hospital setting.

These key factors include:

- patient's physical ability to follow discharge instructions and perform activities of daily living
- patient's psychological ability to understand and follow discharge instructions
- support system and financial means to obtain the appropriate follow-up care.

Consideration for COVID Patient's:

Transportation to next destination

DME supplies

Isolation needs

Follow up care

Support system

Conclusions:

Effective communication is fundamental to ensuring that patients become engaged in their care and, consequently, better equipped to follow discharge instructions and self-monitor after leaving the acute care setting.

A sustainable discharge strategy comprises identifying and addressing patient specific factors that could lead to readmission, education, developing a patient-focused after-care plan and ensuring a smooth transition to a post-acute setting.

Pandemic Coordination:

Assess if the patient will be able to maintain home-isolation recommendations (Does the patient have the ability to understand isolation recommendations? Does the patient have a psychiatric disorder or medical condition that may prevent them from maintaining isolation recommendations?).

- Assess if the patient's home is suitable to adhere to isolation recommendations (Does the patient reside in a communal environment, such as a single-room occupancy, which shares bathroom or kitchen facilities?).

When discharging to a long-term care facility and the patient requires transmission-based precautions, adhere to the following recommendations:

- Prior to transfer, review precautions with the accepting facility to ensure that the facility has the proper personal protective equipment and ability to adhere to precautions.
- Preference should be given to facilities that already have cared for COVID-19 cases or have a unit designated for COVID-19 patients.

When discharging to a long-term care facility and the patient no longer requires transmission-based precautions:

- Symptomatic patients should be placed in single rooms and be restricted to their rooms.
- Asymptomatic patients require no further restrictions.

UCI Health

Sonia
Valdez,DNP,RN,ACNP,GANP,PHN,
CVRN-BC



Jessica Presa,¹ Antonio Iglesias,¹ Amit Srivastava,¹ Liping Huang²

¹Vaccine Medical Development, Scientific & Clinical Affairs, Pfizer Inc, Collegeville, PA; ²Patient Health and Impact, Pfizer Inc, Collegeville, PA

Presenting Author: Jessica Presa

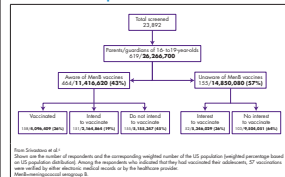


METHODOLOGY

- ### Parent study

- Weighted results (n=619) indicated that 57% of parents were unaware of MenB vaccines (**Figure 1**)

Figure 1. Parent Study: Flow Chart of Study Population and Groups



- Survey multivariate analyses
 - Aware vs not aware of MenB vaccines
 - Hispanic or non-White race correlated with lack of awareness [odds ratio (OR) 2.20, 95% CI 1.09, 4.46; **Figure 2A**]
 - Added interest in vaccine vs no interest to vaccinate
 - Parents who did not feed the HCP knew their child well: less likely to vaccinate; interested to vaccinate (OR 0.43, 95% CI 0.20, 0.93; **Figure 2B**)
 - Hispanic vs. non-Hispanic
 - Having employer-based insurance (OR 3.34, 95% CI 1.09, 10.21) or other insurance (OR 3.66, 95% CI 1.06, 12.66) correlated with having been MenB vaccinated (**Figure 2C**)
 - Unaware but interested vs. unaware and not interested
 - Interest in MenB vaccination was higher in Hispanic individuals (compared with non-Hispanic Black or non-Hispanic other; OR 5.05, 95% CI 1.13, 22.63; **Figure 2D**)

HCP study

- Survey
 - A total of 529 HCPs completed the survey (**Figure 3**)
 - Interpretation of the ACP recommendations
 - MenB vaccines were disparately recommended based on either patient age (48%) or risk (41%; **Figure 4**)
- Chart review
 - Of the 529 HCPs surveyed, 453 [85.6%] conducted patient chart reviews of 2832 patients 16–23 years of age
 - Characteristics that varied between MenB vs MenACWY vaccine recipients were age, ethnicity, student status, living arrangement, insurance coverage, previous receipt of other vaccines, and treatment by a frequent MenB vaccine prescriber (**Table 1**)
 - MenB vaccine recipients were more likely than those who had not received the vaccine to be non-Hispanic White [compared with all other race/ethnicity categories] (**Table 2**)

RESULTS

Figure 2. Parent Study: Factors Associated With Vaccine Awareness and Utilization According to Logistic Regression Modeling

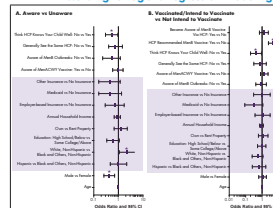


Figure 4. HCP Study: HCPs' Interpretations of ACIP Vaccine Recommendations

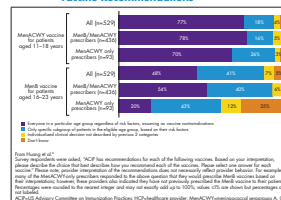


Table 1. HCP Study: Patient Characteristics by MenB Vaccine Receipt†

Vaccine Receipt				
Characteristic	Received Mono or Both MeningoVacc Vaccines ^a (n=1521)	Received MeningoVacc Vaccine only ^b (n=558)	P Value	
Age				
Mean (SD), y	17.2 (4.1)	17.4 (4.2)	<0.001	
Range	1-24	1-24		
Ethnicity				
White/Caucasian	102 (6.7)	439 (62.8)		
African American	148 (16.3)	163 (10.9)		
Asian	136 (8.9)	79 (9.2)		
Other	79 (5.2)	56 (8.5)		
Don't know/not available	36 (2.4)	18 (2.1)	0.02	
Religion				
Hipanic	167 (11.2)	135 (17.5)		
Non-Hipanic	235 (28.2)	667 (77.7)		
Don't know/not available	48 (3.4)	56 (7.8)		
High school graduate	107 (7.1)	537 (80.2)	<0.001	
College/graduate student	550 (36.2)	202 (29.3)	<0.001	
Religion				
Roman	979 (64.4)	471 (78.2)		
On-campus dorm	324 (21.3)	10 (1.5)		
Spoke with other students	107 (7.1)	45 (5.2)		
Alone	43 (2.8)	31 (4.5)		
Other	8 (0.5)	0 (0.0)		
Don't know	60 (3.9)	21 (2.4)		
Insurance coverage				
Medicaid	1056 (69.8)	580 (86.4)	0.001	
Student Healthcare plan	111 (7.2)	46 (6.5)		
Government/VA hospital	36 (2.4)	11 (1.3)		
No insurance/charity power	22 (1.4)	20 (2.3)		
Medicaid	5 (0.3)	0 (0.0)		
Don't know	17 (1.1)	5 (0.6)		
Ever received other vaccines				
Measles/first dose	1144 (75.2)	826 (96.8)	<0.001	
MeningoVacc booster dose	1002 (65.9)	685 (79.8)	<0.001	
HPV	546 (35.9)	546 (81.7)	<0.001	
Tdap	1252 (82.3)	787 (90.7)	<0.001	
Treated by a frequent MenQuest member	1250 (82.2)	639 (74.5)		

Abbreviations: SD, standard deviation; HCA, Health Care Associates.

^aValues are presented as % (95% confidence interval).

^bValues are presented as % (95% confidence interval).

^cValues are presented as % (95% confidence interval).

^dValues are presented as % (95% confidence interval).

^eValues are presented as % (95% confidence interval).

^fValues are presented as % (95% confidence interval).

^gValues are presented as % (95% confidence interval).

^hValues are presented as % (95% confidence interval).

ⁱValues are presented as % (95% confidence interval).

^jValues are presented as % (95% confidence interval).

^kValues are presented as % (95% confidence interval).

^lValues are presented as % (95% confidence interval).

^mValues are presented as % (95% confidence interval).

ⁿValues are presented as % (95% confidence interval).

^oValues are presented as % (95% confidence interval).

^pValues are presented as % (95% confidence interval).

^qValues are presented as % (95% confidence interval).

^rValues are presented as % (95% confidence interval).

^sValues are presented as % (95% confidence interval).

^tValues are presented as % (95% confidence interval).

^uValues are presented as % (95% confidence interval).

^vValues are presented as % (95% confidence interval).

^wValues are presented as % (95% confidence interval).

^xValues are presented as % (95% confidence interval).

^yValues are presented as % (95% confidence interval).

^zValues are presented as % (95% confidence interval).

Figure 3. HCP Study: Flow Chart of Respondents by Prescribing Patterns and Provider Type

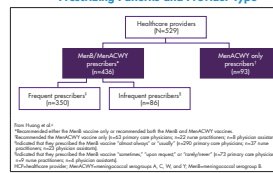


Table 2. HCP Study: Patient Factors Associated With Likelihood of Receiving MenB Vaccine*

Parameter		Estimate ± SE	P Value	Odds Ratio
Sex	Female	-0.175±0.089	0.051	0.84
	Male	0		1.00
	Non-Hispanic Black	-0.281±0.126	0.026	0.75
Race/ethnicity	Hispanic	-0.366±0.132	0.006	0.69
	Asian	-0.255±0.160	0.112	0.77
	Other/don't know/NA	-0.239±0.175	0.173	0.78
	Non-Hispanic White	0		1.00
Living arrangement	On-campus dormitory/ sharing with others	0.739±0.113	<0.0001	2.09
	Parents/don't share/don't know	0		1.00
Ever received HPV vaccine	Yes	0.635±0.103	<0.0001	1.88
	No	0		1.00
Ever received Tdap vaccine	Yes	-1.246±0.156	<0.0001	0.28
	No	0		1.00
Treated by an inpatient MenB vaccine prescriber	Almost always/usually	0.460±0.107	<0.0001	1.58
	Sometimes/upon request/ rarely/never	0		1.00

Note: History at 0.
 *P-values were adjusted in full form.
 †Based on the adjusted model using reference groups.
 ‡Covariates in parentheses: HIV status, previous liver blood-transfusion, sexual activity, 19-valent pneumococcal conjugate vaccine, hepatitis, and ocular disease. ††omitted error.

CONCLUSIONS

- Real-world evidence demonstrated that racial and socioeconomic disparities exist in the MenB vaccine-eligible adolescent population in the United States, specifically within the Hispanic population
- Our results underscore the need to reexamine the US meningococcal immunization platform, with the goal of ensuring that all US adolescents, including Hispanic adolescents, are fully protected against meningococcal disease
- The published results of the parent and HCP studies are available^{4,6}

REFERENCES

1. Mbanyi SA, et al. *MMWR Recomm Rep* 2020;69(10):RR-91-141.
2. Centers for Disease Control and Prevention. Enhanced Meningococcal Disease Surveillance Report, 2018. Available at: <https://www.cdc.gov/meningococcal/downloads/NCRD-EMS-Report2018.pdf>. Accessed March 2, 2021.
3. Bart SM, et al. Impact of a Category B recommendation: Meningococcal B (MenB) vaccine uptake among adolescents in Philadelphia County. Presented at: Pediatric Academic Societies, 2018; Toronto, Canada.
4. Watkins E and Feenster K. *Open Forum Infect Dis*. 2018;5(suppl 1):S737. doi:10.1093/ofid/ofy1210.2113.
5. Srivatsa A, et al. *BMC Vaccin Immunol*. 2020;20(1):1109.
6. Huzina L, et al. *Hum Vaccin Immunother*. 2020;16(4):933-944.

FUNDING AND ACKNOWLEDGMENTS

These studies were sponsored by Pfizer Inc. Editorial/medical writing support was provided by Kate Russin, PhD, of ICON plc (North Wales, PA) and was funded by Pfizer Inc.

DISCLOSURES

JP, AI, AS, and LH are employees of Pfizer Inc and may hold stock or stock options.



Sports Medicine at AltaMed (FQHC): Utilizing in-house primary care sports medicine physician to care for our community

Alexander Soto, MD/MPH Candidate of David Geffen School of Medicine at UCLA
Faculty Advisor: Daniel Diaz, DO of AltaMed Institute for Health Equity



PURPOSE

AltaMed Health Services is a federally qualified health center (FQHC) system that provides care to more than 300,000 Southern California Residents through 39 accredited sites in Los Angeles and Orange County. Orthopedic surgeons have been the main specialty referral for musculoskeletal complaints, both surgical and non-surgical. As a result, there have been approximately 8,635 referrals over a 12-month period (October 2019-September 2020). Chart review of a small sample of these referrals indicate that approximately 90% of these referrals can be treated non-surgically by a primary care sports medicine physician. In October 2020, a sports medicine clinic was created at the East Los Angeles Commerce AltaMed Clinic, which was identified as the clinic that encompassed 12% of all orthopedic referrals throughout the AltaMed system. The purpose of this project is to assess the impact of having an in-house sports medicine physician regarding decreasing the number of referrals to outside specialty clinic for non-surgical treatments, increasing patient access to care at primary medical home and assess the costs to AltaMed.

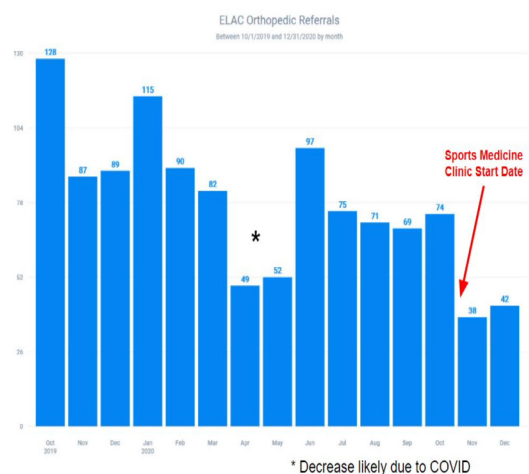
METHODOLOGY

We identified the AltaMed location at East LA Commerce as the top utilizer of orthopedic referrals from October 2019-September 2020 and subsequently began a primary care sports medicine clinic at this location in October 2020 where our in-house specialist dedicated half a day of clinic (0.1 FTE) per week. Since 2019, AltaMed has utilized EPIC as their electronic health records system. A chart review in EPIC was used to assess the change in the amount of orthopedic referrals over a two month span.

RESULTS

Prior to the start of the primary care sports medicine, the clinic averaged 84 referrals for orthopedic surgery. By creating a simplified referral process for providers, the number of referrals to orthopedic surgery decreased by 52 percent in the two months of implementation of the sports medicine clinic (0.1 FTE). The average number of referrals went from 84 to 40.

Figure 1 represents the number of orthopedic referrals placed by ALL providers at East LA Commerce



CONCLUSION

Based on the results, by decreasing the number of referrals to orthopedic surgery and increasing clinic visits via sports medicine, we can create a sustainable model to ensure patients have continued access to much-needed services while having less barriers to care.

FUTURE STEPS

- Prospectively assessing the percentage of referrals to orthopedics and how many of these referrals can be seen with our primary care sports medicine clinic.
- If the patients were seen by orthopedics, what was the severity of their condition. This will allow us to know how many of our patients actually have conditions that cannot be treated through our sports medicine clinic and should in fact be seen by orthopedics (surgery candidates).
- Chart review for how many days it took for patients who were referred to sports medicine to actually be seen for sports medicine. This will be compared with the timeline in which it takes patients to see orthopedics.
- Chart review for the top referrals to orthopedics and sports medicine.
- Identify the financial impact on the organization.

Successful Recruitment Strategies during COVID-19 Among Underserved Hispanics/Latinxers with Type 2 Diabetes

José Marino^{1,2,3}, MPH, jmarino21@northwell.edu

(1) Department of Medicine, Division of Health Services Research, Northwell Health, Manhasset, NY, USA (2) Center for Health Innovations and Outcomes Research, Northwell Health, Manhasset, NY, USA (3) Donald and Barbara Zucker School of Medicine at Hofstra/Northwell, Manhasset, NY, USA

Purpose
<ul style="list-style-type: none"> Type 2 Diabetes Mellitus (T2D) is one of the most prevalent chronic diseases currently decreasing life expectancy of patients. Hispanic/LatinX (H/L) have a 66% higher risk of being diagnosed with T2D than non-H/L whites. Diabetes Telehealth Management (DTM) is an innovative technology that has been shown to improve outcomes of T2D patients in general. Our ongoing mixed methods, randomized control trial (RCT) explores the use of DTM among underserved H/L patients with T2D. Due to the COVID-19 Pandemic, approaches to overcome risks to in-person recruitment and home laboratory services were identified and assessed in order to continue patient recruitment.

Methodology
<ul style="list-style-type: none"> Risk-reduction strategies were identified by reviewing recruitment protocols. Pre-COVID (September 30, 2019-March 13, 2020) was defined as the period before enrollment halted. Recruitment was paused between March 14 and June 30 of 2020. Post-COVID (July 1, 2020 – December 31, 2020) was defined as the period in which The Institutional Review Board approved the risk-reduction strategies and recruitment restarted. Strategies were evaluated and the following measures were compared Pre- and Post- COVID-19: study acceptance rates, reasons for refusal, and patient-reported diabetes-related emotional distress at enrollment measured by the Problem Areas in Diabetes scale (PAID-5) Short-form.

Funding
<p>This work was supported through a PCORI award (No. 9185), Washington, DC. All statements, including findings and conclusions, are solely those of the authors and do not necessarily represent the views of the PCORI, its Board of Governors or Methodology Committee.</p>

Results		
TABLE 1 RISK-REDUCTION STRATEGIES IDENTIFIED AND MODIFICATIONS TO RECRUITMENT PROTOCOLS DUE TO COVID-19		
RCT Study Process	Pre-COVID	Post-COVID
Recruitment method	In-person, Physician Referrals	Phone Recruitment, Mailing of research intro letters, Physician Referrals
Approach method	Before, after or during patient's physician appointment	Call patients to offer study participation up to three times over a one-week period
Collection of Outcomes		
Primary outcome variable	In-clinic/lab site testing	In-clinic/lab site testing with an option for in-home blood-draw services (free of charge)
Other variables	In-person survey administration	Phone survey administration
Follow-ups and equipment delivery	On-site during clinic visit and at patient's home	By phone and contactless delivery

TABLE 2 PARTICIPANT RECRUITMENT REPORTING FOR PRE- AND POST- COVID-19 TIME PERIODS				
	Participants Approached	Participants Declined	Participants Enrolled	Acceptance Rate
Pre-COVID	123	80	43	35%
Post-COVID	277	225	52	18%

TABLE 3 PARTICIPANT REASONS FOR REFUSAL PRE- AND POST- COVID-19 TIME PERIODS		
Reason	Pre-COVID	Post-COVID
Declined at consent	3	0
Don't need help	13	16
Don't want to deal with diabetes	2	15
Don't want to participate in research	0	4
Family approval needed	2	1
Liability Concern	0	2
No reason	2	0
No time	29	20
Not interested	25	86
Other	2	124
Too complicated	2	0

Results Cont.

TABLE 4 AVERAGE TOTAL SCORES ON THE PAID-5 SHORT-FORM PRE- AND POST-COVID-19 TIME PERIODS


	Average total scores	Standard Deviation	Range
Pre-COVID	11.26	6.12	0-20
Post-COVID	9.92	5.65	0-20

Note: A score of ≥ 8 indicates possible diabetes related emotional distress.

Conclusions
<ul style="list-style-type: none"> Risk reduction measures (Table 1) allowed the recruitment of patients to continue with minimal risk. Although acceptance rate is lower during Post-COVID, phone recruitment has facilitated an increase in total volume of patients approached, twice as many compared to in-person – as by phone patients can quickly assess study participation – and enrolled about 25% more compared to Pre-COVID in the same six-month time period (Table 2). Reasons for refusal are shown in Table 3 and a higher proportion of patients reported having other reasons for refusing study participation post-COVID (i.e. patient did not call back, phone not in service). Both pre/post-COVID PAID-5 scores were >8 indicating possible distress and warrants further assessment. We pose that the constant contact by nurses (in both groups, telemonitored and outpatient management) provides comfort to underserved patients in a time of crisis, thereby minimizing the emotional stress related to diabetes during the COVID-19 pandemic. Though this study is focused on underserved H/L patients with T2D, home laboratory testing and phone recruitment were successfully implemented and should be explored by other studies where physical presence is not required.

QR Code

Follow QR code for more information on our published manuscript on adapting a DTM intervention for underserved H/L patients with T2D



Use your smartphone to scan

References

1. American Diabetes Association. 10.2. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S10–S18.
2. American Diabetes Association. 10.3. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S19–S26.
3. American Diabetes Association. 10.4. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S27–S32.
4. American Diabetes Association. 10.5. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S33–S41.
5. American Diabetes Association. 10.6. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S42–S47.
6. American Diabetes Association. 10.7. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S48–S54.
7. American Diabetes Association. 10.8. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S55–S61.
8. American Diabetes Association. 10.9. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S62–S67.
9. American Diabetes Association. 10.10. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S68–S73.
10. American Diabetes Association. 10.11. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S74–S79.
11. American Diabetes Association. 10.12. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S80–S85.
12. American Diabetes Association. 10.13. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S86–S91.
13. American Diabetes Association. 10.14. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S92–S97.
14. American Diabetes Association. 10.15. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S98–S103.
15. American Diabetes Association. 10.16. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S104–S109.
16. American Diabetes Association. 10.17. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S110–S115.
17. American Diabetes Association. 10.18. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S116–S121.
18. American Diabetes Association. 10.19. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S122–S127.
19. American Diabetes Association. 10.20. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S128–S133.
20. American Diabetes Association. 10.21. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S134–S139.
21. American Diabetes Association. 10.22. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S140–S145.
22. American Diabetes Association. 10.23. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S146–S151.
23. American Diabetes Association. 10.24. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S152–S157.
24. American Diabetes Association. 10.25. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S158–S163.
25. American Diabetes Association. 10.26. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S164–S169.
26. American Diabetes Association. 10.27. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S170–S175.
27. American Diabetes Association. 10.28. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S176–S181.
28. American Diabetes Association. 10.29. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S182–S187.
29. American Diabetes Association. 10.30. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S188–S193.
30. American Diabetes Association. 10.31. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S194–S199.
31. American Diabetes Association. 10.32. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S200–S205.
32. American Diabetes Association. 10.33. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S206–S211.
33. American Diabetes Association. 10.34. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S212–S217.
34. American Diabetes Association. 10.35. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S218–S223.
35. American Diabetes Association. 10.36. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S224–S229.
36. American Diabetes Association. 10.37. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S230–S235.
37. American Diabetes Association. 10.38. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S236–S241.
38. American Diabetes Association. 10.39. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S242–S247.
39. American Diabetes Association. 10.40. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S248–S253.
40. American Diabetes Association. 10.41. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S254–S259.
41. American Diabetes Association. 10.42. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S260–S265.
42. American Diabetes Association. 10.43. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S266–S271.
43. American Diabetes Association. 10.44. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S272–S277.
44. American Diabetes Association. 10.45. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S278–S283.
45. American Diabetes Association. 10.46. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S284–S289.
46. American Diabetes Association. 10.47. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S290–S295.
47. American Diabetes Association. 10.48. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S296–S301.
48. American Diabetes Association. 10.49. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S302–S307.
49. American Diabetes Association. 10.50. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S308–S313.
50. American Diabetes Association. 10.51. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S314–S319.
51. American Diabetes Association. 10.52. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S320–S325.
52. American Diabetes Association. 10.53. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S326–S331.
53. American Diabetes Association. 10.54. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S332–S337.
54. American Diabetes Association. 10.55. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S338–S343.
55. American Diabetes Association. 10.56. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S344–S349.
56. American Diabetes Association. 10.57. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S350–S355.
57. American Diabetes Association. 10.58. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S356–S361.
58. American Diabetes Association. 10.59. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S362–S367.
59. American Diabetes Association. 10.60. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S368–S373.
60. American Diabetes Association. 10.61. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S374–S379.
61. American Diabetes Association. 10.62. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S380–S385.
62. American Diabetes Association. 10.63. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S386–S391.
63. American Diabetes Association. 10.64. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S392–S397.
64. American Diabetes Association. 10.65. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S398–S403.
65. American Diabetes Association. 10.66. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S404–S409.
66. American Diabetes Association. 10.67. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S410–S415.
67. American Diabetes Association. 10.68. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S416–S421.
68. American Diabetes Association. 10.69. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S422–S427.
69. American Diabetes Association. 10.70. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S428–S433.
70. American Diabetes Association. 10.71. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S434–S439.
71. American Diabetes Association. 10.72. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S440–S445.
72. American Diabetes Association. 10.73. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S446–S451.
73. American Diabetes Association. 10.74. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S452–S457.
74. American Diabetes Association. 10.75. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S458–S463.
75. American Diabetes Association. 10.76. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S464–S469.
76. American Diabetes Association. 10.77. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S470–S475.
77. American Diabetes Association. 10.78. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S476–S481.
78. American Diabetes Association. 10.79. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S482–S487.
79. American Diabetes Association. 10.80. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S488–S493.
80. American Diabetes Association. 10.81. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S494–S499.
81. American Diabetes Association. 10.82. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S500–S505.
82. American Diabetes Association. 10.83. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S506–S511.
83. American Diabetes Association. 10.84. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S512–S517.
84. American Diabetes Association. 10.85. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S518–S523.
85. American Diabetes Association. 10.86. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S524–S529.
86. American Diabetes Association. 10.87. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S530–S535.
87. American Diabetes Association. 10.88. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S536–S541.
88. American Diabetes Association. 10.89. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S542–S547.
89. American Diabetes Association. 10.90. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S548–S553.
90. American Diabetes Association. 10.91. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S554–S559.
91. American Diabetes Association. 10.92. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S560–S565.
92. American Diabetes Association. 10.93. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S566–S571.
93. American Diabetes Association. 10.94. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S572–S577.
94. American Diabetes Association. 10.95. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S578–S583.
95. American Diabetes Association. 10.96. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S584–S589.
96. American Diabetes Association. 10.97. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S590–S595.
97. American Diabetes Association. 10.98. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S596–S601.
98. American Diabetes Association. 10.99. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S602–S607.
99. American Diabetes Association. 11.00. Standards of Medical Care in Diabetes—2019. *Diabetes Care*. 2019;42(Suppl 3):S608–S613.

Julia M. Jurkiewicz MSN, RN, NE-BC, AMB-BC, Orlando J. Penaloza, MD, FACP, AAHIVS, Sotero Rodriguez, LPN, Veronica Gonzalez, MBA, Victor Gonzalez Benitez, MD, Angela Olarte, CRNP, Betty Bohorquez, PA-C
Valley Health Partners Community Health Center, Allentown, Pa.

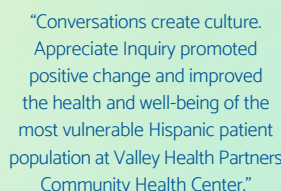
- Centro de Salud (CDS), an Internal Medicine health center treating the Hispanic-Latino patient population, serves the highest risk patient population across all internal and family medicine practices at Lehigh Valley Health Network (LVHN) and Valley Health Partners Community Health Center (VHPCHC).
- CDS supports the quadruple aim of the Institute for Healthcare Improvement (IHI): Improved patient outcomes, patient experience, lower cost of care, and improved physician experience
- Patients at CDS have multiple comorbidities impacted by their social determinants of health, putting them at risk for developing complications related to their uncontrolled Hypertension
- Hypertension in the United States has risen in prevalence, and management of this condition remains a problem due to challenges with self-management behaviors
- The staff and providers at CDS utilize the Appreciate Inquiry (AI) model to support change management and quality improvement
- AI supports a culture of conversation that is appreciative and inquiry-based focusing on the strengths of each staff member, creating an environment where everyone thrives
- Conversations in planning this project fueled productive and meaningful engagement – thus, generating exceptional outcomes

- To demonstrate the effectiveness of the AI model in fueling engagement, positive change, and self-efficacy while implementing interventions to help control patient's blood pressure
- Improving care quality, efficiency, and the health of the community by achieving better outcomes

- Controlling High Blood Pressure quality metric for Centro de Salud was at 77.6%, threshold is 78.6%
- To improve the Controlling High Blood Pressure metric 1% each month, to 81.6%, within a 3-month period

Percentage of the population aged 65 and over in the EU

Date	Percentage (%)
Apr 2 2019	77.6%
Oct 2 2019	82.9%
Nov 2 2019	83.2%
Dec 1 2019	83.4%
Dec 31 2019	83.7%
Jan 1 2020	84.1%
Jan 10 2020	84.3%
Jan 20 2020	84.1%
Jan 30 2020	83%
Jan 20 2021	84%



Panel	Risk Score
ALL PATIENTS	8.00%
ALL PATIENTS (C + D)	6.17%
ALL PATIENTS (B + D)	5.00%
ALL PATIENTS (C)	3.00%
ALL PATIENTS (D)	3.50%
ALL PATIENTS (B)	3.00%
ALL PATIENTS (A + B)	2.00%
ALL PATIENTS (A + C)	2.50%
ALL PATIENTS (A + D)	1.00%
ALL PATIENTS (A)	1.00%
ALL PATIENTS (B + C)	1.00%
ALL PATIENTS (B + D)	1.00%
ALL PATIENTS (C + D)	1.00%
ALL PATIENTS (A + B + C)	1.00%
ALL PATIENTS (A + B + D)	1.00%

Centro de Salud with the highest risk patient panel across LWHF and WHPC.

- The staff and providers at CDS utilize the theory of Appreciative Inquiry to fuel engagement in closing care gaps.
- The 5-D Cycle of Appreciative Inquiry was incorporated into each intervention throughout the entire project: Discovery (appreciate what is), Dream (Imagine what might be), Design (determine what should be), Destiny (create what will be), and a positive core.
- The PCDA cycle (Plan, Do, Check, Act) was the method used for continual improvement throughout the project:
 - Plan for initial interventions developed from reviewing baseline data
 - Plan for adjustments developed from reviewing post-intervention data
 - Plan for further adjustments developed from reviewing post-adjustment data
- Clinical staff were re-educated on proper blood pressure measurement, conducted blood pressure checks for patients whose blood pressure was close to goal, scheduled provider appointments for high risk patients, and engaged in running their weekly reports to identify patients whose blood pressure was still not at goal.

- In 3 months, the Controlling High Blood Pressure metric surpassed the project end goal, rising 6.4% to 84%

- Utilizing the AI framework model for this project led to over-achieving the end goal of improving the blood pressure of a vulnerable Hispanic community
- Outcomes demonstrated that AI increases positive emotions and builds the capacity of the staff to promote health behavior change and improve the health and well-being of the most vulnerable patient population.
- The interventions helped the staff sustain a healthy family-oriented culture that embraced change management and inspired ideas and results in a cooperative ability.
- Our experience suggests that using the Appreciative Inquiry framework model may result in improved quality outcomes in ethnic minorities and vulnerable populations.
- This strategy is basic, simple and reproducible.
- Future research is required to address how Appreciative Inquiry impacts the quadruple aim regarding cost savings for a high-risk patient population with social determinants of health.

Van Wyk, S. (2015). Change management: Making use of appreciative inquiry. *Professional Nursing Today*, 19(4), 20-23.

Rocha-Goldberg, M., Corsino, L., Batch, B., Voils, C. I., Thorpe, C. T., Bosworth, H. B., & Svetkey, L. P. (2010). Hypertension Improvement Project (HIP) Latino: results of a pilot study of lifestyle intervention for lowering blood pressure in Latino adults. *Ethnicity & health*, 15(3), 269-282. <https://doi.org/10.1080/1355785103674997>

Understanding Hispanic/Latino participation in clinical trials and observational studies in the United States, and strategies to increase participation: A targeted literature review

Leticia Ferri¹, Lorena Kuri¹, Mauricio Ferri¹, Brian Dreyfus¹, Patricia Doykos¹, Antonia Andonova², Kimberly Hofer², Mir Sohail Fazeli²

¹Bristol-Myers Squibb, Princeton, NJ, USA; ²Evidinno Outcomes Research Inc., Vancouver, Canada

References

1. Mohr A, Riley B, Schmeizer B, Royston DR, Kripalani S. Improving medication understanding among Latinos through illustrated medication lists. *The American journal of managed care*. 2014;20(12):e457-e555.
2. Fernandez A, Quan J, Moflet H, Parker MM, Schillinger D, Karter AJ. Adherence to newly prescribed diabetes medications among Insured Latino and White patients with diabetes. *JAMA intern Med*. 2015;175(3):371-379.
3. Langford A, Stotts JL, Byrne MM. Improving knowledge and decision readiness to participate in cancer clinical trials: Effects of a plain language decision aid for minority cancer survivors. *Patient Educ Couns*. 2020;77:107-117.
4. Lanier V, Campo A, Laviano C, Tossaint A, Gwada M, Gullano-Ramirez V. Methodological strategies to engage young black and Latino heterosexual couples in sexual and reproductive health research. *BMC health services research*. 2020;20(1):275.
5. Naito A, DeLeon R, Cubillos F, et al. Development and Impact of the Hispanic Parkinson's Advisory Council on the education and recruitment of the Hispanic PD population in clinical research. *Movement Disorders Clinical Practice*. 2020;7 (Supplement 1):S38.
6. Perrio T, Estrada Y, Huang S, et al. Predictors of Participation in an eliteath, Family-Based Preventive Intervention for Hispanic Youth. *Prevention science : the official journal of the Society for Prevention Research*. 2018;19(5):630-641.
7. Melano PR, Dominguez DC, Grady C, et al. Conducting HIV Research in Racial and Ethnic Minority Communities: Building a Successful Interdisciplinary Research Team. *Journal of the Association of Nurses in AIDS Care*. 2011;22(3):388-396.
8. Sadler GR, Gonzalez J, Munman M, et al. Adapting a program to Inform African American and Hispanic American women about cancer clinical trials. *J Cancer Educ*. 2010;25(2):142-145.
9. Sanisloan N, Rasmberg L, Uebelode DS, et al. A Dedicated Spanish Language Line Increases Enrollment of Hispanics Into Prehospital Clinical Research. *Stroke*. 2017;48(5):1389-1391.
10. Tenet RK, Breitkopf CB, De Roche AM, et al. Parents' attitudes toward adolescent participation in a hypothetical clinical trial: Changes over one year. *Journal of Adolescent Health*. 2018;62(2):Supplement 1:S55.
11. Wexner D, McEwen MM, Heyworth JT, Stump CS. Challenges and success of recruiting and retention for a culturally tailored diabetes prevention program for adults of Mexican descent. *Diabetes Educ*. 2013;39(2):222-230.
12. Kruger L, Chavez T, Jones V, et al. Challenging the homogeneity of clinical trials to include women of diverse races/ethnicities. *Annals of Surgical Oncology*. 2018;29(1 Supplement 1):S43.
13. Fernandez A, Quan J, Moflet H, Parker MM, Schillinger D, Karter AJ. Adherence to Newly Prescribed Diabetes Medications Among Insured Latino and White Patients With Diabetes. *JAMA Internal Medicine*. 2017;177(3):371-379.
14. Barera AZ, Kellner AK, Hanez RP. Keywords to recruit Spanish- and English-speaking participants: evidence from an online postpartum depression randomized controlled trial. *Journal of medical internet research*. 2014;16(1):e6.
15. Carlson M, Jackson J, Mandel D, et al. Predictors of retention among African American and Hispanic older adult research participants in the well elderly 2 randomized controlled trial. *Journal of Applied Gerontology*. 2014;43(3):357-382.
16. Chabela P, Munoz E, Gallon KJ, Kulkarni V, Ramirez AG. Empowering Latina breast cancer patients to make informed decisions about clinical trials: A pilot study. *Translational Behavioral Medicine*. 2018;8(3):439-449.
17. Cunningham-Evans J, Barajas C, Mayo-Gamble TL, et al. Formative research to design a culturally-appropriate cancer clinical trial education program to increase participation of African American and Latino communities. *BMC Public Health*. 2020;20(1):845.
18. Evans KR, Lewis RJ, Hudson SK. The role of health literacy on African American and Hispanic/Latino perspectives on cancer clinical trials. *Journal of cancer education : the official journal of the American Association for Cancer Education*. 2017;27(2):299-308.
19. Herrera L, Markle SL, Fuluda M, et al. Predictors of Research-Asessment Completion in a Latino Sample with Dual Disorders. *J Immigr Minor Health*. 2020;28:28.
20. Hignett RT, Craddock Lee SJ, Leonard T, Caste EL, Cole J, Pruitt SL. Multiple Comorbidities and Interest in Research Participation Among Clients of a Nonprofit Food Distribution Site. *Clinical and Translational Science*. 2015;8(5):564-590.
21. Martin A, Negron R, Balbierz A, Bickel N, Howell EA. Recruitment of black and Latina women to a randomized controlled trial. *J Health Care Poor Underserved*. 2013;24(3):1102-1114.
22. Matsuda Y, Martinez M, Beeber LS. Caring as a Facilitator of Sensitive Research Studies with Immigrant Latino Families. *Int J Hum Carng*. 2017;21(1):26-31.
23. Osawa K, Wenzel L, Dogan A, et al. Recruitment and retention results for a population-based cervical cancer biobehavioral clinical trial. *Gynecologic Oncology*. 2015;121(2):558-564.
24. Patel SH, Staples JN, Garcia C, Chaffield L, Ferris JS, Duka L. Are ethnic and racial minority women less likely to participate in clinical trials? *Gynecologic Oncology*. 2020;157(2):323-328.
25. Perales-Pachatz J, Shaw A, McGee JL, et al. Preliminary Efficacy of a Recruitment/Educational Strategy on Alzheimer's Disease Knowledge, Research Participation Attitudes, and Enrollment Among Hispanics. *Hsp Health Care Int*. 2019;15:46(3):19892238.
26. Cruz TH, Davis SA, FitzGerald CA, Canava GF, Keane PC. Engagement, recruitment, and retention in a trans-community, randomized controlled trial for the prevention of obesity in rural American Indian and Hispanic children. *The Journal of primary prevention*. 2014;35(3):135-149.
27. De La Rosa M, Balino R, Rosaria A, Martinez WJ, Aljor L. Challenges and strategies in recruiting, interviewing, and retaining recent Latino immigrants in substance abuse and HIV epidemiologic studies. *The American journal on addictions*. 2012;21(1):11-22.
28. Perrio T, Estrada Y, Huang S, et al. Predictors of Participation in an eliteath, Family-Based Preventive Intervention for Hispanic Youth. *Prevention Science*. 2018;19(5):630-641.
29. Toledo L, McCallan-Lemal E, Armola S, Campbell C, Sutton M. African-American and Hispanic perceptions of HIV vaccine clinical research: a qualitative study. *Am J Health Promot*. 2014;29(2):e82-90.
30. Barrios-Sanchez JZ, Meyers R, Canales C, Ortiz-Jensen C. The Influence of Cultural Variables on Treatment Retention and Engagement in a Sample of Mexican American Adolescent Males with Substance Use Disorders. *Psychology of Addictive Behaviors*. 2015;29(4):969-977.
31. Calva A, Matthew RA, Orpinas P. Overcoming Barriers: Practical Strategies to Assess Latinos Living in Low-Income Communities. *Health promotion practice*. 2019;15(4):991983795.
32. Lora CO, Ricardo AC, Becklin CS, et al. Recruitment of Hispanics into an observational study of chronic kidney disease: The Hispanic Chronic Renal Insufficiency Cohort Study experience. *Contemporary Clinical Trials*. 2012;33(6):1238-1244.
33. Rangel ML, Heredia NL, Reintger B, McNeill L, Fernandez ME. Educating Hispanics About Clinical Trials and Biobanking. *Journal of Cancer Education*. 2019;34(6):1112-1119.
34. Rangel ML, Benitez A, Fernandez Pheors P, Gao Y, Baig AA. Factors Impacting Adherence to Diabetes Medication Among Urban, Low Income Mexican-Americans with Diabetes. *J Immigr Minor Health*. 2019;21(6):1334-1341.
35. Landon L, Hurtado-de-Nerada A, Song M, Nigamindaga A, Lora G, Sheppard VB. Motivators and barriers to Latino/a participation in clinical trials: the role of contextual factors. *Contemporary Clinical Trials*. 2019;82:74-88.
36. Blanche A, Gwada MW, Perlman D, De Guzman R, Leonard NR, Chelana CA. Eliminating Racial/Ethnic Disparities in AIDS Clinical Trials in the United States: A Qualitative Exploration of an Effective Social-Behavioral Intervention. *J*. 2017;8(1).
37. Dohkin ND, Anandharaj H, Kogel C, et al. Innovative Recruitment Strategies to Increase Diversity of Participation in Parkinson's Disease Research: The Fox Insight Cohort Experience. *Journal of Parkinson's Disease*. 2020;10(2):663-675.
38. Simon MA, de la Riva EE, Bergen R, et al. Improving diversity in cancer research trials: the story of the Cancer Disparities Research Network. *J Cancer Educ*. 2014;29(2):204-214.
39. Rangel DE, Valdez CR. A Culturally Sensitive Approach to Large-Scale Prevention Studies: A Case Study of a Randomized Controlled Trial With Low-Income Latino Communities. *The Journal of primary prevention*. 2017;38(6):627-640.
40. Garlin D, Luca D, Hodgeson KC, Pothier LM, et al. Minorities in Parkinson's Disease Clinical Trials: A comparative assessment of recruitment strategies and enrollment in STEADY PD III and SURE PD3 trials. *Movement Disorders*. 2019;34 (Supplement 1):S15.
41. Wolf R, Tsal R, Saunders T, Weiner BJ. Establishing a minority-based community clinical oncology program: the University of Medicine and Dentistry of New Jersey, New Jersey Medical School-Surgury Hospital Cancer Center experience. *J Oncol Pract*. 2015;9(2):e45-54.
42. Martin A, Negron R, Balbierz A, Bickel N, Howell EA. Recruitment of black and Latina women to a randomized controlled trial. *Journal of Health Care for the Poor and Underserved*. 2013;24(3):1102-1114.
43. Strom C, Weaver KE, Ruiz J, Whitefield WM. Hispanic patient navigation: An intervention to increase clinical trial participation. *Cancer Epidemiology Biomarkers and Prevention Conference: 10th AACR Conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved United States*. 2018;27(7 Supplement).
44. Achting R, Rosales M, Fernandez A. Exploring the influence of demographic and medical characteristics of African-American and Latino/a enrollment in a behavioral intervention study for breast cancer survivors. *Quality of life research : an international journal of quality of life aspects of treatment, care and rehabilitation*. 2015;24(2):445-454.
45. Peto D, Sadler GR, Nyuku O, et al. Adaptation of a Cancer Clinical Trials Education Program for African American and Latino/a Community Members. *Health education & behavior : the official publication of the Society for Public Health Education*. 2016;43(4):381-388.
46. Rangel ML, Heredia NL, Reintger B, McNeill L, Fernandez ME. Educating Hispanics About Clinical Trials and Biobanking. *Journal of cancer education : the official journal of the American Association for Cancer Education*. 2019;34(6):1112-1119.
47. Langford A, Stotts JL, Byrne MM. Improving knowledge and decision readiness to participate in cancer clinical trials: Effects of a plain language decision aid for minority cancer survivors. *Patient Education and Counseling*. 2020.
48. Skinner ZS, Fair AK, Helman AS, Boyer AP, Wilkins CR. The Impact of an Educational Video on Clinical Trial Enrollment and Knowledge in Ethnic Minorities: A Randomized Control Trial. *Front*. 2019;7:104.
49. Sadler GR, Gonzalez J, Munman M, et al. Adapting a Program to Inform African American and Hispanic American Women About Cancer Clinical Trials. *Journal of Cancer Education*. 2010;1-4.
50. Quinn GR, McIntyre J, Gonzalez LE, Antonia TM, Antoline P, Wells KJ. Improving awareness of cancer clinical trials among Hispanic patients and families: audience segmentation decisions for a media intervention. *J Health Commun*. 2013;18(9):1131-1147.
51. Wells KJ, McIntyre J, Gonzalez LE, et al. Feasibility trial of a Spanish-language multimedia educational intervention. *Clin*. 2013;10(5):767-774.
52. Trevino M, Pedraza S, Karsaka A, et al. The Development of a Minority Recruitment Plan for Cancer Clinical Trials. *J Community Med Health Educ*. 2013;3(3):100-109.
53. Martin MA, Sadler SA, Olmstead T, et al. Recruitment of Mexican American adults for an intensive diabetes intervention trial. *Ethnicity and Disease*. 2011;21(1):7-12.
54. Hernandez M, Franco R, Kopolowicz A, et al. Lessons Learned in Clinical Research Recruitment of Immigrants and Minority Group Members with First-Episode Psychosis. *Journal of immigrant and minority health*. 2019;21(1):123-128.
55. Allinger RL, Martyn D, Lasa H, Lima Garcia N. The effect of a cultural intervention on adherence to latent tuberculosis infection therapy in latino immigrants. *Public Health Nursing*. 2010;27(2):15-20.
56. Herrera L, Markle SL, Fuluda M, et al. Predictors of Research Assessment Completion in a Latino Sample with Dual Disorders. *Journal of Immigrant and minority health*. 2020;28.
57. Chang TE, Brill CD, Traeger L, et al. Association of Race, Ethnicity and Language with Participation in Mental Health Research Among Adult Patients in Primary Care. *Journal of immigrant and minority health*. 2015;17(6):1660-1668.
58. Brown SD, Partee PH, Feng J, et al. Outreach to diversify clinical trial participation: A randomized recruitment study. *Clin*. 2015;12(3):205-211.
59. Brown SD, Cawley JE, Jones TS, Langford A, Gammage C, Jacobs TL. Adolescent knowledge and attitudes related to clinical trials. *Clin*. 2015;12(3):212-214.
60. Ford ME, Smith LA, Pickett E, et al. Unequal burden of disease, unequal participation in clinical trials: Solutions from African American and Latino community members. *Health and Social Work*. 2013;38(1):29-38.
61. Kuri A, Senier L, Jacoby JL, et al. Racial Differences Among Factors Associated with Participation in Clinical Research Trials. *J Racial Ethn Health Disparities*. 2016;08:08.
62. Oca A, Morgan SE, Potter JE. Underrepresentation of Hispanics and Other Minorities in Clinical Trials: Recruiters' Perspectives. *Journal of racial and ethnic health disparities*. 2018;5(3):322-332.
63. Rivera-Galva MI, Dominguez DC, Stoll P, Grady C, Ramon C, Mear JH. Exploring Decision-Making of HIV-Infected Hispanics and African Americans Participating in Clinical Trials. *Journal of the Association of Nurses in AIDS Care*. 2011;22(4):295-306.
64. Toledo L, McCallan-Lemal E, Armola S, Campbell C, Sutton M. African-American and Hispanic perceptions of HIV vaccine clinical research: a qualitative study. *American journal of health promotion : AJHP*. 2014;29(2):e82-e90.
65. Rabin S, Shea S, LaRusa P, Stockwell M. Factors associated with willingness to participate in a vaccine clinical trial among elderly Hispanic patients. *Contemporary Clinical Trials Communications*. 2017;7:122-125.
66. Byrne MM, Nannenbaum SL, Gluck S, Hurley J, Antoni M. Participation in cancer clinical trials: why are patients not participating? Medical decision making : an international journal of the Society for Medical Decision Making. 2014;34(1):116-126.
67. Langford A, Resnicow K, An L. Clinical trial awareness among racial/ethnic minorities in HNHS 2007: sociodemographic, attitudinal, and knowledge correlates. *J Health Commun*. 2010;15 Suppl 3:92-101.

Utilization of Interpreter Services on a General Medicine Ward Service: A Multi-Modal, Iterative, Quality Improvement Project

Alberto Ortega, BS¹; Justine Ko, MD, MPH²; Semi Han, MD²; Lianne Ho, MD, MBA²; Leslie Martinez, MSN-ED, RN³; and Andrew Young, DO^{1,3}

Keck School of Medicine of the University of Southern California, Los Angeles, CA¹
Internal Medicine Residency Program, Department of Medicine, LAC+USC Medical Center²
Language Services Department, LAC+USC Medical Center³

Background

- 54% of Los Angeles County residents do not speak English as their primary language
- During the 2016-2017 fiscal year, 41.2% of patients at LAC+USC Medical Center identified Spanish as their preferred language
- Federal law mandates availability and use of interpreter services (IS) for all patients
- Multiple studies demonstrate a correlation between interpreter use and positive health outcomes

Introduction

- <50% of Internal Medicine (IM) house staff utilize IS during encounters with patients with limited English proficiency (LEP)
- <10% of survey respondents report fluency in another language

Objectives

1. Raise awareness on availability and importance of IS
2. Identify barriers to utilizing IS
3. Develop an intervention to increase the use of IS

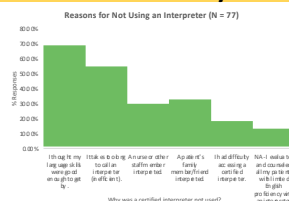
Methodology

1. Didactic lecture during PGY-1 orientation
2. "Badge buddies", laminated cards with interpreter service information
3. Interpreter contact information placed beside workstation phones
4. IM interns surveyed
5. IM interns audited
6. Patient Family Advisory Council interviewed

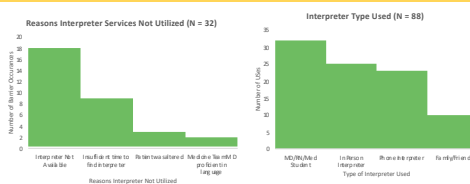
Results

Identifying Barriers to Interpreter Use

Provider Surveys



Nurse Care Coordinator Audits



- 13% consistently use IS
- 68% felt their skills were sufficient
- 54.5% cited inefficiency
- 52% of interpreters were in-person or telephonic
- Interpreter availability and time required to set up IS were recorded as major barriers

Patient Family Advisory Council

- Comprised of a group of patients, families, and care providers
- Meet monthly to gain community perspectives and input on quality improvement projects

Key Finding: Patients often feel a sense of "shame" and "embarrassment" when requesting IS

Intervention: Assign Interpreters to IM Wards Teams

Goal: Reduce barriers to IS utilization by improving efficiencies and de-stigmatizing IS use for patients with LEP

Intervention: Assign an in-person Spanish interpreter to each inpatient wards service with an "opt-out" option

Measurement: Increase in overall interpreter use

Conclusion

- Education alone is not sufficient to increase use of IS
- Improvements in logistical setup and one's perception of their own fluency may lead to better utilization of interpreter services
- The Patient Family Advisory Council provided an innovative opportunity for real patients and community members to make valuable contributions to the project, and should be considered in future quality improvement efforts

Future Directions

- Assess patient experience of increased access to IS
- Encourage attending physicians to model IS usage to increase compliance by resident physicians

References

- Flores. The impact of medical interpreter services on the quality of healthcare: a systematic review. Med Care Res Rev. 2005;62(3): 255-99.
- Karliner, Jacobs, Chen, Mutha. Do professional interpreters improve clinical care for patients with limited English proficiency? A systematic review of the literature. Health Serv Res. 2007 Apr;42(2): 727-54.



Purpose

Latinos will comprise about 30% of the United States population by the year 2060. Hispanic women have a higher baseline risk for developing pelvic floor disorders. Barriers such as poor health literacy and limited understanding of female anatomy may lead to lack of knowledge regarding pelvic floor disorders in Hispanic women. Lack of knowledge in women with pelvic floor disorders is still the most commonly reported reason for not seeking medical attention. Currently, no validated questionnaires exist that evaluate the knowledge of pelvic floor disorders in Spanish-speaking women. The objective of this study was to validate a Spanish version of the Prolapse and Incontinence Knowledge Questionnaire (PIKQ).

Methodology

- Validation and reliability testing of the Spanish version of the PIKQ was conducted in two phases.
- In the first phase, a translation-back translation method was utilized to generate a final Spanish translation of the PIKQ.
- 3 bilingual researchers independently developed 3 Spanish translated versions of the PIKQ. 3 additional bilingual researchers then independently back translated these 3 Spanish versions into English.
- The newly created English versions were then compared to the original PIKQ by 7 separate investigators.
- Each English back-translated item was compared to the original English PIKQ item on a 7-point Likert scale evaluating the comparability of language and the similarity of interpretation.
- The final Spanish version of the PIKQ was the version that corresponded to the best rated back-translated English version.
- In the second phase, bilingual women randomized to complete the Spanish or English version of the questionnaire first, followed by the alternate language version.
- Agreement between individual survey items from the PIKQ English and Spanish versions was assessed by percent agreement and kappa statistics.
- Intraclass correlation coefficients (ICCs) compared the overall PIKQ score and POP and UI subscores.
- To establish test-retest reliability, we re-administered the Spanish PIKQ 1-2 weeks later and calculated Pearson's correlation coefficients.
- In order to have a precision of 10% for 90% agreement, so that the lower 95% confidence interval would not be less than 80% agreement, 50 bilingual subjects were required.

Results

Figure 1: Randomization of Bilingual Study Participants

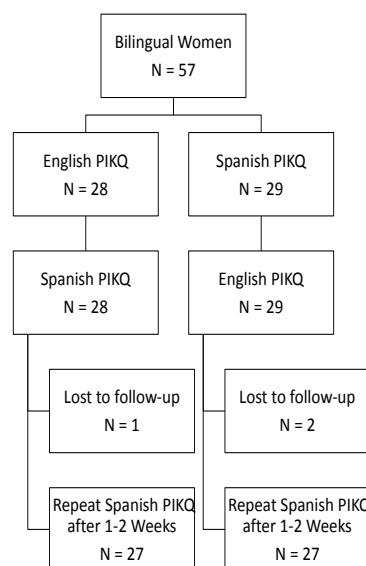


Figure 2: Scatterplots of the Spanish versus English PIKQ scores:
2A) Overall score, Intraclass correlation coefficient $r=0.91$, $p<0.001$

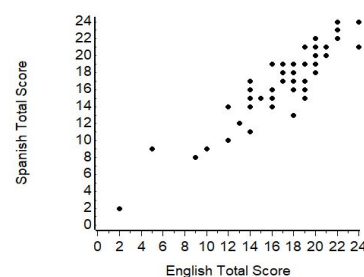
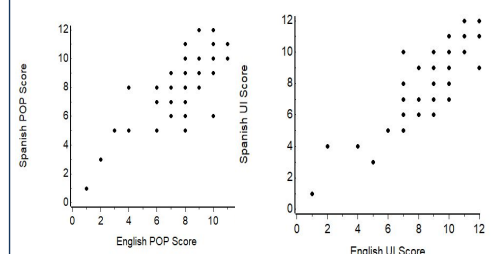


Figure 2: Scatterplots of the Spanish versus English PIKQ scores:
2B) POP subscale score, Intraclass correlation coefficient $r=0.81$, $p<0.001$
2C) UI subscale score, Intraclass correlation coefficient $r=0.88$, $p<0.001$



- 57 bilingual women were randomized and completed all items from the final Spanish and English versions of the PIKQ.
- The mean age was 32 years (SD 9). Women were representative of diverse ethnic backgrounds comprised of 10 Latin American countries, the United States and Spain.
- 42% of these women considered both Spanish and English their primary language. The majority had college-level education (54%)
- Individual items showed 74-97% percent agreement, good to excellent agreement (kappa 0.6-0.89) for 9 items and moderate agreement (kappa 0.4-0.59) for 14 items between English and Spanish PIKQ versions.
- ICCs of the overall PIKQ score and POP and UI subscores showed excellent agreement (ICC 0.81-0.91).
- Pearson's correlation coefficients between initial and repeat Spanish scores were high overall ($r=0.87$) and for POP ($r=0.81$) and UI subscores ($r=0.77$).

Conclusion

A valid and reliable Spanish version of the PIKQ has been developed to assess patient knowledge about urinary incontinence and pelvic organ prolapse in Spanish-speaking women.

Virtual Clinical Training During COVID-19: Evaluating An Online Patient Simulation Curriculum For 2nd Year Medical Students

Vanessa Peña-Garcia BA, Marco Angulo MD, Erick Leyva BA, Roger Liu Ph.D, Anabel Arroyo

AltaMed Institute for Health Equity

Email: AltaMedSummerProgram@AltaMed.org

AltaMed
QUALITY CARE WITHOUT EXCEPTION™



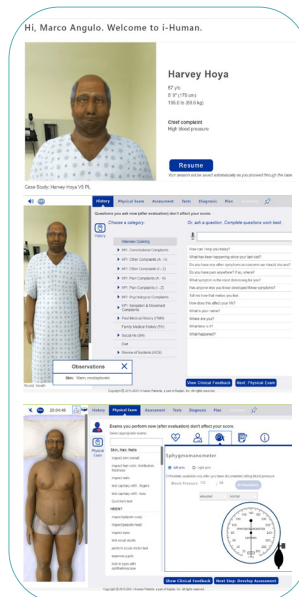
Introduction

The most important part of medical education training comes from experiences gained in direct patient care. The goal of the AltaMed Summer Program Virtual Clinical Experience is to increase the number of primary care physician leaders committed to careers in medically underserved communities. iHuman by Kaplan serves as a substitute for in-person clinical exposure. AltaMed scholars have virtual clinical time embedded into the curriculum using Kaplan's iHuman platform, supplemented by a variety of virtual workshops including presentations on mentoring and motivational interviewing. Through a tiered-mentorship approach, scholars (1) navigate a patient case with a faculty preceptor, (2) review the case with their designated partner (3) teach the case to pre-health scholars with the designated faculty preceptor. The Kaplan iHuman Virtual Patient Simulation aids students in building fundamental clinical competency and judgment skills that include full patient exam components: review, examination, diagnosis, and documentation skills. The diverse patient encounters include avatars that are programmed to behave and respond as naturally as possible.

Methodology

- AltaMed PCLP scholars had 47 hours of virtual clinical time using Kaplan's iHuman platform
- Clinical time was supplemented by a variety of virtual workshops including mentoring and motivational interviewing
- The program emphasized patient-centered communication and social determinants of health screening through a health equity lens
- A tiered-mentorship model was implemented

Kaplan iHuman Online Platform



Source: iHuman Patients, Kaplan, Inc. 2020.

Tiered-Mentorship Model



2020 AltaMed NMF PCLP Scholars Demographics

- 14 medical students
- 7% Asian / Pacific Islander
- 21% African American / Black
- 72% Latino/a
- 100% Committed to medically underserved
- 86% Confident in matching into residency
- 86% Confident in practicing at an FQHC

2020 AltaMed NMF PCLP Scholar Testimonials

- "What I appreciated what AltaMed did was that the PCLPs presented the same clinical case to the HCOPers to improve our teaching skills."
- "I am so impressed at how masterfully orchestrated the last 6 weeks were on an entirely online format. The team did an incredible job that schools are still trying to figure out."
- "We were able to work with... pre-health students, which projected us into an immediate position of leadership. See one, do one, teach one. We were able to apply our leadership training instead of learning leadership skills for future use."

Results

Survey Question	Average Pre Program Score (Max = 5)	Average Post Program Score (Max = 5)	% Increase
Confidence in taking patient histories.	4.57	4.64	2%
I am confident that I know how to demonstrate patient centered communication.	4.29	4.79	12%
Confidence in screening for social determinants of health.	4.14	4.79	16%
Confidence in conveying patient findings in a coherent manner to peers.	3.93	4.57	16%
Confidence in gathering essential and accurate information about patients.	4.21	4.93	17%
Confidence in extrapolating the disease findings of patients.	3.43	4.36	27%
Confidence in developing patient treatment and management plans.	3.21	4.14	29%
Confidence in performing a physical.	3.57	4.71	32%

Table 1. Scholars' confidence in how to take a patient history and physical, screen for social determinants of health, develop patient treatment and management plans, gather essential and accurate patient information, convey patient findings to peers, and how to demonstrate patient-centered communication all increased.

Conclusion

Community health centers have identified medical confidence, ethical behavior, and improved patient-provider relationships as key components to medically underserved patient care. The mission of the AltaMed Summer Program Virtual Clinical component is to develop an optimized learning experience inclusive of the organization of scientific evidence and patient diagnosis, to have scholars eventually be junior faculty themselves as they teach back what they learn. Despite the virtual environment due to COVID-19, scholars clearly demonstrated improved communication, leadership and teaching skills that contribute to their professional toolkit, all while applying evidence-based medicine and working towards eliminating disparities in health care access and outcomes by providing superior quality health and human services.

References
Cendan, Juan, and Benjamin Lok. "The use of virtual patients in medical school curricula." *Advances in physiology education* vol. 36,1 (2012): 48-53. doi:10.1152/advan.00054.2011
Komonowicz AA, Woodham LA, Edelblut S, Stathakou N, Davies D, Saxena N, Tisdor C, L., Carls J, Zary N. "Virtual Patient Simulations in Health Professions Education: Systematic Review and Meta-Analysis by the Digital Health Education Collaboration." *J Med Internet Res* 2019;21(7):e14676. doi:10.2196/14676