# We RISE by LIFTING OTHERS. -Robert Ingersoll

# Family Medicine Rising: Leading in a time of crisis

# Jack Rodnick Colloquium

Golden Gate Club, San Francisco

May 31, 2018



### JACK RODNICK MEMORIAL FUND

Dr. Jonathan (Jack) Rodnick served as Chair of the UCSF
Department of Family & Community Medicine from 1989 to 2003
and was a vital member of our faculty until his passing in
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Jack dedicated his life to improving medical education and patient care through intellectual inquiry and innovation. With the Rodnick Colloquium and Rodnick Research Grant Program, we invite you to join us in celebrating and continuing Jack's legacy.

For more information, please visit: http://fcm.ucsf.edu/about-us/support-us

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- **5** Event Schedule
- 6 Concurrent Talks Detail
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- 12 Abstracts—Concurrent Talks
- 28 Abstracts—Poster Presentations

### COLLOQUIUM ORGANIZERS

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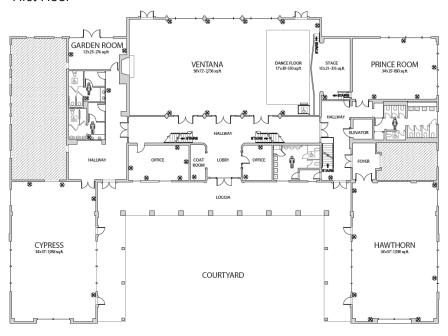
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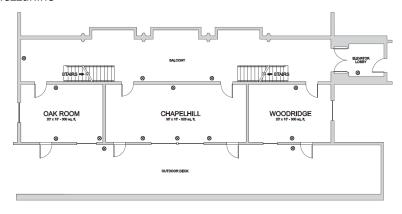
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### First Floor



### Mezzanine



<sup>\*</sup> The Woodridge room is a designated lactation lounge.

# FUTURE FAMILY PHYSICIANS FAMILY MEDICINE MATCHES 2018

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Susan Fang, UCSF
Katrina Koslov, UCLA
Sway Wu, Wayne State
Michael Silva, USC
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### **EVENT SCHEDULE**

11:00 – 11:40	Registration and Lunch	Lobby & Courtyard
11:40 – 11:50	<b>Welcome and Introduction</b> <i>Kevin Grumbach, MD, FCM Department Chair</i>	Ventana Room
11:50 – 1:20	<b>Plenary Session and Panel</b> Moderator: Chris Chirinos, CEPC Program Manager	Ventana Room
	<b>Tara Scott, MD</b> , Program Manager, Santa Rosa Family Medicine Residency Program Assistant Clinical Professor UCSF Department of Family and Community Medicine <b>Omar Medina</b> , Coordinator, Undocufund Santa Rosa	
	Christine Dehlendorf, MD, MAS Associate Professor in Residence Director, Program in Woman-Centered Contraception Departments of Family & Community Medicine, Obstetrics, Gynecology & Reproduc- tive Sciences, and Epidemiology & Biostatistics University of California, San Francisco	
	Matt Symkowick, MD Associate Program Director Kaiser Napa-Solano Family Medicine Residency, Associate Professor, UCSF Dept of Family and Community Medicine Physician In charge, Kaiser Permanente, Vallejo	
	<b>Diana Coffa MD,</b> Director of Family and Commun- gram Associate Clinical Professor, University of Californ	
1:25 – 1:35	FM Education Alliance Award for Excellence in Collaboration Margo Vener, MD, FCM Vice Chair of Education	
1:35-1:45	Move to concurrent session of your choice	
1:45— 2:50	<b>Concurrent Breakout Sessions #1</b> <i>Cypr</i> See concurrent talk listing for specific room assignment	ess, Hawthorn, & Prince Rooms ents Pg. 6
2:55 – 3:50	<b>Poster Viewing Session</b> See poster listing for more specific room/area assign	r, Hawthorn, & Ventana Rooms nments
3:55 – 5:00	<b>Concurrent Breakout Sessions #2</b> Cypre See concurrent talk listing for specific room assignm	ess, Hawthorn, & Prince Rooms ents Pg. 7
5:00 - 5:10	Break	
5:15 - 5:45	Closing Remarks Kevin Grumbach, MD	Ventana Room
6:00 – 6:45	Wine and Cheese Reception	Lobby & Ventana Room

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### CONCURRENT TALKS: Session 1

### MEETING PATIENTS WHERE THEY'RE AT, COMMUNITY ENGAGEMENT

**HAWTHORN ROOM** 

Moderator: Chantal Lunderville, MD

Grateful patients and providers: interdisciplinary buprenorphine group medical visits expand over 10 years in response to a deadly opioid epidemic.

Saffier, K.\*, Blaschak, P., Brooks, N., Chan, L., Moskin, A., Pinto, N., Rodelo, L.

Abstract: p. 13

Evaluating the impact of residency-driven high school pre-participation health screenings.

Zaro, C; Namihas, B; Irvine, C

Abstract: p. 14

The Cut Hypertension Program (CHP): Training Barbers of African American Barbershops to be Health Coaches.

Taylor, K\*; Smith, M; Senigar, T; Foxx-Drew, D; Lacey, J; Philip, N; Woldeyesus, T; Chirinos, C; Chen, V; Huang, B; Tapia, M

Abstract: p. 14

Encampment-based healthcare: training future leaders in low-barrier street-level care.

Arai, A; Hong, J; Incze, M; Karlin, J; Krauss, K; PeBenito, M\*; Borne, D\*

Abstract: p. 15

### CLINICAL INNOVATIONS IN PATIENT ENGAGEMENT AND CARE PRINCE ROOM

Moderator: Eva Raphael, MD

Diabetes self-management support for patients with type 2 diabetes in community health centers. What are patients' priorities and areas of greatest need?

Bowyer, V\*; Hessler, D; Willis, A; Rouse, J; Fisher, L; Potter, M. Abstract; p. 17

Patient engagement bright spots in diverse settings across the country.

Huang, B\*; Sharma, A; Willard-Grace, R; Grumbach, K

Abstract: p. 18

Resilience and recovery: the role of telemedicine in primary care access and physician wellbeing after disasters.

Friedman,R\*; Schieberl, J; Joseph, M; Hiserote, P

Abstract: p. 18

Improving patient care experience on the Zuckerberg San Francisco General Hospital Family Medicine Inpatient Service through designing and implementing a hospital knowledge handout for patients.

Protsenko, E\*; Tsai, N\*; Velazquez, A\*; Consunji, M; Lee, J; Kern, C; Mo, M; Smith, B; Wortis, N; Chase, J

### CURRICULAR ADVANCEMENTS IN FAMILY MEDICINE EDUCATION CYPRESS ROOM

Moderator: Tom McBride, MD

What's keeping family medicine residents in the hospital? A qualitative study of factors influencing inpatient and outpatient residency training.

Lipinsky DeGette, R\*; Willard-Grace, R; Knox, M; Bodenheimer, T Abstract: p.22

Implementation of a residency half-day educational conference using Kotter's Model of Change.

Wondolowski, L\*; McNeil, S\*; Ferguson, N; Hartung, C; Patberg, J Abstract: p. 22

Resident and preceptor attitudes about providing physician aid-in-dying under the California end of life options act.

Pulvers, E\*; Tirado, S; Perez-Lopez, M Abstract: p.23

**Building Clinic First from Scratch.** 

Jeremy Fish, MD\* Abstract: p. 23

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Keith Jackson, MSPAS/MPH Candidate<sup>1</sup>; Juleon Rabbani, DrPH, MPH<sup>2</sup>; Matthew Symkowick, MD<sup>2</sup> Demographic and Clinical Factors Associated with Emergency Department Visits Among Kaiser Permanente Napa-Solano Medi-Cal Patients

Context & Objective: From 2007-2017, the number of Medi-Cal (or Medicaid at the federal level) patients in California (CA) has increased from 6.5 M to 13.5 M due to the increased CA population, the Affordable Care Act, and CA's Health for All Children Act. Previous research indicates that adult Medicaid patients utilize health services more often than private pay insurance patients. Since Medi-Cal reimbursement to providers may only cover a portion of health care costs, caring for Medi-Cal patients can be a significant financial expense for health systems. To better understand health services utilization among our Medi-Cal patients in the Kaiser Permanente (KP) Napa-Solano service area (NSA), we investigated which patient demographic and clinical factors led to increased emergency department (ED) utilization.

**Setting/Population:** Through electronic database extraction, descriptive statistics and multivariate linear regression modeling, we examined 36,273 Medi-Cal patient records.

**Intervention/Study Design:** Clinical morbidities such as mental health, heart failure, asthma, hypertension and diabetes were among the greatest predictors of increased ED visits after holding all other demographic and clinical factors constant.

**Outcomes/Results:** We found that older children and adults went to the ED less often than infants. Obese patients visited the ED more than normal weight patients. African American, Hispanic and multiracial patients also visited the ED more often than White patients.

**Conclusion:** Our final model indicated a dose-response relationship between smoking status and number of ED visits: patients who never smoked were less likely to visit the ED compared to those who formerly smoked, were exposed to passive smoke or were current smokers. Our findings will help KP employees provide targeted outreach to Medi-Cal patient sub-groups most at risk for increased ED utilization and inform further research examining why these groups have higher utilization rates than others.

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**Conclusions:** Patients need to be well informed to make the best educated decisions. Our hope is that field working women will advocate for themselves to be able to work effectively and exclusively with the support from agricultural companies, community agencies and the men and women in our community.

Nicholas Alonzo, Pharm.D/MPH Candidate<sup>1</sup>; Juleon Rabbani, DrPH, MPH<sup>2</sup>; Ruben Gonzalez, MD<sup>2</sup> Demographic and Clinical Factors Influencing HgbA1C Goal Attainment Among Kaiser Permanente Napa-Solano Diabetic Patients

Context & Objective: Almost 10% of the U.S. population had either type I or type II diabetes in 2015. Research indicates that there is a higher prevalence of diabetes within non-Hispanic Blacks, non-Hispanic Asians, and Hispanics compared to non-Hispanic Whites. To understand whether we had similar trends among our diverse patient population in the Kaiser Permanente Napa-Solano service area, we examined demographic and clinical factors influencing HgbA1C level goal attainment (<8% vs. ≥8% and <9% vs. ≥9%) among our diabetic patients.

**Setting/Population:** Through electronic database extraction, descriptive statistics and multivariate logistic regression modeling, we examined data from 19,394 patients. Hispanics (any race) and non -Hispanic Blacks were less likely to meet HgbA1C goals than non-Hispanic Whites, after controlling for several demographic and clinical factors.

Intervention/Study Design: Having more PCP phone visits, more primary care physician (PCP) no shows and more Pharmacist phone or office visits were also associated with not meeting HgbA1C goals. Being older, having a higher body mass index (BMI), having more PCP office visits, having Medicare insurance and receiving care at the Napa or Vacaville facilities were associated with meeting HgbA1C goal in both models.

**Outcomes/Results:** Age and Hispanic status confounded the relationships between hypertension status and language, respectfully, with meeting HgbA1c goals. Our findings will inform health promotion and outreach efforts within our diverse diabetic patient population.

**Conclusions:** We aim to investigate additional factors that may affect or confound HgbA1c goal attainment, such as socioeconomic status, immigration/acculturation status, physical activity, psychosocial factors and other comorbidities.

# Claire Greene, Jacob Stultz, Colleen Carlston, Sara Galewyrick Increasing Flu Vaccination Rates at UCSF Lakeshore

**Context and Objective:** Flu vaccination has been demonstrated to reduce the incidence of influenza-related illnesses and associated hospitalizations, but despite this evidence the percentage of the population receiving the annual flu vaccine has remained unchanged on a national level for the past several years. According to the CDC over the last seven flu seasons flu vaccination coverage has remained more or less constant, with coverage ranging from an average of 41.8% to an average of 47.1% across the 2010-11 and 2016-17 seasons (CDC). UCSF Family Medicine at Lakeshore has recently fallen short of the national average for flu vaccination coverage of the empaneled patients, reaching a coverage of 37.2% in the 2016-17 season. Our team wanted to better understand patient perspectives regarding flu vaccinations, and to improve rates of flu vaccination.

**Setting/Populations:** Our research and outreach was performed at UCSF Family Medicine at Lakeshore.

**Intervention/Study Design:** We had four measures: 1) To interview patients receiving flu vaccinations 2) to interview patients who had inconsistently received flu vaccinations in the past 3) to use the EHR to improve flu vaccine awareness 4) to increase rates of flu vaccination by having a studentrun flu clinic.

**Outcomes/Results:** We learned from our patient population that a variety of communication methods were appreciated for flu reminders, but that a major barrier was the timing and availability of flu clinics. We also identified that many of the patients who had inconsistently received flu vaccines in our clinic in the past had received vaccinations at local pharmacies and had not shared this information with their providers. Overall, our clinic's flu vaccination rate improved from 37.2% last season to 48.1% this season (as of February 2018).

**Conclusions:** Flu vaccination rates can improve with better outreach and in reach, as well as increased availability of clinics. There is also evidence of a documentation gap, where patients are receiving vaccines that are not captured in our EHR.

### CONCURRENT TALKS: Session 2

### ENHANCING EQUITY THROUGH WORKFORCE DIVERSITY AND PIPELINE PROGRAMS

Moderator: Kenji Taylor, MD CYPRESS ROOM

Imagining a more inclusive medical education and practice: Freedom School for Intersectional Medicine and Health Justice.

Lim. B; \* Carvajal, N; Mays, A; Lewis, L.

Abstract: p. 11

Pipeline to patient-centered care: involving patient advisors in the residency selection process.

Koida, D; Friedman, R\*; Hiserote, P

Abstract: p. 11

FAMILY Health Corps Scholars: How teaching health centers can fill an important equity gap by ensuring diverse pre-medical students access to prestigious clinical experience.

Guidry, D\*; Huerto, R; Woldeyesus, T; Edmunds, M; Leung, L; Tapia, M; Uy-Smith, E Abstract: p. 12

Music and memory: treating dementia through meaningful engagement with high school pipeline students.

Cuervo,  $\dot{C}^*$ ; Dietrich, M; Gomez, T; Kim, A; Mirrer, M; Olivarez, A., Sanchez, A., Tapia, M., Taylor, K.

Abstract: p. 12

### HEALTH DISPARITIES: WHAT DOES THE DATA TELL US?

PRINCE ROOM

Moderator: Jennifer Karlin, MD

Community health center attitudes about social determinants interventions. Fichtenberg, C,\* Wing, H,\*, Bullock, J\*

Abstract: p. 15

Early-life socioeconomic status and late-life disparities in memory and dementia risk among US military veterans and non-veterans.

Vable, A\*; Eng, C; Mayeda, E; Basu, S; Marden, J; Hamad, R; Glymour, M Abstract: p. 15

What is happening to our youth? Trends in emergency department visits from 2005-2014 and hospitalizations from 2003-2014 with a mental health diagnosis in California.

Rienks, J; \* Remy, L; Shatara, A

Abstract: p. 16

Self-identification as an Underrepresented Minority in Medicine (URM) and perceptions of clinic teamwork among primary care clinicians and staff.

Knox M,\* Willard-Grace R, Huang B, Grumbach, K

Abstract: p. 17

### INNOVATIONS IN MEDICAL EDUCATION

**HAWTHORN ROOM** 

Moderator: Tem Woldeyesus, MD

Reaching out to students "on the fence" about career choice: Increasing ambulatory family medicine fourth-year electives.

Golden, G\*; Brode, E; Hill-Sakauri, L; Vener, M

Abstract: p. 20

In our hands year three: a primary care procedure elective teaches students the scope and role of family medicine.

GaleWyrick, S\*; Person-Rennell, N

Abstract: p. 21

**Beyond see one, do one, teach one: Residents videotape their teaching and reflect.**Dietrich, M\*; Krauss, K; McBride, T; Brode, E; Vener, M
Abstract: p. 21

Trial and improvement of clinical instruction between medical students at the UCSF Family Medicine Center at Lakeshore.

Goldfien, G\*, MacKenzie, T

Abstract: p. 21

### POSTER PRESENTATIONS

### **HIV/SEXUALLY TRANSMITTED INFECTIONS**

Cypress Room

A searchable, online global PrEP provider directory and country-specific PrEP resources for consumers and providers: the PleasePrEPMe Global experience

Weber, S\*; Lazar, L; Kilpack, T

Abstract: p. 25

Reaching Californians online with chat-based HIV prevention services: the PleasePrEPMe:Connect experience

Weber, S; McCord, A; O'Neil, R; Oseguera-Bhatnager, Y; Romero, C; Lazar L.

Abstract: p. 25

Rapid HIV testing on labor and delivery should not replace third trimester HIV testing

Mittal, P\*; Pecci, C\*; Chu, C; Pollock, C; Goldhammer, B; Warren, M Abstract: p. 42

Development of MyPrEP, an integrated pre-exposure prophylaxis and contraceptive decision support tool

Wilson, W\*; Seidman, D; Dehlendorf, C

Abstract: p. 45

### **EDUCATION AND TRAINING**

CYPRESS ROOM

WhatsApp with ankyloglossia? novel use of communication technology to increase resident experience with frenotomies

Le Marchand, C \*; Flaxman, G

Abstract: p. 33

The times they are a changing: Precepting in the block versus longitudinal clerkship model

Tapley,  $A^*$ ; Brode, E; Johnston, R; Vener, M

Abstract: p. 35

An "invaluable skill": reflections on abortion training and post-residency practice  $Nothnagle, M^*$ ; Greenberg, S.

Abstract: p. 36

Behavioral medicine / medical hypnosis for family medicine residents

Macias, Edward\*

Abstract: p. 43

Consolidating Family Medicine clinic on inpatient rotations to decrease resident stress and improve patient continuity

Ferguson, M\*; Jester, G; Hartung, C; Patberg, J; McNeil, S.

Abstract: p. 27

Pipeline development through scholarly community service

Iten, E\*; Kinnevey, C; Rabbani, J; Stecker, T.

Abstract: p. 30

Family medicine of the future: creating 4th year electives that educate, innovate, and inspire

Friedman, R; Hoff-Arcand, L\*

Abstract: p. 42

### **CLINICAL CARE & ADDICTION MEDICINE**

CYPRESS ROOM

Buprenorphine treatment retention for patients with opioid use disorders who use marijuana and/or methamphetamine.

Saffier, K\*; Diemoz, L; Brooks, N; Chan, L; Rodelo, L

Abstract: p. 41

Reducing the risk of opioid overdose deaths through naloxone prescribing at the Zuckerberg San Francisco General Family Health Center

 $Alexander, S^*; Singh, A^*; Valdez, J^*; Fernandez, L; Wortis, N; Coffa D \quad Abstract: p. \ 36$ 

Point of care ultrasound improves patient care in underserved populations: the Contra Costa experience

Jayasekera, N\*; Bergman, K; Ramos, M; Ferguson, M; Standish, J

Abstract: p. 31

ers, assess insurance, and determine interest. We will escort patients through the neighborhood and to walk them to their respective appointments. Our team will accompany patients to the correct clinical site with the correct requisite paperwork in hand. We seek to become the center of excellence for facilitating disenfranchised populations into a primary care medical home.

**Outcome/Results:** Our expected results are to a) increase successful referrals to primary care, b) Reduce patient isolation and health concerns and c) nurture partnership between existing safety net clinics and our student-led efforts.

Conclusions: We are creating a mechanism to diminish environmental barriers such as fear of deportation, lack of non-traditional hours of operation, and unfamiliarity with the U.S. health care system by positioning community-engaged companions to serve as safety-net liaisons.

### Kong M, Knox M\*, Willard-Grace R, Gupta R, and Bodenheimer T Four factors to promote continuity in residency teaching clinics

**Context & Setting:** There is strong evidence that clinician-patient continuity promotes the quadruple aim of patient experience, population health, reduced costs, and clinician and staff satisfaction. Continuous, healing relationships are the basis of primary care. Yet patients in teaching clinics often experience poor continuity due to sporadic resident and faculty schedules with limited time spent in clinic and continuous cycles of new and graduating residents.

**Setting/Population:** CEPC has conducted site visits at more than 40 family medicine and internal medicine teaching clinics since 2013. Site visits took place across the United States and in a range of practices including rural, community-based sites and large academic medical centers. Intervention/Study Design: A structured site visit guide was developed and semi-structured interviews took place with clinic leadership, providers, trainees, and staff at each site. Observations related to continuity were compiled across sites and reviewed to identify common factors.

**Outcome/Results:** Sites with strong continuity demonstrated at least one of four factors: 1) regularly measuring continuity to identify opportunities to improve; 2) building a culture of continuity among all clinic stakeholders including residents, faculty, clinical staff, schedulers, and patients; 3) scheduling residents well in advance to be in clinic predictably, frequently, and with minimal time away from clinic; 4) providing consistent alternative clinician coverage that can facilitate continuity when residents are unavailable. We identified three sites as case highlights on these factors: University of North Carolina, University of Oklahoma Tulsa, and University of Massachusetts Medical School Baystate.

**Conclusions:** Despite obstacles faced by teaching practices in continuity, we found four factors where clinics can take steps to improve continuity. Understanding these factors may help other teaching practices improve continuity and thereby enhance clinician-patient relationships.

# Ivette Ramos Ortega, MD\* Breastfeeding in a Farmworker Community

**Context & Setting:** Benefits of breastfeeding include multiple medical and economic benefits for entire families. In our area the predominant population delivering at Natividad Medical Center are field working women. Our goal is to promote and support exclusive breastfeeding for 6 months and health promotion in the neonatal period; and to improve infantile health in this population.

**Setting/Population:** The purpose of this project is to explore the practice of breastfeeding among farmworker women in the Salinas Valley and the factors affecting their breastfeeding outcomes.

Intervention/Study Design: An assessment of the needs of the community was conducted via a focus group with the Center for Community Advocacy (CCA) of Salinas and through questionnaires in other settings. We also met with many lactation experts and complied data from Monterey County and USA statistics for breastfeeding. Both national data and local information gathered suggested that the primary environmental and social factors affecting breastfeeding outcomes are due to poor access to health care and lack of early intervention services, poor partner/social support and false information on legal rights of breastfeeding. In our community many misconceptions of maternal workers 'rights exist. Only one agricultural company has implemented the promotion of these rights. It has the highest rates of breastfeeding and retention of women workers. This company also provides and promotes pumping in the fields.

**Outcome/Results:** By eliminating breastfeeding misconceptions in the community, informing patients and supporting advocacy we hope to improve the breastfeeding rates in the community. To reach these objectives we have created a "Dot Phrase" in the electronic medical record to direct medical providers caring for prenatal and postpartum patients to provide breastfeeding information. Also, a pamphlet has been developed in Spanish to help support community outreach. These pamphlets will be distributed to churches, community health aides, school family advisors and health clinics.

vary among the different race-nativity subgroups according to these characteristics, overall and in subsets defined by the characteristics. We use logistic regression to examine the likelihood of PTB among each race-nativity group, unadjusted and then adjusting for the above characteristics.

Outcome/Results: Preliminary analyses show similar PTB rates among Black African immigrant women with singleton births, compared with rates among White women, and intermediate rates among Black Caribbean-born women, in descriptive, unadjusted and adjusted data. We will repeat analyses in final vital statistics files, but we are confident they will not change appreciably.

**Conclusions:** While gene-environment interactions cannot be ruled out, similar PTB rates among African-born Black and U.S.-born White women with intermediate rates among Caribbean-born Black women strongly suggest a major role for the social environment in the racial disparity in PTB.

### Wilson W\*. Seidman D. Dehlendorf C Development of MyPrEP, an integrated pre-exposure prophylaxis and contraceptive decision support tool

Context & Setting: African young women have some of the highest HIV incidence rates globally. Pre-exposure prophylaxis (PrÉP) offers the potential to provide high protection, and is the first individually controlled HIV prevention tool that allows women to independently manage risk. As PrEP becomes increasingly available, strategies are needed to enhance informed decision making, potentially facilitating PrEP initiation and adherence. Capitalizing on women's engagement with the healthcare system for family planning, we sought to develop a patient-centered, integrated HIV prevention and contraceptive decision support tool to provide individuals with information about their options before a clinical encounter.

Setting/Population: Young women, providers and community leaders in Johannesburg and Cape Town, South Africa and Kisumu, Kenya.

Intervention/Study Design: A systematic, iterative process was engaged to develop an integrated tablet -based tool, using the platform of our established contraceptive decision support tool. Feedback was elicited through and incorporated from focus groups, key informant interviews, cognitive tests and piloting.

Outcome/Results: Findings informed the development of the MyPrEP tool, which provides information in non-technical, simple, graphic format, and highlights education on PrEP efficacy, side effects, dosing strategy, and safety in pregnancy and lactation, as well as contraception. Stakeholders showed high levels of support for the content and the electronic, interactive format, and appreciated the health -promoting approach.

Conclusions: A decision-support tool of this kind may effectively address the multi-level influences on women's decisions to initiate and adhere to PrEP. The next phase of our work will be to evaluate the impact of MyPrEP on young women's risk perception and decisional conflict, as well as facilitation of patient-centered counseling. We will also explore the experiences of young women and providers using the tool, and preferences around integrated sexual and reproductive healthcare.

Alvarez, Dora\*, Aboii, Sheyda, Chavarria, Alex, Fernandez, Fabian, Guidera, Jennifer A., Juarez, Maribel, Rodriguez, Nicole, Tapia, Manuel MD MPH Student-Led Clinic patient navigators accompany uninsured, immigrant patients in San Francisco's Mission District to improve show rates at safety net clinics

Context & Setting: The student-led clinic Clínica Martín-Baró (CMB) has provided free, culturally appropriate services to the underserved, often undocumented, population in the Mission District for over a decade. Although patients are cared for thoroughly, there are limits to what a weekly studentclinic provides, resulting in referrals to primary care. Existing referrals to Family Health Center of the San Francisco Health Network have resulted in poor show rates over the past few years. In response, clinic volunteers accompany patients to their appointments in order to mitigate fear and miscommunication that lead to missed appointments.

Setting/Population: Student leaders from the UCSF SOM and San Francisco State University open CMB every Saturday in San Francisco's Mission Neighborhood. CMB serves the community of recent Latinx immigrants residing in the Bay Area.

Intervention/Study Design: After discovering that our patients struggle with language barriers, physical navigation through the hospital, and fear of immigration officials, we decided to take a symbolic stand alongside our patients. Patient accompaniment is an effective method to improve show rates in establishing care. In an Emergency Medicine study in which non-urgent patients were shifted to an adjacent PCP office, those who were "navigated" by staff where significantly more likely to attend another PCP appointment within a year. We have translated this idea to aid in referring patients presenting to CMB to primary care. Non-urgent referrals were assigned case managers to screen for barri-

### Unconscious bias in goals of care conversations: Societal issues and cultural messages

Kripke, C Abstract: p. 41

Health coaching and home monitoring to improve blood pressure control Peterson, S\*: Garcia, J: Hansen, N Abstract: p. 26

Effect of health coaching on inhaler technique: results from a randomized controlled trial of health coaching for urban underserved patients with chronic obstructive pulmonary disease

Chirinos, C\*; Willard-Grace, R; Huang, B; Wolf, J; DeVore, D; Lewis, E; Tsao, S; Hessler, D: Su. G: Thom, D Abstract: p. 38

Randomized controlled trial of health coaching versus usual care for vulnerable patients with chronic obstructive pulmonary disease (COPD)

Thom, D\*; Willard-Grace, R; Su, G; Tsao, S; Chirinos, C; Wolf, J; DeVore, D; Huang, B; Low, DAbstract: p. 29

### REPRODUCTIVE, MATERNAL & CHILD HEALTH

**HAWTHORN ROOM** 

### Group prenatal visits for residency education in family medicine at Natividad **Medical Center**

Kong, A\*; Zaro, C; Goldstein, J

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### Pediatric group well-visit pilot in a Kaiser Permanente Medical Center

Dun, G\*; Šellers, E; Fung-Sakita, S

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### A systematic review of the non-contraceptive side effects and health benefits of the medroxyprogesterone injectable contraceptive method

Dianat, S\*; Reyna, A; Fox, E; Dehlendorf, C

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### Making it in the real world: preparing for implementation of a patient-reported outcome performance measure on contraceptive counseling

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Improving measurement of client experience with contraceptive counseling to ensure quality of care and fulfilment of human rights in Mexico, India, and Ethiopia Holt, K\*; Zavala, I; Quintero, X; Barge, S; Patel, B; Gebrehanna, E; Hessler, D; Langer, AAbstract: p. 37

### Favorable PTB rates among Black African immigrant women

Braveman, P\*; Marchi, K; Heck, K; Rinki, C

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### Trends of attempted home births and out-of-hospital births at Natividad Medical Center 2014-2017

 $Kong, A^*$ ; Goldstein, J; Chandler, P

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### The results of a statewide survey to determine the capacity and needs of regional maternal, child, and adolescent health programs to address issues in maternal mental health.

Shatara, A\*: Reinks, J: Remu, L

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### Breaking the silence in the primary care office: Discussing abortion at the time of contraceptive counseling

Dianat,  $S^*$ ; Holt, K; Steinauer, J; Dehlendorf, C

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### **Breastfeeding in a Farmworker Community**

Ivette Ramos Ortega, MD\*

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### **ADOLESCENCE HEALTH**

### **HAWTHORN ROOM**

### Pilot study of SpeakOut: a peer-led social network intervention

Reed, R\*; Fox, E; Campora, P; Silverstein, I; Galvez, M; Wilson, W; Dehlendorf, C
Abstract: p. 40

# Effectiveness of a Mind-Body and Peer Support Program for Teens Living with Chronic Illness and their Parents: A Pilot Study

Blockman, B; Acree, M; Becker, D; Moskowitz, JT; Nichols, A; Schaffer-White, A; Winkelman, M\*; Hecht, FM

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# Social network recruitment: an innovative approach to measuring the impact of SpeakOut on recipients and their peers

Reed, R\*; Fox, E; Campora, P; Silverstein, I; Galvez, M; Wilson, W; Dehlendorf, C Abstract: p. 40

### **HEALTH CARE FOR THE UNDERSERVED**

### HAWTHORN ROOM

### Localizing Global Health in the Salinas Valley

Burstedt Leonard, K\*; Uchtmann, N; Deukmedjian, G; Lusk, R. Abstract: p. 43

# Student-Led Clinic patient navigators accompany uninsured, immigrant patients in San Francisco's Mission District to improve show rates at safety net clinics

Alvarez,  $D^*$ ; Aboii, S; Chavarria, A; Fernandez, F; Guidera, J; Juarez, M; Rodriguez, N; Tapia, M

# Residents Collaborate with Community Organizations to Address the Social Determinants of Health

Sanford, E\*; Tirado, S; Lepp, N; Cushing, B; Dahlfred, L; Kong, A; Ramos, I

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Monitoring the prevalence of health care-based screening and interventions addressing patients' health-related social needs

De Marchis, E\*; Bueno, A\*; Cartier, Y\*; Fichtenberg, C; Gottlieb, L Abstract: p. 28

# Interactions between sexual behaviors and cervical high-risk human papillomavirus infection risk in a transmasculine sample

Deutsch, M\*; Reisner, S; Hughto, J; Pardee, D; Potter, J; Cavanaugh, T; Peitzmeier, S Abstract: p. 34

# Collaborating with Community Organizations to Address the Social Determinants of Health

Sanford, E\*; Tirado, S; Cushing, B; Kong, A; Ramos, I Abstract: p. 40

### **SURVIVORS** - a documentary about Restorative Justice

Chetty, R\* Abstract: p. 38

# Using Needs Assessment to Design and Implement a Transgender Specialty Care Home at an FQHC

Bondi-Boyd, B\* Abstract: p. 25

# The influence of urban greenspace on health and the review of resources available in San Francisco

James. J\* Abstract: p. 40

# Demographic and Clinical Factors Influencing HgbA1C Goal Attainment Among Kaiser Permanente Napa-Solano Diabetic Patients

Nicholas Alonzo, Pharm. D/MPH Candidate¹; Juleon Rabbani, Dr<br/>PH, MPH²; Ruben Gonzalez, MD²  $Abstract: p.\ 45$  sarily provides unique experiences that facilitate idea-sharing and global perspectives that directly apply to local initiatives. We are formalizing the relationship between site and rotating fellows to ensure the development of a coordinated program of work that localizes global health. We are formalizing our relationship with the Family Medicine residency program at Natividad.

**Outcome/Results:** Given that our intervention is multi-faceted, our project continues to evolve. Current ongoing efforts include: a) Relationship building with a multidisciplinary approach b) Strategic Asset-Mapping regarding a priority issue, obesity, c) Bi-monthly video discussion between rotating and site fellows to share ideas between global and local sites d) formalizing the role of the fellowship within the residency.

**Conclusions:** As a new program entering an established community, we aim to partner with established programs and facilitate growth as necessary.

### Macias, Edward

### Behavioral medicine / medical hypnosis for family medicine residents

**Context & Setting:** The objective of our project is to insure our residents are learning and practicing medical hypnosis with patients in an outpatient setting. Medical hypnosis is a procedure that is used to treat a number of common behavior problems (e.g., smoking, diet, exercise) and mood disorders and chronic pain. Medical hypnosis can be an alternative to medication or an option for patients who do not want to take medication or who have negative side effects.

**Setting/Population:** Our project teaching and documenting medical hypnosis is being done at our residency with all residents starting in their first year of training and continuing until they graduate in their third year. Medical hypnosis is taught in groups settings each year and in the third year specific time is set aside for medical hypnosis sessions with their patients, as well as for other behavioral medicine interventions. Our residents are learning to us medical hypnosis with their patients to treat a number of behavioral and mental health problems.

**Intervention/Study Design:** All residents consult with our residency psychologist in cases where medical hypnosis can be utilized to change negative behaviors or mood disorders and chronic pain. Residents present three or four cases for medical hypnosis to our program psychologist to observe the process/procedure and learn how to use medical hypnosis with their patients. In the third year of residency all residents will be expected to have consulted with our program psychologist with at least three or four patients for medical hypnosis and to treat at least two or three patients with medical hypnosis.

**Outcome/Results:** Teaching medical hypnosis to family medicine residents in an outpatient setting during three years of resident education is doable and allows residents to learn and practice a valuable procedure/skill they can add to their behavioral medicine tool box. Residents have responded positively to learning medical hypnosis at our residency in an outpatient setting,

**Conclusions:** Overall teaching and practicing medical hypnosis to residents has been successful at our residency program. Medical hypnosis is a skill physicians can learn and practice in an outpatient setting if they are training during residency.

### Paula Braveman\*, Kristen Marchi, Katherine Heck, Christine Rinki Favorable PTB rates among Black African immigrant women

Context & Setting: Preterm birth (PTB) is a major cause of infant mortality, childhood disability, and chronic disease in adulthood. The causes of the large and persistent disparity in preterm birth among African-American (U.S.-born Black) women compared with U.S.-born European-American (U.S.-born White) women are unknown. Some clinicians and researchers have assumed that the disparity reflects underlying genetic differences. A 1997 Illinois study found that African-born Black immigrants had birthweights similar to those of White women, contrasting with the adverse outcomes of U.S.-born Black women. This study compares PTB rates among African-born Black women and U.S.-born White women in population-based California data.

**Setting/Population:** Using statewide California birth certificate data on 453,702 women with singleton births during 2010-2016, who reported only Black or White race on the birth certificate, we compare women according to race and country/region of the mothers' birth (West African-born Black, other African-born Black, Caribbean-born Black, U.S.-born Black, and U.S.-born White). (Most Blacks brought to the US as slaves came from West Africa.)

Intervention/Study Design: We compare the different race-nativity groups on demographic, social, healthcare, and health characteristics described in birth certificate data (age, parity, maternal education, paternal education, delivery payer, first-trimester initiation of prenatal, prepregnancy BMI; residential census-tract characteristics determined from geocoded addresses). We examine how PTB rates

**Outcome/Results:** Thirteen students participated in these electives during the 2016-2017 academic calendar year. We asked students to complete a five-point Likert scale survey and give feedback regarding the different aspects of the elective. Students rated all interprofessional experiences as "good" (4/5) or "excellent" (5/5). Main barriers encountered were related to scheduling with the different providers, and lack of prior experience teaching medical students. The allied professionals involved also reported high levels of satisfaction and a better understanding of family medicine training.

**Conclusions:** IPE is increasingly important for future primary care doctors. The ambulatory family medicine elective can be an ideal setting for this learning to take place. Students are overall excited to increase their exposure to team-based care and work alongside other healthcare professionals, often for the first time.

### Dianat, S.\*, Reyna, A. Fox, E., Dehlendorf, C A systematic review of the non-contraceptive side effects and health benefits of the medroxy-progesterone injectable contraceptive method

Context & Setting: Despite the availability of a wide range of contraceptive methods, the experience of side effects deters many sexually active women who do not desire pregnancy from using contraception consistently, or at all, placing them at risk for unintended pregnancy. Providing counseling that includes information about side effects can help meet client informational needs, enhance their experience of contraceptive use, and facilitate continuous method use. In contrast to information about contraceptive effectiveness and safety, there is no equivalent evidence-based body of work on contraceptive side effects and health benefits.

To fill this gap, the Office of Population Affairs is undertaking a series of systematic reviews to report on the non-contraceptive side effects and health benefits of each method currently available in the United States. The first method in the systematic series is the depot medroxyprogesterone (DMPA). DMPA discontinuation rates in the United States at one year since initiation are higher than any other method, and 72.8% of women who discontinue DMPA do so due to side effects.

**Setting/Population:** Studies included in the systematic review must have examined injectable contraceptive health outcomes among non-breastfeeding, healthy women of ages 13-49 years, at risk of unintended pregnancy. Settings must have included clinical care or study settings. The quality of each study was assessed using a United States Preventive Services Task Force level of evidence grading system for study design, and each study was subsequently graded on its Risk of Bias.

**Intervention/Study Design:** A systematic review was conducted to answer two key questions: What are the side effects associated with injectable contraceptive use? What are the health benefits associated with injectable contraceptive use?

**Outcome/Results:** The database search identified 4004 articles. Twenty-seven articles were included in the review. The most frequently studied side effect was weight gain, reported in 16 of 27 articles. The other groups of side effects reported were amenorrhea, irregular menses, low sexual interest or loss of libido, depressed or negative mood, and headache. The health benefits reported were primarily reduced cancer risk.

**Conclusions:** This is a work-in-progress abstract. The review deadline is May 1, so the review will be completed by the date of the Colloquium.

# Burstedt Leonard, K\*. Uchtmann, N. Deukmedjian, G. Lusk, R. Localizing Global Health in the Salinas Valley

**Context & Setting:** Historically, global health practice was perceived to take place exclusively in low-income countries. However, if appropriate attention is paid to inequity and disparities in high-income countries, the clear distinction between "local" and "global" is exposed as a destructive and false dichotomy.

Setting/Population: The HEAL (Health, Equity, Action, and Leadership) fellowship is a global health fellowship working to reduce health disparities both domestically and internationally. While working in sites around the world, HEAL fellows engage and collaborate with the community aiming to facilitate positive change. In the US, HEAL fellows work in resource-poor, underserved communities while also networking within the larger global community, finding connections and applying global solutions to a local context. Our domestic site is Salinas, which is located along the Central Coast of California. Despite having a rich agricultural history and diverse population, generational poverty and insufficient public systems in Salinas contribute to health inequities ongoing today. Intervention/Study Design: Our approach to engagement utilizes networks of advocates within Natividad Medical Center and Salinas community. The HEAL site fellow's dual role as a health provider and community member provides a convenient and effective gateway to these allies. Then, strategic assetmapping enables us to identify existing organizations and projects that closely align with our priorities. HEAL rotating fellows spend 1 year in Salinas and 1 year in an international site. This dual role neces-

### **PCMH AND QUALITY IMPROVEMENT**

**VENTANA ROOM** 

# Pilot results of Procedural and Cognitive Competency Assessment Tools in maternity care for family medicine residents

Dahlfred, L\*; Goldstein, J

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# Using Lean and change management to engage staff in clinical workforce development

Liang, C\*; Manaois, A; Lee, A; Labuguen, R

Abstract: p. 29

# Geriatrics at the Family Health Center (FHC): lessons in team-based quality improvement

Mirrer, M\*; Dietrich, M; Yang, J; Uy-Smith, E

Abstract: p. 36

### A systematic review of client preferences for contraceptive counseling

Fox, E\*; Reyna, A; Malcolm, N; Rosmarin, R; Zapata, L; Frederiksen, B; Moskosky, S; Dehlendorf, C

Abstract: p. 39

# The educational impact of working with patient advisors in residency training: an assessment of two residencies

Sharma, AE\*; O'Connor, N; Kanthi, D; Donnell, D; Adler, B

Abstract: p. 32

# The use of basic after visit summaries in the Chichewa language to improve patient understanding of diagnosis and treatment plan

Standish, J\*; Mboma, A; Mkweu, R; Scander, L; Siliya, B; Jayasekera, N; Bergman, K Abstract: v. 26

### Increasing Flu Vaccination Rates at UCSF Lakeshore

Claire Greene, Jacob Stultz, Colleen Carlston, Sara Galewyrick

Abstract: p. 48

# Demographic and Clinical Factors Associated with Emergency Department Visits Among Kaiser Permanente Napa-Solano Medi-Cal Patients

Keith Jackson, MSPAS/MPH Candidate<sup>1</sup>; Juleon Rabbani, DrPH, MPH<sup>2</sup>; Matthew Symkowick, MD<sup>2</sup> Abstract: p. 49

### ABSTRACTS: Concurrent Talks

Lim, B.\* Carvajal, N. Mays, A. Lewis, L. Imagining a more inclusive medical education and practice: Freedom School for Intersectional Medicine and Health Justice

**CONTEXT & OBJECTIVE:** Medicine and public health have included incomplete historical accounts of the contributions of women of color and do not center their practices on the lived experiences of indigenous and non-European populations, oftentimes conveying only "broken narratives" of racial and gender health inequities. These fields rarely analyze how intersectional identities, power, and privilege are embedded in their practices and methods of research. Women of color comprise only 11.7% of doctors, oftentimes facing barriers such as lack of support, limited mentorship opportunities, and gaps in medical education that overlook health inequity and injustices against marginalized communities.

**SETTING/POPULATION:** The Freedom School for Intersectional Medicine and Health Justice is a student-driven gathering of medical students, health practitioners, public health students, and community members who are dedicated to integrating critical studies (i.e. critical race theory, gender studies, ethnic studies, queer studies) and social justice principles into medicine and public health. Specifically, this initiative is centered on learning from the historical and contemporary health narratives of women of color. Gatherings are held twice per month at the UC Berkeley School of Public Health.

**INTERVENTION/STUDY DESIGN:** The Freedom School centers and learns from the health narratives of women of color through discussion gatherings that integrate (1) foundational text readings in critical theory, (2) community site visit partnerships and dialogues with community health activists of color in the East Bay, and (3) our own lived experiences as women of color and allies for health justice.

**OUTCOMES/RESULTS:** The Freedom School is an interdisciplinary, supportive, and imaginative community space that has been missing in medicine and public health. The creation of spaces such as the Freedom School is necessary in order to challenge academic silos, create a space inclusive of diverse student experiences, and gain deeper insight into understanding health disparities.

**CONCLUSIONS:** The Freedom School is first and foremost a rare "freedom space" and "healing space" in medicine during a time when such freedom spaces are limited. By centering community, activism, and personal growth as current and future practitioners, the Freedom School is a think-space and action-space advocating for intersectional and inclusive practices that can re-imagine and transform institutions of medicine and public health.

KOIDA D, FRIEDMAN  $R^*$ , HISEROTE P. Pipeline to patient-centered care: involving patient advisors in the residency selection process.

**CONTEXT & OBJECTIVE:** All residency programs desire to match applicants who will be both a "good fit" for their program and successfully meet all milestones. While patience-centered care is highly valued within family medicine, residencies have historically given more weight to board scores and academic achievement during file review and ranking. This may select for residents strong in medical knowledge competencies, but may not adequately evaluate interpersonal communication and professionalism. Kaiser Permanente Santa Rosa has a rich history of patient-centered care, with eight patient advisory councils. We sought to involve patient advisors in the selection process of our charter class.

**SETTING/POPULATION:** The Kaiser Permanente Santa Rosa Family Medicine Residency conducted its first selection season in the fall of 2017. Six members of the family medicine patient advisory council who had participated in new physician hire interviews were recruited to participate.

**INTERVENTION/STUDY DESIGN:** The selection team met with patient advisors prior to interview season to ask what factors they felt were most important to them in a physician. This feedback helped inform the scoring rubric for applicant file review. Two patient advisors attended each interview lunch, discussing their role and talking informally with applicants. Advisors were trained to give feedback on communication skills and professionalism of applicants using a Likert scale. Applicants gave anonymous post-interview day feedback that included questions about highlights and drawbacks of the program/interview day.

**OUTCOMES/RESULTS:** This process worked smoothly, with both faculty and patient advisors engaged and collaborative. Patient advisor feedback was incorporated into a total "gestalt" score for

quality of lives lower.

**Conclusions:** While misconceptions about the quality of life and prognosis of people with disabilities are pervasive, relatively simple educational interventions improve knowledge, attitudes, and beliefs. Addressing the social determinants of health for elders and people with progressive diseases is a more complex policy and service delivery problem. But programs to serve people in their homes are expanding.

### Mittal, P\*, Pecci, C\*, Chu, C, Pollock, C, Goldhammer, B, Warren, M Rapid HIV testing on labor and delivery should not replace third trimester HIV testing

Context & Setting: Rapid HIV testing in labor and delivery (L&D) has a vital role in ensuring that every woman's HIV status is known prior to delivery. However, it is not a replacement for standard prenatal testing. Routine HIV testing in the first and third trimester provides the opportunity to treat women prior to delivery. The positive predictive value of rapid HIV testing on L&D can be as low as 43%, and unnecessary interventions may be implemented in cases of "false positive" rapid results while awaiting confirmation.

**Setting/Population:** To better understand how rapid HIV testing is being used throughout the United States, we sought to describe the nature and context of calls received by the National Perinatal HIV Hotline related to rapid HIV testing on L&D.

Intervention/Study Design: We analyzed calls from the Perinatal HIV Warplane from November 1, 2013, to December 31, 2016, where "Positive Rapid HIV Test in L&D" was identified as a case category by the consultant. Multiple calls related to the same woman-infant dyad were counted as one case. Using narrative case details, calls were subsequently coded according to the reason for HIV testing on L&D.

**Outcome/Results:** In 22 cases (25%), testing was done due to lack of prenatal care. In 13 cases (15%), testing was because prenatal results were unavailable. In 21 cases (24%), testing was in addition to 1st and 3rd trimester screening. Reasons for additional testing included: "It's protocol"; History of false positive test(s) during pregnancy; Concern about ongoing HIV risk behavior. In 21 cases (24%), testing was done because, despite engagement in prenatal care, an HIV test was not done in the 3rd trimester. In at least one case without a 3rd trimester test, the patient was confirmed as having HIV and the infant was found to have HIV at birth. In 10 cases (11%), the reason for testing was not documented.

**Conclusions:** Rapid HIV testing for women who present to L&D with no or inadequate prenatal HIV testing has been a critical public health intervention. However, inappropriate use of this intervention may potentially cause harm. Identification of HIV disease in the antepartum period still remains best practice. In our sample, the majority of tests were done despite previously negative results without ongoing risk factors, leading to potentially unnecessary interventions and treatments. At least one true positive HIV result in a patient engaged in prenatal care could have been identified with appropriate 3rd trimester screening, representing an important missed opportunity to begin treating HIV during the antenatal period in order to decrease the risk of perinatal transmission. Prenatal care settings should institute routine third trimester HIV testing per CDC guidelines and have a reliable system of communicating results to the delivering institution, saving rapid HIV testing on L&D for those with no prenatal care or at risk for HIV acquisition since the third trimester test.

# Friedman, R. Hoff-Arcand, L.\* Family medicine of the future: creating 4th year electives that educate, innovate, and inspire

**Context & Setting:** Effective primary care cannot be delivered by physicians alone. Ambulatory medical school electives in family medicine are often limited to short office visits, following attending physicians through high volume clinics. We believe the ideal medical practice of the future relies on team-based care, focusing on prevention, education, and population management. This emphasis on interprofessional education (IPE) should be reflected during electives in family medicine.

**Setting/Population:** At the Kaiser Permanente Santa Rosa Family Medicine Residency Program, we developed a novel elective curriculum for fourth year medical students. The four-week elective programs combine traditional family medicine outpatient clinical teaching with IPE

Intervention/Study Design: Using the Kaiser Permanente integrated healthcare model, we developed a curriculum which offers medical students an exposure to allied health professionals. In addition to working in the residency faculty clinic, students participated in patient care in a variety of settings. They worked alongside nurses and pharmacists in population management programs. Students learned from acupuncturists, mental health counselors, translators, nutritionists, home health nurses and therapists, as well as hospital chaplains. They were also invited to attend patient advisory council meetings and patient group classes with physical therapists and health educators. We surveyed the students at the end of their elective to evaluate the various aspects of the curriculum and its impact on their overall medical training.

**Outcome/Results:** Primary participants listed an average of 3 social contacts. Of the listed social contacts, 40% told their primary they wanted us to hear from us. We successfully recruited 62% of the peers who wanted to learn about the study as secondary participants.

**Conclusions:** Our approach was feasible for recruiting participants to a study about social communication. Primary participants identified a lower number of peers than anticipated. Future studies may benefit from using this methodology, and should plan for a primary-to-secondary recruitment ratio that is informed by the communication experiences and preferences of specific study populations.

# Saffier, K.\*, Diemoz, L., Brooks, N., Chan, L. Rodelo, L. Buprenorphine treatment retention for patients with opioid use disorders who use marijuana and/or methamphetamine.

**Context & Setting:** Choosing Change is an interdisciplinary program that uses buprenorphine as the primary medication assisted treatment (MAT) with a goal of opioid abstinence. However, with a harm reduction philosophy and practice for other mind and mood altering drugs in an effort to maximize treatment engagement, evidence demonstrates that the longer a person is in treatment, the more likely treatment will be effective. The objective of this study is to determine whether other drugs such as marijuana and/or stimulants such as methamphetamine are associated with decreased treatment retention.

Setting/Population: Contra Costa Regional Medical Center and Health Centers, the Homeless Program (Public Health) and Behavioral Health collaborate in the Choosing Change program to treat Contra Costa Health Plan patients with OUDs. Referrals to provide ongoing buprenorphine treatment are from primary care, hospital discharge, medical and psychiatric emergency departments, social model community treatment programs and detention. Our interdivisional team approach uses buprenorphine and counseling, including motivational interviewing, in group medical visits.

**Intervention/Study Design:** Beginning in 2013 through 2017, data from our electronic health record were reviewed to determine duration of continuous treatment for patients enrolled in the Choosing Change program. Urine toxicology results were examined for patients in 3 to 6 months intervals or greater than 24 months. Urine toxicology results are available for each patient attending group visits and will be correlated with duration of treatment episode.

**Outcome/Results:** The data, just acquired, will be analyzed to determine if there is an association with these individual drugs and their use in combination as it relates to duration and number of treatment episodes. Upon learning what relationship(s) exist, we will then be able to prioritize how we develop and use our resources to optimize harm reduction approaches. This may then promote abstinence for our patients for whom continued drug use compromises their health and continued recovery from opioid use disorders, in particular, and substance use disorders in general.

**Conclusions:** At the conclusion of this study, we will have a better understanding of our patients' substance use disorders treatment needs for this chronic often relapsing disease.

### Kripke, C.\*

### Unconscious bias in goals of care conversations: Societal issues and cultural messages

**Context & Setting:** There is an urgent need to reduce overutilization of medical care in patients who are terminally ill, and to support people's quality-of-life as they age and lose function. However, in our zeal to reign in futile care for terminally ill patients, health care providers may unconsciously promote false narratives about disability. Literature regarding the prognosis of elders is often misapplied to people who have significant functional limitations but healthy organs. This leads to premature withdrawl of life-saving care.

Setting/Population: Hospital staff, people involved in care and discharge planning, and palliative care teams benefit from training in recognizing unconscious bias in goals-of-care conversations, and tools to promote quality-of-life for people with developmental or acquired disabilities. Intervention/Study Design: A series of trainings for hospital teams have been developed and delivered. End-of-life care should be about helping people adjust to loss-of-function with adaptive equipment, personal assistance, home modifications, resources, social support, information, and opportunities to participate fully in home and community. What people are typically offered is medication, procedures, and institutionalization. The disability community's core principles and service delivery models can be applied to elders and people with chronic disease.

**Outcome/Results:** Education of health care providers reduces premature withdrawal of life saving care and promotes quality-of-life. Doctors have a lot of influence over cultural narratives. The words we choose influence how patients and their families view their symptoms, potential, and value, and where our society invests its resources. We need to examine our beliefs, the scripts we use, the words we choose, and the underlying assumptions behind them. When we do, uncomfortable truths regarding our attitudes about people with disabilities surface. People with disabilities rate their own quality of life similarly to that of the general population, but family members and physicians rate the

each applicant, and their scores were found to be internally consistent with faculty scores. In free text answer to "highlights of the interview day", 39.4% of all applicants wrote about their conversations at the lunch, and nearly half of these respondents specifically praised the patient advisor presence as a "best feature". No applicants provided negative comments about the patient advisors.

**CONCLUSIONS:** Patients may offer a unique perspective on evaluating applicants, one that helps select for a more patient-centered workforce. Further research is needed to better quantify and measure the value of incorporating patients into selection season.

Guidry, Danielle\*, Huerto, Ryan MD, Woldeyesus, Tem MD, Edmunds, Magdelen MD MPH, Leung, Lydia MD, Tapia, Manuel MD MPH, Uy-Smith, Elizabeth MD MPH MAS Family Health Corps Scholars: How teaching health centers can fill an important equity gap by ensuring diverse pre-medical students access to prestigious clinical experience.

**CONTEXT & OBJECTIVE:** One out of every five US medical students has at least one parent who is a physician. This illustrates how commonplace economic privilege exists throughout medical education. Yet, it also sheds light on the subtle advantage of access to clinical experiences requisite to a competitive medical school application. Teaching health centers are ideally positioned to offer less connected students unique roles that emphasize caring for vulnerable populations while creating a pathway to reduce medical education disparities.

**SETTING/POPULATION:** Family Health Corps Scholars Volunteer program serves patients and families at the Family Health Center (FHC) on the San Francisco General campus. Program leadership is partnering with Bay Area institutions from the community college through Post-Baccalaureate levels to identify cohorts of ethnic minority students interested in STEM.

INTERVENTION/STUDY DESIGN: The first cohort of Family Health Corps Scholars have begun supporting clinic staff and providers in the realms of patient navigation, medical scribing and health coaching. FHC Scholars will learn intricate details of systems based and clinical practice in a Federally Qualified Health Center setting. Protocols have been created for recruitment, training and development of diverse students interested in health care and passionate about serving the underserved. Work-based learning experiences will be complimented by curriculum of professional development and mentorship provided by the greater FCM community. FHC has sponsored a Health worker supervisor to oversee the logistics and scheduling of the program and champion faculty have been appointed to provide guidance in the support of the scholars.

**OUTCOMES/RESULTS:** The planned objectives will aim to reduce the uneven burden on marginalized pre-medical students through high-yield intern experience and mentorship. Objectives include a) developing a diverse cohort of FHC Scholars (with at least 50% from UIM backgrounds) b) Integrate three new roles into the clinic setting to improve patient care c) develop professional development curriculum that can offset the emphasis on arbitrary barriers placed in front of underrepresented students.

**Conclusions:** FHC Scholars is an innovative model addressing inequities in both clinical care and educational achievement by developing talent in socioeconomically disadvantaged youth who commonly have their efforts devalued since they don't easily access voluntary clinical positions.

Mirrer, M\*, Dietrich, M, Olivarez, A., Kim, A, Cuervo, C., Gomez-Bramble, T., Sanchez, A., Taylor, K. Summer urban health leadership academy (SUHLA)/music & medicine: creating meaningful patient engagement opportunities for pipeline students

**CONTEXT & OBJECTIVE:** Opportunities for students interested in health professions to engage with patients are often limited by the students' lack of clinical training. While clinical shadowing remains a core component of the SUHLA curriculum, shadowing sessions often lack moments for students to communicate directly with patients. As such, we sought to create a new program in which students engage with patients over a shared non-clinical interest: music.

**SETTING/POPULATION:** This project was piloted in the Acute Care for Elders (ACE) Unit at the Zuckerberg San Francisco General Hospital (ZSFGH). Rising junior and senior students from the John O'Connell High School in San Francisco's Mission District were invited to participate in the SUHLA, a three-week program co-led by four UCSF graduate students. ACE team members nominated patient participants. Family medicine residents then offered these individuals voluntary participation in the project.

**INTERVENTION/STUDY DESIGN:** During the first week of SUHLA, students attended a screening of "Alive Inside", a powerful documentary about the subjective benefits of music among older adults

with cognitive impairment. After the screening, students attended a debriefing session and educational workshop with Family Medicine residents on the themes of interpersonal and patient-centered communication and professionalism. Students were then invited to participate in patient interviews on the ACE Unit at ZSFGH.

**OUTCOMES/RESULTS:** Twelve high school students enrolled in SUHLA in 2017. After completing the educational workshop, all twelve of the students elected to participate in the patient interviews. Six pairs of students each interviewed one patient under the guidance of one graduate student or post-graduate trainee. After the interviews, the students created and listened to the personalized playlists with the patients. Patients and students, alike, unanimously reported satisfaction with the intervention.

**CONCLUSIONS:** The partnership between SUHLA and the new Music & Memory program at ZSFGH offers a unique platform for young people to explore their interests in the health professions and benefit from connecting with patients. Based on the success of the 2017 pilot, the project continues in the academic year.

Cuervo, C\*., Dietrich, M., Gomez, T., Kim, A., Mirrer, M., Olivarez, A., Sanchez, A., Tapia, M., Taylor, K. Music and memory: treating dementia through meaningful engagement with high school pipeline students

**CONTEXT & OBJECTIVE:** Family physicians are uniquely situated to address these areas of social medicine: 1) care of a growing population with dementia and 2) generation of an equitable and representative workforce to meet those needs. Music has been shown to create emotional connections and minimize behavioral disturbances, depression, and isolation among patients suffering from dementia, but is difficult to provide in low-resource settings. At the same time, training opportunities for students interested in health professions are often limited by lack of direct patient engagement. In our community hospital, we saw an opportunity to connect local high-school students with hospitalized patients with dementia, creating a cross-generational wellness and learning activity.

**SETTING/POPULATION:** This project connects patients at the Acute Care for Elders (ACE) Unit at Zuckerberg San Francisco General Hospital with high school students from John O'Connell High School who participated in the FACES for the Future health-interest internship.

**INTERVENTION/STUDY DESIGN:** FCM residents developed and led structured curricula about dementia, music, and behavior during two eight-week clinical internships. Hospitalized elderly patients with dementia were identified by the ACE team and interviewed by students to create a customized music playlist evoking their youth and memories. A device with the playlist was kept in the patient room for the duration of the hospitalization. Qualitative surveys were collected from both students and patients to assess the effect of the activity on mood, behavior, and learning.

**OUTCOMES/RESULTS:** Over four months, four high school students participated in the dementia curriculum and interviewed six patients in the ACE unit. Students demonstrated increased comfort and confidence in their knowledge of dementia, skills in patient-engaged interviews, and reported interest in serving geriatric patients. Patients reported increased enjoyment and were observed to have improved recall of past experiences.

**CONCLUSIONS:** Connecting high school students interested in health professions and hospitalized patients with dementia through shared interest in music in a structured approach can improve both the health pipeline experience and provide a more enjoyable and connected experience for dementia patients while they are hospitalized. Based on the success of the 2017 pilot, we plan to continue and expand the program.

Saffier, K.\*, Blaschak, P., Brooks, N., Chan, L., Moskin, A., Pinto, N., Rodelo, L. Grateful patients and providers: interdisciplinary buprenorphine group medical visits expand over 10 years in response to a deadly opioid epidemic.

Context & Setting: As the opioid addiction and overdose continues to devastate US families and communities, a shortage of DEA waivered providers cannot accommodate the influx of patients with opioid use disorders (OUDs) to our health systems. Many communities are without buprenorphine waivered providers and many waivered providers do not treat any or fewer patients than their waiver allows. There is clearly a supply/demand gap that needs to narrow to treat those in great need of medication assisted treatments (MAT).

**Setting/Population:** Contra Costa Regional Medical Center and Health Centers, Health Care for the Homeless (Public Health) and Behavioral Health collaborate in the Choosing Change program to

studies on client preferences were not included in a prior review series that the current series served to update, we conducted a targeted search for earlier research published from October 1992 through February 2011.

**Outcome/Results:** In total, 26 articles met inclusion criteria, including 17 from the search of literature published March 2011 or later and nine from the search of literature from October 1992 through February 2011. Nineteen articles included results about client preferences for information received during counseling, 13 articles included results about preferences for the decision making process, 13 articles included results about preferences for the relationship between providers and clients, and 11 articles included results about preferences for the context in which contraceptive counseling is delivered.

**Conclusions:** Evidence from the mostly small, qualitative studies included in this review describes preferences for the contraceptive counseling interaction. Provider attention to these preferences may improve the quality of family planning care; future research is needed to explore interventions designed to meet them.

Reed, R\*, Fox, E, Campora, P, Silverstein, I, Galvez, M, Wilson, W, Dehlendorf C. Pilot-testing "SpeakOut," a social network-based contraceptive education intervention for adolescents

**Context & Setting:** Friends and family are valued sources of contraceptive information, particularly among adolescents. We sought to test SpeakOut, an intervention designed to harness the power of social communication among adolescents to facilitate the dissemination of evidence-based information about contraception and increase adolescent contraceptive use.

**Setting/Population:** Adolescent users of long-acting reversible contraceptive (LARC) method were recruited as primary participants (n = 118) from 8 family planning clinics in the Central Valley, Central Coast, Santa Clara Valley and Inland Orange County. A social network recruitment process was then utilized to recruit their peers as secondary participants (n = 89).

Intervention/Study Design: Primary Participants completed a baseline survey and then wrote a list of up to five 15-19 year old peers who they thought would be interested in participating in the study. Participants were then randomized to receive either the intervention, SpeakOut, or the control intervention PartyWise, an alcohol use intervention, based on Screening, Brief Intervention, Referral to Treatment (SBIRT). We contacted the social contacts who had expressed interest in learning about the study The listed social contacts who confirmed they were interested in hearing from us were contacted by phone one week post-intervention delivery, screened, verbally consented and administered a baseline survey. Both primary and secondary participants completed 3-month follow-up surveys to assess their LARC knowledge and use.

**Outcome/Results:** At 3-month follow-up, 77% of SpeakOut recipients reported that the intervention encouraged them to talk about their contraceptive with peers. At 3-month follow-up, peers of SpeakOut recipients were less likely than peers of control participants to report using no contraceptive method (20% intervention vs. 46% control, p=0.01).

**Conclusions:** SpeakOut is a promising approach to disseminating evidence-based information about highly effective contraceptive methods among teens.

Reed,  $R^*$ , Fox, E, Campora, P, Silverstein, A, Galvez, M, Wilson, W, Dehlendorf C. Social network recruitment: an innovative approach to measuring the impact of SpeakOut on recipients and their peers

**Context & Setting:** Social communication plays an important role in contraceptive decision-making, particularly among adolescents. Innovative methods are needed to study the content and patterns of social communication and to evaluate interventions designed to influence social communication. We designed an innovative social-network based recruitment approach for a pilot RCT of a social communication intervention about contraception (SpeakOut).

**Setting/Population:** Adolescent users of long-acting reversible contraceptive (LARC) method were recruited as primary participants (n= 118) from 8 family planning clinics in the Central Valley, Central Coast, Santa Clara Valley and Inland Orange County.

**Intervention/Study Design:** Before randomization to study arm, primary participants completed a baseline survey and brainstormed a list of up to 5 female friends with whom they felt comfortable discussing "personal stuff" and inviting to participate in a study. We encouraged primary participants to tell their listed friends about the study, and then contacted them one week after baseline to see if their friends were willing to be contacted to participate. We recruited interested social contacts as secondary participants (n=89) and administered baseline surveys by phone.

made recommendations to align prescriptions with international care guidelines for COPD. Research assistants (RAs) observed patients and recorded each step of inhaler use on a checklist. Completing all steps was considered "perfect use," while completing all steps considered to be essential was considered "adequate use." The RAs also reviewed the medical record at enrollment and 9 months to assess current inhaler prescriptions.

**Outcome/Results:** Metered dose inhalers were most commonly used (91.8% of patients), followed by handihaler (40.2%), diskus (19.4%), and soft mist (12.0%) inhalers. At baseline, there were no significant differences in the proportions of patients in the coached and usual care groups demonstrating perfect use (4.2% v. 1.2%) and adequate use (12.6% v. 6.0%) of all their inhalers nor in the proportion of patients prescribed inhalers concordant to guidelines (72.7% vs 69.2%). At 9 months, coached patients were over 3 times more likely to demonstrate perfect use (22.9% v. 6.5%, p<.01) and adequate use (38.6% v. 11.7%, p&lt;.001) for all their inhalers and were more likely to be prescribed guideline-concordant inhalers (91.9% v. 79.1%; p&lt;.05).

**Conclusions:** Health coaching substantially improved correct inhaler use and guideline-concordant prescription of inhalers for patients with COPD. from a Medical Assistant.

# Fox E\*, Hessler D, Reed R, Campora P, Galvez M, Dehlendorf C Making it in the real world: preparing for implementation of a patient-reported outcome performance measure on contraceptive counseling

Context & Setting: The Reduced Interpersonal Quality of Family Planning Care scale (IQFP-R) is a 4-item measure of patient experience of contraceptive counseling, designed for use as a patient-reported outcome performance measure (PRO-PM). In 2017, we began a large-scale, real-world test of the validity of the IQFP-R as a PRO-PM in clinics across the US. We prepared for real-world testing using two distinct but related strategies: 1) conducting face validity testing of the measure with patients, providers, and administrators; and 2) developing and disseminating an implementation manual to promote accuracy and consistency of data collection across diverse clinical settings.

Setting/Population: Patients receiving contraceptive counseling at clinics in mid-sized cities in the California Central Valley, Eastern Texas, and North Carolina; providers and administrators from clinics across the US.

Intervention/Study Design: We conducted patient cognitive interviews in English and Spanish in the Central Valley and three focus groups in English, one each in the Central Valley, Texas, and North Carolina. Interviews and focus groups addressed the IQFP-R and its administration, including testing of paper and electronic modes. We conducted two Modified Delphi Processes, one each with providers and clinic administrators, to reach consensus on the acceptability of the IQFP-R and understand barriers to implementation. Patient, provider, and administrator responses informed development of an implementation manual for sites implementing the IQFP-R.

**Outcome/Results:** Twenty-seven patients participated in interviews and 15 participated in focus groups. Patients found the IQFP-R acceptable and its use in their care settings valuable, and provided feedback on survey presentation and formatting that informed revised versions. Nineteen providers and 14 administrators participated in the Modified Delphi Process. They found the IQFP-R and its use as a measure of provider performance acceptable and provided helpful feedback on implementation barriers, especially the feasibility of patient identification through electronic health records. Feedback from patients, providers, and administrators helped inform the development of our implementation manual.

**Conclusions:** Engagement with patients, providers, and administrators about our measure, as well as thorough attention to implementation concerns, prepared us for implementation of the IQFP-R in the real world. The IQFP-R is now being successfully administered with patients of 10 clinical sites around the country.

# Fox E\*, Reyna A, Malcolm N, Rosmarin R, Zapata L, Frederiksen B, Moskosky S, Dehlendorf C A systematic review of client preferences for contraceptive counseling

**Context & Setting:** Providers can help clients achieve their personal reproductive goals by providing high-quality, client-centered contraceptive counseling. Given the individualized nature of contraceptive decision making, provider attention to clients' preferences for counseling interactions can enhance client-centeredness. This review synthesizes the evidence on client preferences for contraceptive counseling.

**Setting/Population:** Women of reproductive age in the US Intervention/Study Design: As part of a systematic review series to inform contraceptive counseling in clinical settings, we searched 16 electronic bibliographic databases for studies related to client preferences for contraceptive counseling published from March 2011 through November 2016. Because

treat Contra Costa Health Plan patients with OUDs. Referrals are from primary care, hospital and emergency departments, community treatment programs and detention to provide ongoing buprenorphine treatment.

**Intervention/Study Design:** We developed teams consisting of nurse care managers, behaviorists, and waivered providers to see patients in a group setting after intake, evaluation and orientation to buprenorphine therapy. Groups are process oriented and use motivational interviewing. Beginning in 2008, with 1 group per week, we now have 9 four hour weekly clinics in 5 primary care sites. As demand increased, we added staff and integration to increase capacity. Most patients are seen in groups between 6 and 12 patients at intervals from weekly to bimonthly according to their clinical and recovery needs.

**Outcome/Results:** Choosing Change now employs 4 nurse care managers, who assist patients and both primary care and Choosing Change providers, 4 behaviorists who see patients individually and co-facilitate groups with 8 physicians and a nurse practitioner. Currently, over 350 patients receive buprenorphine from over 44 providers. Patients surveyed appreciate the group environment and support which is obvious from their spontaneous comments and surveys. Staff meet monthly for program development and case conferencing. The collaborative design and process makes this often challenging work more sustainable and helps reduce burnout.

**Conclusions:** Combining counseling, nursing and medical services in interdisciplinary buprenorphine group medical visits supports patients and primary care providers in a recovery oriented model that increases capacity and satisfaction.

# Zaro, C\*, Namihas, B, Irvine, C. Evaluating the impact of residency-driven high school preparticipation health screenings.

**Context & Setting:** Purpose: To measure the impact of mass pre-participation screenings on residency training and on accessibility of East Salinas high school students to health care. Background: East Salinas high school students have historically experienced barriers to health care, sometimes precluding them from participating in after-school sports activities. The Natividad FM residency program seeks opportunities to serve and learn from adolescents. Organizing effective mass screening sessions has been limited by lack of available faculty and busy resident schedules.

**Setting/Population:** In October 2017, 28 Residents, 6 medical Students, and 7 Faculty participated in a mass screening activity, visiting 3 high schools in East Salinas, screening 259 adolescents.

Intervention/Study Design: The residency explored scheduling a screening session during protected resident education time, dividing all residents and faculty to attend three high schools in one afternoon. This followed a didactic presentation on adolescent sports medicine. Retrospective resident and high school athletic director surveys were obtained on effectiveness of education and volume of students screened.

**Outcome/Results:** 79 students were screened at Alisal HS, 80 at East Alvarez HS, and 100 at North Salinas High. Residents and faculty were able to complete the screening in the 2-hr time block using a well-coordinated work flow. Responses from the athletic directors was uniformly positive. Resident feedback was positive as well, with critique offered on workflow improvements.

**Conclusions:** The residents were able to actively participate in a large volume of sports screenings, directly applying their knowledge on the topic. The offsite active learning was greatly enjoyed and appreciated by the resident cohort. In addition, 259 high school students were provided access to mandatory sports physical screenings on their respective campuses, thereby increasing their opportunity to participate in athletic events as a part of their education.

Taylor, Kenji MD MSc\*; Smith, Matt; Senigar, Tracy; Foxx-Drew, Davontae; Lacey, Jahmil; Philip, Nathan; Woldeyesus, Tem MD; Chirinos, Chris; Chen, Victoria; Huang, Beatrice; Tapia, Manuel MD MPH. The Cut Hypertension Program (CHP): Training Barbers of African American Barbershops to be Health Coaches

Context & Setting: Black men have the highest rates of hypertension-related death of any demographic group. Hypertension-related outreach via barbershops and the use of health coaches to provide out-of-clinic hypertension counseling is an established mode of improving blood pressure control. The Cut Hypertension Program (CHP) was borne out of the evidence-based idea that African American barbershops in San Francisco and Oakland can serve as places of health prevention, community building, out-reach, and barbers can lead efforts as health coaches to improve rates of uncontrolled hypertension among African American men.

**Setting/Population:** CHP is partnering with barbershops Shears (San Francisco), Chicago's (San Francisco) and Benny Adem (Oakland) with support from UCSF FCM Department, Center for Excellence in Primary Care (CEPC), Student National Medical Association at UCSF SOM and Southeast Health Center.

**Intervention/Study Design:** CHP has been conducting blood pressure screenings for patrons and working with the CEPC to provide health coach training to barbers. Barbers are being trained to understand the importance of health disparities in the African American community, take blood pressures, counsel patients on the importance of lifestyle modifications along with medications and refer to local community resources. CHP will work with barbers to identify community-specific needs and resources, while supporting barber-led barbershop-based events to promote healthy advocacy.

**Outcome/Results:** The planned objectives are a) training barbers at the 3 partner barbershops in health coaching b) organizing one barbershop-based health promotion activity c) develop community-specific materials for patients to engage in primary care.

**Conclusions:** CHP is a community-based partnership based in evidence to address the hypertension disparity among African American men.

# Arai, A; Hong, J; Incze, M; Karlin, J; Krauss, K; PeBenito, M\*; Borne, D. Encampment-based healthcare: training future leaders in low-barrier street-level care

**Context & Setting:** Approximately 7500 San Franciscans are homeless and of those 58% are unsheltered (Applied Survey Research, 2017). Clinicians report that experiential learning is critical to providing high quality care to homeless populations (McNeil, 2013). While clinical trainees are tasked with caring for patients living on the street in the clinic and hospital settings, they are not exposed directly to the environments where this population lives. In order to support future clinical leaders in this field, we organized structured learning experiences where trainees provided patient care at San Francisco homeless encampments.

Setting/Population: Leaders in homeless healthcare within the SF Department of Public Health (DPH) along with non-profit stakeholders facilitated healthcare events at encampment locations. Medical residents and students were recruited to lead multiple domains of the events, including patient care and linkage to primary care. Encampment health events were strategically held at large encampments where Homeless Outreach Team members identified a high burden of illness.

Intervention/Study Design: Testing and treatment for communicable diseases, including STIs and HIV, as well as pre and post-exposure prophylaxis, addiction services, acute care, family planning, vaccination, and follow up coordination were delivered by trainees under the supervision of homeless healthcare expert attending physicians. After seven Encampment Health events, in which over 100 patients were cared for, trainee participants were surveyed to evaluate the impact that these events had on their understanding of the unique barriers to care faced by homeless patients and their level of comfort in providing low barrier care to patients.

**Outcome/Results:** Of those surveyed, 60% felt that after participating in the encampment events, they were more comfortable providing care to the SF homeless population. Furthermore, 90% felt that they would recommend this experience to other trainees.

**Conclusions:** Training institutions focused on caring for underserved populations have a responsibility to develop trainees' understanding of barriers to care. These events successfully provided an opportunity for learners to build on-the-ground skills for providing direct care to patients living on the street. Importantly, this experience has the potential to develop future leaders in homeless healthcare by challenging trainee participants to break down barriers and improve access to this deeply underserved population.

# Fichtenberg, C,\* Wing, H,\*, Bullock, J\*. Community health center attitudes about social determinants interventions

Context & Setting: Community health centers around the country are interested in developing programs to address social barriers to health in order to improve health outcomes and reduce unnecessary health care utilization. We set out to evaluate the impacts of a one-year learning collaborative that supports seven California community health centers (CHCs) to develop programs to address their patients' social determinants of health (SDH). The goals of the evaluation are to understand whether the collaborative increased health centers' capacity to implement social needs interventions, and to examine how the seven sites addressed implementation challenges and what collaborative elements were most helpful. We report here on the baseline data.

Intervention/Study Design: In Mexico, we conducted six focus group discussions (FGDs) and 29 cognitive interviews to develop and refine scale items, and pilot tested the scale through surveys with 499 contraceptive clients recruited in clinics and hospitals. We reduced the item pool using factor analysis and item response theory approaches, and established convergent, predictive, and divergent validity through a series of regression analyses. We assessed internal consistency reliability using Cronbach's alpha. To adapt the scale for use in India and Ethiopia, we conducted eight FGDs in India and eight in Ethiopia to understand women's perspectives on what constitutes a positive interaction with providers about contraception.

**Outcome/Results:** The 35-item QCC scale was reduced to 22 items in three domains: information exchange, interpersonal relationship, and disrespect/abuse. QCC scores were significantly correlated with a global measure of patient experience (OR=22.6; 95% CI: 10.9-46.8) and report of informational needs being met at 1-2 months follow-up (OR=4.7, 95% CI: 2.0-10.8). Relationship sub-scores were also correlated with contraceptive use at 1-2 months follow-up (OR=3.2, 95% CI: 1.1-9.4). Alpha for the full scale was 0.92; subscale alphas ranged from 0.76-0.91. FGD findings from India and Ethiopia are currently being analyzed and women's preferences for contraceptive counseling will be presented.

**Conclusions:** The QCC scale was found to be valid and reliable for use in Mexico. Qualitative findings from India and Ethiopia will guide adaptation for those countries. The QCC scale is designed to help health systems and researchers better understand and monitor clients' experiences with contraceptive counseling.

# Chetty, Rohit SURVIVORS - a documentary about Restorative Justice

Context & Setting: At our hospital and clinic, we meet many patients who have been victims of violence, who have lost loved ones to violence. This results in significant depression, anxiety, PTSD which is not sufficiently addressed and treated. Maybe some will see a therapist who they talk to weekly at the most, but their suffering continues and often family and friends don't want to hear about their pain. Restorative Justice offers different ways of dealing with this via support groups, and empowering victims to deal with the aftermath of a crime when working within the legal system to seek justice. It also provides an opportunity for victims to share their stories with criminals allowing them to see how family members are affected long after a crime has been committed. Finally, some members have gone on to meet the actual offender in the crime to ask unanswered questions, explain how it affected them, and give the offender a chance to offer an apology.

**Setting/Population:** My project is a documentary film to share with other victims and offenders to offer a source of healing not offered within the current legal and health care system. This can be shown to victim support groups, youth centers, juvenile hall, prisons, probation centers. Intervention/Study Design: I met 3 of these victims who are involved with Restorative Justice, interviewed them and made a documentary film.

**Outcome/Results:** I learned that victims who have been suffering for years with emotional pain, have obtained healing from sharing the stories regarding the murders of their loved ones and how it affected them. I also learned the youth offenders they share their stories with are very interested to hear what they have to say, and learn about the victims who are affected beyond just serving time.

**Conclusions:** Restorative Justice allows victims of violent crimes to heal by meeting other victims, by sharing their stories, and offers criminals a chance to emotionally connect with victims of crimes.

Chirinos C,\* Willard-Grace R, Huang B, Wolf J, DeVore D, Lewis, E, Tsao S, Hessler D, Su G, Thom D

Effect of health coaching on inhaler technique: results from a randomized controlled trial of health coaching for urban underserved patients with chronic obstructive pulmonary disease

**Context & Setting:** Chronic Obstructive Pulmonary Disease (COPD) is the 3rd leading cause of death in the U.S. Socioeconomically disadvantaged patients bear a disproportionate disease burden and many do not make effective use of inhalers to manage their illness. This study assesses the efficacy of a health coaching model to improve guideline-based prescribing patient technique for using inhalers.

**Setting/Population:** 192 low-income English- or Spanish-speaking patients at least 40 years of age, with moderate to severe COPD at 7 primary care practices serving low income, urban adults.

**Intervention/Study Design:** Randomized-controlled trial of 9 months of health coaching versus usual care. Patients randomized to the intervention arm received a health coach who reviewed their use of inhalers on multiple occasions and provided individualized feedback to improve their technique. The health coach also facilitated review of the care plan by a pulmonary nurse practitioner specialist, who

identify positive and negative influences, facilitators and barriers to providing abortion care.

**Setting/Population:** Qualitative study of recent graduates of an urban family medicine residency in the northeast US with an opt-out abortion curriculum.

**Intervention/Study Design:** Individual recorded interviews were conducted with two classes of graduating residents until data saturation was reached. Data was coded and interpreted by both authors using the template analysis method.

**Outcome/Results:** Twenty residents completed interviews. Most trainees had limited or no abortion exposure prior to residency but were open to learning abortion care. By graduation, residents reported confidence in providing options counseling for unintended pregnancy. Overall, residents felt more comfortable providing medication abortion than aspiration abortion. Many reported feeling less emotional reaction to medication abortion and noted more technical and logistical barriers to learning aspiration abortion. Logistical barriers impede integration of medication abortion into practice for many, but were perceived to be less difficult to overcome than barriers to aspiration abortion integration. All participants agreed abortion care fits into the scope of primary care. Due to a variety of barriers, few of those who had not previously planned to become abortion providers after graduation incorporated it in their practice.

**Conclusions:** Abortion training prepared residents to counsel women with unintended pregnancy, but numerous barriers inhibit integration of abortion care into practice. Given limited abortion training resources and fewer perceived barriers to medication abortion provision, family medicine residencies may consider focusing training on medication abortion.

### Kong, A. \*; Goldstein, J.; Chandler, P. Trends of attempted home births and out-of-hospital births at natividad medical center 2014-2017

**Context & Setting:** Currently out-of-hospital births are on an upward trend, with the United States seeing an estimated 80% increase. However, due to a multitude of reasons, such as dangers for mom or baby, pain management, or a necessity for medical intervention, they are then transferred to the hospital for further management. To show trends at Natividad Medical Center are similar to California trends as well as national trends in attempted home births and out-of-hospital births.

**Setting/Population:** Primarily Monterey County women who initially opted for a home birth and then was brought to Natividad Medical Center in Salinas, California for actual delivery.

**Intervention/Study Design:** To show trends via retrospective comparative study comparing trends of hospital transfers from attempted home births and out-of hospital-births at Natividad Medical Center with recent trends and findings on a state and national level. We were able to generate a list of patients who were hospital transfers from an attempted home birth from required questions on the obstetrics history and physical. Inadvertently, we were also able to generate a small sample size of all patients who unintentionally had out-of-hospital births.

**Outcome/Results:** 15/18 were nulliparous. 17/18 had never delivered vaginally. 3/18 had a 3rd or 4th degree vaginal tear. 3/18 required vacuum or forceps assistance. 7/18 required a cesarean section. 6/18 eventually developed chorioamnionitis. However, our statistics at Natividad Medical Center are not statistically significant as our sample size was quite small. To evaluate further, more education and care around answering the specified question on the obstetrics history and physical would be required to be able to generate a larger sample size.

**Conclusions:** Although a small sample size, the trends of women who came to the hospital after attempting a home birth were largely similar to state and national trends.

# Holt K\*, Zavala I, Quintero X, Barge S, Patel B, Gebrehanna E, Hessler D, Langer A Improving measurement of client experience with contraceptive counseling to ensure quality of care and fulfilment of human rights in Mexico, India, and Ethiopia

**Context & Setting:** Characterizing individuals' experiences with contraceptive counseling through robust measurement is critical to improving quality of healthcare and ensuring human rights are fulfilled. However, existing tools for measuring client experience in low and middle income countries fall short in covering the range of issues relevant for ensuring positive experiences, and have not been developed or tested for use in specific country contexts. We developed the Quality of Contraceptive Counseling (QCC) scale to fill this gap.

**Setting/Population:** This research was conducted in Mexico (Mexico City and San Luis Potosi), India (Gujarat), and Ethiopia (Addis Ababa) among women who had experience communicating with health care providers about contraceptive methods.

**Setting/Population:** Staff at seven California community health centers participating in a one-year learning collaborative.

**Intervention/Study Design:** Mixed methods prospective observational design. We conducted baseline interviews with seven project leads and a baseline survey with 274 staff and providers.

**Outcome/Results:** Key themes identified in the baseline interviews include the fact that participating health centers are convinced of the need to implement these interventions but are not certain how to carry out the interventions. Key knowledge gaps include how to best implement screening, how to capture the data in EHRs, how to develop partnerships with social services organizations, how to manage and track referrals to outside partners, how to integrate these new activities into already busy workflows, and how to evaluate project impacts. In the baseline surveys, 94% of respondents agreed or strongly agreed that it is CHCs' role to address patients' SDH; and 91% agreed or strongly agreed that being able to address patients' SDH increases their satisfaction with the care they provide. Three quarters of respondents agreed or strongly agreed that their clinic had the resources and capacity to help connect patients with services and resources to address SDH. Ninety percent felt somewhat or very confident in their own ability to help patients address social determinants.

**Conclusions:** In this group of seven California CHCs, survey data indicate staff and providers believe they and their clinics and have the capacity to address patients' SDH, however interviews with project leaders suggest gaps in capacity exist.

# VABLE AM\*, ENG C, MAYEDA ER, BASU S, MARDEN JR, HAMAD R, GLYMOUR MM. EARLY-LIFE SOCIOECONOMIC STATUS AND LATE-LIFE DISPARITIES IN MEMORY AND DEMENTIA RISK AMONG US MILITARY VETERANS AND NON-VETERANS

**Context & Setting:** Adverse childhood socioeconomic status (cSES) predicts higher risk of memory loss and dementia in later life. Interventions to offset childhood socioeconomic adversity may alleviate these health disparities. Veterans of U.S. wars, including veterans of current conflicts, are eligible for educational and economic benefits which may offset cSES disadvantage and thereby reduce health disparities. We test whether cSES disparities in late-life memory and dementia are smaller among veterans compared to non-veterans.

**Setting/Population:** Data came from U.S.-born men in the 1995-2014 biennial surveys of the Health and Retirement Study (N = 7,916, born 1928-1956, contributing N = 38,381 cognitive assessments). **Intervention/Study Design:** Childhood SES was represented by mother's educational attainment. Memory and dementia risk were assessed with brief neuropsychological assessments and proxy reports. We examined whether the relationship between cSES and cognitive function was different among veterans compared to non-veterans using interaction terms. We employed linear (memory) or logistic (dementia risk) regression models with interaction terms to test whether military service modified the effect of cSES on memory or dementia risk, adjusting for age, race, birthplace, and childhood health.

**Outcome/Results:** Low cSES was associated with worse memory than high cSES (i¢ = -0.07 SD; 95%CI: -0.08, -0.05; p < 0.0005), and veterans had better memory than non-veterans (i¢ = 0.03 SD; 95%CI: 0.02, 0.04; p = &lt; 0.0005). In interaction analyses, cSES disparities in memory were smaller among veterans compared to non-veterans (difference in disparities = 0.04 SD; 95%CI: 0.01, 0.08; p = 0.006). Patterns were similar for dementia risk.

**Conclusions:** Disparities in memory by cSES were smaller among veterans compared to nonveterans, suggesting military service and benefits partially offset the consequences of childhood socioeconomic adversity on late-life cognitive outcomes. These results have implications for how military service and related benefits are implemented for veterans of ongoing U.S. conflicts, as well as more general implications for reducing health disparities by intervening on socioeconomic status in early adulthood.

# Rienks, J.\* Remy, L. Shatara, A. What is happening to our youth? Trends in emergency department visits from 2005-2014 and hospitalizations from 2003-2014 with a mental health diagnosis in California.

**Context & Setting:** The mental health and wellbeing of our youth is an important public health issue as mental health disorders during childhood are associated with increased risk of adult mental health disorders. In 2010, suicide was the second leading cause of death for youth ages 12-17. We will describe mental health trends for California's population ages 15-24. California, the nation's most populous state, monitors mental health indicators so we can implement appropriate interventions.

**Setting/Population:** We used the AHRQ Clinical Classification System to search hospital discharge (2003-2014) and emergency department (ED) data (2005-2014) to identify any mental health diagnosis (MHD) for youth ages 15-24.

Intervention/Study Design: Searching over\_all diagnoses, a patient could have 1 to N conditions,

e.g., both substance use (SU) and self-injury. Denominators were State and county-level population estimates from California's Department of Finance. We calculated 3-year rates per 100,000 with confidence intervals, overall and for race/ethnic groups (White, Hispanic, African American, and Asian/Pacific Islander). JoinPoint software evaluated trends for statistical significance.

**Outcome/Results:** Comparing 2003-2005 to 2012-2014, rates of hospitalizations with a MHD increased 32% from 1,114 to 1,473, and significantly increased for all race/ethnic groups. Mood disorders had the highest admission rate (849), accounting for 58% of MHD admissions, followed by SU (rate = 779, 53% of admissions). During 2003-2005, self-injury accounted for 8% (rate = 433) of MHD admissions, but by 2012-2014 accounted for 25%, a 365% increase. During 2012-2014, admissions with a co-occurring diagnosis (rate = 525) constituted 36% of MHD admissions. For admissions with a SU diagnosis, alcohol and cannabis rates were roughly equal in 2003-2005. By 2012-2014, alcohol admissions had increased 42%, while cannabis admissions increased 122%. Cannabis admissions constituted the largest volume (28%) and rate (408) of admissions with a SU diagnosis. In the ED, visits with a cannabis diagnosis increased 308%, although the rate (490) is less than the rate of visits with an alcohol diagnosis. There are significant disparities in rates of MHD admission by race/ethnicity and geographic region.

**Conclusions:** There are alarming increases and disparities in rates of MHD admissions and ED visits, particularly for self-injury, which demand immediate attention from the public health community.

Knox M,\* Willard-Grace R, Huang B, Grumbach K. Self-identification as an Underrepresented Minority in Medicine (URM) and perceptions of clinic teamwork among primary care clinicians and staff

Context & Setting: The System Transformation Evaluation Project (STEP) is an annual survey of work experience measures among UCSF and San Francisco Health Network (SFHN) primary care clinics. Both health systems promote the value of a diverse workforce, however little research explores the relationship between workforce diversity and perceptions of primary care clinic teamwork. Our analysis takes advantage of a novel dataset that for the first time includes self-identification of URM, acknowledging URM status as an important component of work experience.

**Setting/Population:** Approximately 950 clinicians and staff at more than 20 UCSF and SFHN primary care clinics responded to the STEP work experience survey, fielded March 2018.

Intervention/Study Design: The survey provided a standard URM definition and asked clinicians and staff to self-identify ("yes" or "no"). Teamwork was assessed with the statement, "The group of staff and providers I work with most regularly work well together as a team" (strongly disagree, 1, to strongly agree, 10). Teams were classified as structured if the respondent reported working with the same team member or a small group; teams were classified as unstructured if the respondent reported rarely working with the same team member or small group. We will use hierarchical linear regression models to assess how perception of clinic teamwork varies by 1) self-identified URM status; 2) clinic concordance of URM status between clinicians and staff, classified by high/low median splits; and 3) working in structured teams.

**Outcome/Results:** Preliminary data suggest that about one-third of clinicians and staff identify as URM. (Data collection is in the final week at abstract submission time). We predict that self-identification as URM and clinic discordance between clinician and staff status as URM will be associated with lower perceptions of clinic teamwork. We also predict that structured teams will be associated with higher perception of clinic teamwork.

**Conclusions:** Our analyses provide important insight on workforce diversity in two local health systems. Individuals' experiences as URM may shape their ability to connect with colleagues and establish supportive work environments. Consistent team structures may support endeavors to enhance working relationships, particularly for those who identify as URM.

Bowyer, V\*; Hessler, D; Willis, A; Rouse Iñiguez, J; Fisher, L; Potter, M. Diabetes self-management support for patients with type 2 diabetes in community health centers. What are patients' priorities and areas of greatest need?

**Context & Setting:** Although critical to managing chronic illness, many patients struggle to meet self-management goals. Connection to Health (CTH) is an electronic self-management support (SMS) program that informs patient-provider encounters by identifying SMS needs, patient priorities, and goal-setting. Here we examine the frequency of baseline patient SMS needs, priorities and goals.

Setting/Population: A cluster-randomized trial to evaluate two strategies for implementing SMS in 6

### Alexander, S.\*; Singh, A.\*; Valdez, J.\*; Fernandez, L; Wortis, N; Coffa D Reducing the risk of opioid overdose deaths through naloxone prescribing at the Zuckerberg San Francisco General Family Health Center

Context & Setting: Prescription opioid overdose deaths are an increasing problem across the United States and in San Francisco. From 1999 to 2008, prescription overdose related deaths increased by four-fold in the United States. Furthermore, in San Francisco during 2010 - 2012, 93% of opioid overdose deaths involved prescription opioids. Currently, 283 patients at the Zuckerberg San Francisco General (ZSFG) Family Health Clinic (FHC) are on chronic opioid medication and are at risk for opioid related overdose death. One measure to counteract this growing problem is to co-prescribe intranasal naloxone which reverses the effects of opioid overdose and can save lives. However, there are several barriers to patients accessing naloxone, including low prescriber rates and stigma regarding naloxone. Only 41% of FHC chronic pain patients taking opioids have an up-to-date naloxone prescription. The ZSFG FHC hopes to increase naloxone availability and thereby prevent opioid overdose deaths.

**Setting/Population:** We conducted this study with providers, residents, nurses and pharmacists associated with the ZSFG Family Health Center, all of whom provide care for chronic pain patients on opioids.

**Intervention/Study Design:** Through a course of interviews conducted with the providers listed above, as well as meetings with the FHC Quality Improvement (QI) Leaders, we constructed a systematic fishbone analysis to categorize the key barriers to naloxone prescribing. We identified possible points of intervention based on this analysis, and utilized an Effort vs. Impact matrix to propose achievable interventions.

**Outcome/Results:** Based on this Fishbone Analysis and our qualitative interviews, we have identified several main barriers. In the ZSFG FHC, the chronic pain template and pain agreements do not include naloxone prescription. In addition, nurses are not trained to provide education to chronic pain patients about naloxone, and pharmacists are limited in time and resources to provide naloxone education and training.

**Conclusions:** We concluded that one low-effort high-impact intervention would be to revise the pain agreement to include a naloxone prescribing prompt. We are also going to try targeted email reminders. We aim to increase naloxone prescribing rates among providers at the ZSFG FHC by 10% by September 2018 using these approaches.

### Mirrer, M\*, Dietrich, M, Yang, J., Uy-Smith, E. Geriatrics at the Family Health Center (FHC): lessons in team-based quality improvement

**Context & Setting:** Caring for older adults remains a priority in the practice of family medicine. Each week, attending geriatricians precept residents at the FHC. However, there are often too few geriatric patients for residents to see during these clinic sessions. As such, we set out to improve the scheduling of geriatric patients with residents.

**Setting/Population:** This project was developed at the FHC in San Francisco. We worked closely with members of an interdisciplinary team composed of FHC clerical and administrative staff, as well as residency program faculty. The project focused on the scheduling of FHC patients 65 years of age and older with second-year Family Medicine residents in a Tuesday morning clinic, supervised by an attending geriatrician.

**Intervention/Study Design:** We conducted a series of interdisciplinary team meetings to review the current scheduling process and barriers to ensuring appropriate patient attendance. Clinic attendance was measured quarterly. Through multiple PDSA cycles and revisions, a new standardized scheduling workflow was adopted by the clinic and implemented in February 2018.

**Outcome/Results:** Nine residents rotated through the FHC Geriatrics clinic from July to February 2018. Over the course of the month-long rotations, the residents saw an average of ten patients in this particular clinic, 40% of whom were older adults. After the implementation of the new workflow, seven out of the eight patients seen by the resident were older adults (88%).

**Conclusions:** Age-appropriate scheduling of geriatric patients into resident clinics increased by nearly 50% with the implementation of a new standardized workflow. Based on the success of the pilot, we plan to continue working with our interdisciplinary team to further improve access to care for older adults and resident education in clinical geriatrics.

PNP for improving guideline-based treatment, particularly for smoking cessation and inhaler therapy.

### Nothnagle, M\*, Greenberg, S. An "invaluable skill": reflections on abortion training and post-residency practice

Context & Setting: To explore family medicine residents' experiences with abortion training and

Shatara, A.\*; Reinks, J.; Remy, L.

The results of a statewide survey to determine the capacity and needs of regional maternal, child, and adolescent health programs to address issues in maternal mental health.

Context & Setting: Research has shown that maternal mental health (MMH) disorders are very prevalent among women of reproductive age and can have a negative effect throughout the life course. Hospital admissions and emergency department visits with a mental health diagnosis have increased over time, specifically among pregnant women and women of reproductive age (15-44), and disproportionately among African Americans. In service of our ongoing work to improve MMH, we surveyed Maternal, Child, and Adolescent Health (MCAH) staff from all of California's 61 Local Health Jurisdictions (LHJs) to assess what MMH activities have been implemented within their regions. We hoped to learn what resources, connections, and partnerships have been developed already and what resources are still needed.

**Setting/Population:** The survey was sent to MCAH staff from all 61 LHJs in California. MCAH staff roles include nurses, physicians, community health workers, and other public health professional classifications. LHJs are representative of all regions in California and their MCAH divisions serve the most vulnerable and at-risk populations, especially populations that experience social and economic disparities.

**Intervention/Study Design:** This survey was created in SurveyMonkey with input from State MCAH as well as some LHJ partners before dissemination. Data were analyzed using SurveyMonkey's in-depth analysis feature.

Outcome/Results: In total, 75 MCAH staff took the survey, representing 52 out of the 61 LHJs in California (85%). Almost half (48%) of respondents had never conducted a MMH needs assessment. 76% of counties are participating in a local collaboration. Local Mental Health Services Act (MHSA) funding is only being used in 31% of LHJs to fund MMH programs. Over half (59%) of the LHJs do not provide training for providers on MMH, but over 86% of the LHJs that do train include how to screen and refer women for MMH disorder. When asked if there are adequate MMH treatment resources in their LHJ, only 1 respondent answered "yes" the remainder said "no" or were unsure.

**Conclusions:** The results of the survey solidifies our research and program planning in response to the rising crisis of MMH disorder in California and provides a valuable needs assessment for county-level intervention moving forward.

# Tapley, A\*; Brode, E; Johnston, R; Vener, M The times they are a changing: Precepting in the block versus longitudinal clerkship model

**Context & Setting:** For three decades most UCSF FCM preceptors taught third-year clerkship students in a block rotation format; however, in 2017 the clerkship evolved into a longitudinal model. Longitudinal precepting requires different skills, orientation and expectations than teaching in a block rotation. We sought to explore how to best support teachers and learners in a longitudinal format.

Setting/Population: Third-year UCSF students and their FCM preceptors

**Intervention/Study Design:** We reviewed teaching evaluations from 160 third-year UCSF students about their FCM preceptors, including numerical (Likkert) scores and written open-ended comments. We also conducted structured interviews with 25 community-based preceptors about what support they needed to precept in a longitudinal model. Preceptors' sites included DPH clinics, Kaiser-Permanente, Lakeshore, One Medical Group, Family Health Center, and East Bay safety-net clinics.

**Outcome/Results:** Preceptors identified strengths of the longitudinal model as working with students all year, developing stronger relationships, and seeing student progress. Common challenges cited were reducing patient access and lack of student/preceptor/patient scheduling flexibility. Even experienced preceptors requested more guidance about what to expect their students would know by various times of the year and how to support student progress longitudinally. Preceptors felt that monthly emails ("My Student This Month") reminding preceptors of what skills their student should be working on currently were extremely useful in supporting appropriate teaching, feedback and evaluation. Numerically, students' evaluations of preceptors were similar in the longitudinal and block formats. However, written comments highlighted longitudinal preceptors' strengths as role models. Most common areas for improvement suggested by students were for longitudinal preceptors to provide increased direct observation and feedback (although this area overall was improved from the block model).

**Conclusions:** Longitudinal precepting requires additional skills even for experienced preceptors. Preceptors need to recognize how clinical skills development progresses over the year, and how this can be individualized for each student. Monthly emails to preceptors ("My Student This Month") provide "just in time" information to preceptors tailor their expectations and teaching for the appropriate time of the year. For the future, additional faculty development workshops and innovative skills sessions may add value to our ability to individualize education.

East Bay Community Health Centers. 304 adults with type 2 diabetes were selected by practices to receive the intervention.

Intervention/Study Design: Patients completed an electronic health survey about their self-management. Automated algorithms, based on national guidelines and validated scoring, flagged problem areas for patients and clinicians, and gave recommendations for change. Patients prioritized up to two areas for discussion with their clinician before collaboratively agreeing a health goal and developing an action plan. Areas of assessment included: BMI, diet, physical activity, medication adherence, alcohol and tobacco use, stress, health-related distress, depression, and social needs. Motivation around making a health change was also assessed.

**Outcome/Results:** On average, patients reported needs in 7 (SD=2.54) of the 15 self-management areas. The most frequent areas included: BMI (83.9%), vegetable intake (74.4%), physical activity (69.3%), and health distress (59.2%), and among those with a given need these same areas were most often prioritized by patients. While social needs (including food and housing insecurity; 48.6%) and health distress (60.8%) were common, they were among the least often patient prioritized problem areas. Action plan goals were not always selected from the areas of highest self-management need (26.9% were selected from areas of moderate concern). Around half of patients (53.3%) reported ambivalence around making a health change, while 39.5% reported being highly motivated.

**Conclusions:** Most patients living with chronic illness struggle across a number of SMS areas. While health-related distress and social needs are high burdens, they were among the least likely to be prioritized relative to other areas. Even the most frequently prioritized areas were selected by less than half of patients, suggesting large variability in patient perspectives that require consideration when setting goals.

# Huang, B\*; Sharma, A; Willard-Grace, R; Grumbach, K. Patient engagement bright spots in diverse settings across the country

Context & Setting: Patient engagement has been gaining traction in recent years. The Patient Advisory Council (PAC) Collaborative within the San Francisco Health Network, which sought to initiate/sustain PACs at all 14 primary care health centers, as well as the success of the 5-webinar series on patient engagement conducted by the Center for Excellence in Primary Care and Center for Care Innovations demonstrate a growing interest in this topic. However, given that many primary care providers are not in an urban setting with a strong county or academic system, the need for resources on patient engagement in other settings was identified. This project identifies and shares innovative strategies for patient engagement at the organizational level in diverse practice settings.

Setting/Population: 12 sites in North America; 5 rural, 5 urban, and 2 suburban sites.

Intervention/Study Design: Convenience sampling was used to identify a list of practices representing different regions and practice characteristics. Once a practice was identified, each practice was screened prior to the interview to ensure some level of patient engagement was present. 21 interviews were conducted from 2016 to 2017. Using Carman's framework of patient engagement, 12 sites were considered to have met the organizational level of patient engagement. Case studies have been drafted and are in the process of being edited, reviewed, and verified by the interview team and sites.

**Outcome/Results:** Of the 12 sites, 5 identified as independent/private practices, 4 as public clinics, and 3 as part of an academic health system. There was variation in how patient engagement was perceived and operationalized. Some sites reported short term engagements, such as having a patient engagement day or surveying all patients on a random day, whereas other sites had longer term arrangements (PACs, Patient Ambassadors). The degree of involvement also varied, ranging from helping to decide communication strategies with patients to determining what services should be provided and how that should occur.

**Conclusions:** These case studies dispel misconceptions that organizational-level patient engagement is not possible in small, private, or rural practices. Rather, it seems that patient engagement strategies can be tailored to the capacity of the clinic and needs of the patient community.

# FRIEDMAN R\*, SCHIEBERL J, JOSEPH M, HISEROTE P\*. Resilience and recovery: the role of telemedicine in primary care access and physician wellbeing after disasters.

**Context & Setting:** Routine ambulatory care is the foundation of community health, and family physicians are fundamental to that care. During disasters, primary care access may be jeopardized by closed clinics, forced evacuations, and lack of onsite medical personnel. This can lead to delayed care,

exacerbated chronic conditions, and higher costs of care; furthermore, personally affected physicians may struggle, affecting capacity and quality of care. Telemedicine has potential to expedite post-disaster recovery, reduce poor health outcomes, and foster resilience.

**Setting/Population:** Santa Rosa experienced disastrous wildfires in October 2017, resulting in 42 deaths, the loss of 4658 Santa Rosa homes, and widespread evacuations. Over 200 employees at KP Santa Rosa, including 78 KP physicians, lost their homes to fire. All KP facilities in Santa Rosa were evacuated and closed for 2 weeks. During this time, KP physicians provided access to care through responses uniquely possible in our integrated system, including telephone appointments, secure messaging, and expanded clinics nearby.

Intervention/Study Design: Starting the day of the fires, a command center was set up to strategize staffing for patient access. Physicians utilized the EMR remotely to refill meds and respond to secure messaging. An expansion clinic was set up with increased telephone visits to meet the need of evacuated patients. Physician staffing was established day by day, and no evacuated physicians were required to work. Data regarding physician wellbeing and job satisfaction were obtained from an annual survey conducted 4 months after the fires.

**Outcome/Results:** We describe workflows and innovations developed to maximize provider capacity and patient access. Chart review is underway to quantify the extent to which telemedicine facilitated access needs during the immediate post-disaster period. Preliminary results suggest improvement in physician wellbeing and job satisfaction compared to last year.

**Conclusions:** Telemedicine is used worldwide to facilitate disaster response. KP Santa Rosa's response to the October fires demonstrates telemedicine's potential to rapidly improve continuity of care in the face of a disaster. Incorporating increased telemedicine into routine primary care may help prepare for future disasters,. In addition, use of telemedicine may diversify modalities of care and improve physician well-being and job satisfaction.

Protsenko E\*, Tsai N\*, Velazquez A\*, Consunji M, Lee J, Kern C, Mo M, Smith B, Wortis N, Chase J. Improving patient care experience on the Zuckerberg San Francisco General Hospital Family Medicine Inpatient Service through designing and implementing a hospital knowledge handout for patients

Context & Setting: In 2015, Zuckerberg San Francisco General Hospital (ZSFG) scored in the bottom quartile for all hospitals in the United States on the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) patient satisfaction survey. In order to better understand obstacles to patient satisfaction, ZSFG's Family Medicine Inpatient Service (FMIS) has administered a qualitative patient satisfaction assessment at the time of discharge since February 2016. Although most patients report positive feedback, there are still gaps in satisfaction stemming from inadequate communication regarding basic information about their hospital stay and the availability of services intended to make their stay more comfortable. In order to address these gaps and improve patient-provider communication, we created a hospital knowledge handout with answers to the most frequently asked questions and concerns among FMIS patients.

**Setting/Population:** The setting is the Family Medicine Inpatient Service of Zuckerberg San Francisco General Hospital.

**Intervention/Study Design:** With input from multidisciplinary inpatient team members and ZSFG leadership, we developed a one-page, double-sided hospital knowledge handout addressing common complaints identified through the FMIS patient satisfaction surveys. The handout includes information on visiting hours, how to use the room remote, selection of menu options, availability of showers, finding religious and spiritual support, and how to use the telephone in the room. To increase patient accessibility, the handout was written in easy to understand language and will be translated into Spanish and Chinese.

**Outcome/Results:** We have conducted small-scale pilot studies distributing the handout to patients on the FMIS inpatient service. The overall reaction to the handout by patients and staff was positive, and first-time patients at ZSFG found the sheet to be particularly helpful. We plan to widely distribute the finalized handout to the entire Family Medicine Inpatient Service in the coming month. The ZSFG Patient Care Experience team plans to adopt the handout for hospital-wide distribution later this year.

**Conclusions:** Based on the results of the patient satisfaction assessment conducted by the FMIS team at ZSFG, we designed a short hospital knowledge handout in simple language. We hope distribution of this handout to all inpatients at ZSFG will improve patient satisfaction.

management.

### \*Kong; A., Zaro, C.; Goldstein, J. Group prenatal visits for residency education in family medicine at natividad medical center

**Context & Setting:** Group prenatal visits are gaining in significance as an alternative approach to outpatient care. They are also becoming more popular with residents who are searching for more educational and meaningful patient experiences and are known to increase resident interest in delivering prenatal care after residency (Barr, Tong, and LeFevre 2017). This study aims to show that the group prenatal visits are a beneficial way to improve resident comfort in caring for prenatal patients in a full-scope family medicine residency.

**Setting/Population:** Single-site, observational study. Set at the Monterey County Health Department/ Natividad Family Medicine Residency Clinic, with 6 monthly group prenatal visit sessions, 2 per residency year that is facilitated by residents and faculty. The group consists of a cohort of fifteen prenatal patients with similar EDD, and five first year family medicine residents.

**Intervention/Study Design:** Residents were given a survey assessing their confidence levels discussing prenatal topics such as nutrition, breastfeeding, contraception, labor and delivery knowledge, and postpartum care and prenatal visits before the group visit experience and after.

**Outcome/Results:** Overall, of the 11 resident that were surveyed before and after their participation in the group prenatal sessions, we were able to see a positive trend in their learning and comfort levels in various discussion topics surrounding pregnancy as well as a providing prenatal care in the routine prenatal care visit. Residents appear to be more interested in providing maternity care post-residency after this experience.

**Conclusions:** In residents surveyed on their comfort with prenatal care before and after participation in group prenatal care, there was a trend toward higher comfort after the experience. Residents also expressed more interest in providing prenatal care after residency which is consistent with available literature.

### James, J\*

The influence of urban greenspace on health and the review of resources available in San Francisco

**Context & Setting:** There is growing research exploring the impact of nature, particularly urban greenspaces, on health. Urban greenspace includes parks, community gardens, staircases, pathways and open spaces within a city. We conducted a literature review of clinical studies investigating the relationship of urban greenspaces on health. Using San Francisco as a model city, we then researched its urban greenspaces as well as the availability of organizations that promote greenspace engagement, with the goal of creating an accessible guide of resources.

Setting/Population: This literature review focused on urban populations across the world within the last 15 years.

Intervention/Study Design: Relevant articles were identified using the Cochrane Library and PubMed. Only studies utilizing urban greenspaces were included. Database entries were searched from January 2003 to January 2018. Search terms used included greenspace, park, outdoors, exercise, health, chronic illness. Keywords were searched individually and grouped. Additional articles were identified from the bibliographies of included articles. Urban greenspaces and organizations in San Francisco were searched through San Francisco Park and Recreation, Golden Gate National Park Service, and San Francisco Public Health Department websites.

**Outcome/Results:** There is evidence that the presence of urban greenspace improves physical and mental health urban of residents. Greenspace is associated with reduced cardiovascular disease, obesity, depression, anxiety, and stress by encouraging healthier behaviors such as physical and leisure activities. San Francisco has the most urban greenspace than any other municipality in the US with more than 220 public parks, 671 staircases and 70 miles of hiking trails. Many of these greenspaces can be accessed via public transportation or bike and are free to access for residents. There are several no or low-cost organizations within San Francisco whose mission includes promoting the use urban greenspace to improve health – UCSF's Center for Nature and Health, Healthy Parks, Healthy People: Bay Area, Bay Area Nutrition and Physical Activity Collaborative, and The Shape Up SF Coalition.

**Conclusions:** The presence of urban greenspaces provides benefits in physical and mental health for residents. San Francisco hosts abundant and diverse offerings of urban greenspaces for residents. There are numerous San Francisco based organizations committed to the use of urban greenspace to improve health.

pling techniques: criterion, maximum variation, and snowball sampling. Interviews will be audio-recorded, transcribed, and analyzed using a deductive-inductive directed content analysis approach, coding for a priori and emergent themes.

Outcome/Results: This is a works-in-progress abstract with no results to date.

Conclusions: This is a works-in-progress abstract and conclusions have not yet been derived.

# Deutsch, M\*; Reisner, S, Hughto, J, Pardee, D, Potter, J, Cavanaugh, T, Peitzmeier, S Interactions between sexual behaviors and cervical high-risk human papillomavirus infection risk in a transmasculine sample

**Context & Setting:** Transgender men are 37% less likely to be current for cervical cancer screening than cisgender women, and are 10 times more likely to have an inadequate specimen upon screening, necessitating a repeat test. Transgender men are also 20% less likely to follow up for a repeat test than cisgender women. Transgender men have reported that the invasive nature of cervical cancer screening is a deterrent to being tested. Cervical infection with a high-risk strain of the human papillomavirus (hrHPV) is the cause of 99.7% of all cervical cancers. While hrHPV is sexually transmitted, no data exist examining relationships between sexual behavior history and current risk of cervical hrHPV infection. If a relationship were found to exist, an assessment of pre-test likelihood of infection could be calculated to inform shared decision making with patients to understand their actual risk before decided whether to undergo screening, (approach (self-collected hrHPV vs provider-collected cytologic and hrHPV co-testing) and at what frequency to undergo subsequent screening.

**Setting/Population:** Our study aimed to examine the relationship between history of penile sexual contact and risk of current cervical hrHPV infection in a sample of 131 transmasculine participants in the Transmasculine Sexual Health Collaborative based at Fenway Health in Boston, MA, USA.

Intervention/Study Design: Clinician-sampled hrHPV probes were obtained from each participant. A brief sexual behaviors questionnaire was completed by each participant. Bivariate logistic regression was then used to determine the association between vaginal receptive sex with a penis in the past 12 months (vs no penile sexual contact) and the provider collected cervical HPV DNA test results.

**Outcome/Results:** Participants reporting receptive vaginal sex in the past 12 months were much less likely to have a current cervical hr-HPV infection than those reporting at least one such act in the same time period (OR = 5.06, p = 0.01).

**Conclusions:** Our data support a strong association between specifically receptive vaginal sex with a flesh penis and risk of infection with high risk human papillomavirus strains. Findings may support alternative approaches to screening in populations averse to, or with limited access to screening.

# Le Marchand, C \*, Flaxman, G WhatsApp with ankyloglossia? novel use of communication technology to increase resident experience with frenotomies

Context & Setting: Frenotomy, a procedure where an unusually tight lingual frenulum (ankyloglossia/tongue tie) is cut, is rare in the Kaiser Vallejo nursery, indicated only when it impairs an infant's ability to breastfeed. This procedure is required about once a month and many newborn rounding physicians do not practice it. Typically, affected newborns are scheduled for a frenotomy as an outpatient, delaying the benefits the procedure can provide for breastfeeding, such as improved infant milk intake and latch, and reduced pain for mothers (Geddes 2008, Seth 2013, Dolberg 2006, Buryk 2011). Due to the infrequency of this procedure, it can be difficult for residents at the Kaiser Napa-Solano family medicine residency program to gain enough experience.

**Setting/Population:** Our project involved nursery lactation consultants, family medicine residents and interested physician preceptors at Kaiser Vallejo.

**Intervention/Study Design:** We developed a communication system that allows our lactation consultants and physicians working in the newborn nursery to contact both experienced preceptors, as well as interested residents. We used a WhatsApp group, a multiplatform (phone and internet based) instant messaging service, to have real time communication between all interested parties.

**Outcome/Results:** We have successfully performed about one frenulotomy a month in the nursery, which has allowed interested residents to gain more experience in frenotomies and has improved service for our patients, expediting the procedure for them and improving their breastfeeding experience.

**Conclusions:** We pioneered an innovative use of free technology to improve patient experience, facilitate communication among a multidisciplinary team, and improve resident learning and experience around a rarer procedure. We have expanded this system to another procedure, miscarriage

# Golden, G\*; Brode, E; Hill-Sakauri, L; Vener, M. Reaching out to students "on the fence" about career choice: Increasing ambulatory family medicine fourth-year electives.

Context & Setting: In the pivotal year for residency selection, vibrant fourth-year family medicine electives help students advance learning, experience role modeling and envision a successful career in family medicine (FM). Students considering FM often have strong outpatient interests; ambulatory FM electives may help engage students who are "on the fence" about career choice. Unfortunately, constraints of cost, logistics and geography often make it difficult to develop robust ambulatory electives. Instead, students are frequently counseled to take non-FM electives and/or substitute inpatient electives. We sought to assess the number of fourth-year FM electives nationally that offered experiences in outpatient primary care, as well supporting interests such as women's health, sports medicine, etc. We also explored the association at UCSF between outpatient elective participation and matching in FM.

**Setting/Population:** UCSF fourth-year medical students

**Intervention/Study Design:** We reviewed FM elective participation and experiences for 160 fourth-year UCSF students/year from 2014-17 using Likkert-scale data and written open-ended questions. We also examined match rates in FM before and after addition of several fourth-year electives in 2014. For national data, we reviewed Visiting Student Application Services (VSAS) FM offerings.

**Outcome/Results:** Thirty-seven LCME-accredited US medical schools offer fourth-year FM electives. Of 420 FM electives available on VSAS, only 35 (8%) were specifically tagged as ambulatory/outpatient; 25(2%) sports medicine; 16(2%) community health; 8(1%) integrative medicine; 4(1%) geriatrics; 5(1%) women's health. At UCSF, 116 students participated in FM fourth-year electives (59 inpatient; 57 outpatient) from 2014-7. Eight ambulatory electives at seven sites included women's health, practice transformation, procedures, integrative medicine and community health. Factors influencing students' elective choice were: advisor recommendation, good fit, proximity, and interview rotation. Elective strengths were role modeling, increasing efficiency, and feeling like a family doctor. Approximately 60% of UCSF students completing FM electives ultimately match in FM. The number of UCSF matching in FM since ambulatory elective initiation was 12(2014), 24(2015), 13(2016) and 24(2017).

**Conclusions:** Although the majority of students considering FM careers are interested in primary care, only a minority of FM electives offer ambulatory experiences. Developing robust ambulatory fourth-year electives is challenging, but addressing this unmet need may provide pivotal experiences for students who are undecided about family medicine.

# GaleWyrick, S\*; Person-Rennell, N. In our hands year three: a primary care procedure elective teaches students the scope and role of family medicine

**Context & Setting:** Family Medicine (FM) offers many opportunities for office-based procedures, yet learners are rarely exposed to this aspect of FM until residency. We are in our third year of offering a primary care procedures elective for first year UCSF medical students. Course goals include 1) educate students about family physicians' roles in procedures; 2) explain the importance of providing procedures in a patient's medical home; 3) provide an opportunity for students to try hands-on simulation of procedures; 4) introduce first-year students to primary care faculty and resident role models.

**Setting/Population:** We are now in the third year of the elective. Year one, 32 medical students enrolled; year two, 27 students; year three, 25 students. Residents and faculty were recruited to teach.

**Intervention/Study Design:** Our procedures elective includes two classroom sessions and three procedures workshops. In year two, we added assigned reading and videos to prepare students for the workshops. In year three, we lengthened the workshop covering skin procedures. Workshops include a primary care case and discussion of how each procedure fits into the overall context of the patient-centered medical home. Procedures taught included: IUD and Nexplanon placement and removal, mole removal, incision and drainage, splinting and joint injection.

**Outcome/Results:** Quantitative and qualitative outcome data is collected annually using a preand post-elective survey. Topics assessed included: interest in primary care, interest in performing procedures, belief that family physicians should perform procedures, impact of resident role models, etc. When possible, we matched pre and post surveys. Results for year 3 will be collected and analyzed by the time of the Colloquium.

**Conclusions:** Providing students with an opportunity to learn about primary care procedures leverages students' interest in procedures with a chance to better understand the scope of family medicine and the medical home. In addition, engaging in a procedures elective provides a valuable oppor-

tunity to expose students to resident and faculty role models. We hope that this course is a model for other student electives that expose students to engaging aspects of family medicine during pivotal years in which they formulate their understanding of primary care and consider possible career opportunities.

# Dietrich, M\*; Krauss, K; McBride, T; Brode, E; Vener, M. Beyond see one, do one, teach one: Residents videotape their teaching and reflect.

Context & Setting: Immersed in clinical practice, Family Medicine residents can serve as dynamic, inspirational teachers for students as well as powerful near-peer mentors. Unfortunately, time constraints often limit our ability to provide residents with the skills development and feedback needed to optimally succeed as teachers. The culture of encouraging residents to "see one, do one, teach one" creates missed opportunities for residents to develop into mature clinical teachers. After learning teacher preparation skills longitudinally in residency, our third-year residents taught third-year clerkship students in required, case-based Family Medicine seminars. To support resident teachers, we developed a reflection curriculum in which residents were video-recorded teaching seminars.

**Setting/Population:** Seven third-year FCM residents and three chief residents taught in FCM clerkship seminars. Eighty UCSF students participated. Each seminar group included a resident facilitator, a faculty co-facilitator and nine FCM clerkship students.

**Intervention/Study Design:** Residents videotaped two segments of their teaching in a small group or physical exam teaching setting. Using structured reflection questions, residents observed their own performance and that of a resident peer. These dyads then gave feedback, reflected and worked to improve teaching.

**Outcome/Results:** We evaluated our curriculum using quantitative and qualitative methods. Residents completed a self-assessment of their skills before and after the intervention. Questions queried residents about their confidence in teaching, serving as a role model, and providing feedback. In addition, we examined student teaching evaluations of residents. We also surveyed faculty cofacilitators about the impact that they felt the resident teachers had made in each group.

**Conclusions:** Employing a model in which residents work in dyads, videotape their teaching, observe, reflect and incorporate feedback is simple and effective. This format is also sustainable because it does not require extensive faculty time. We are hopeful that this resident teacher curriculum will provide residents with a strong groundwork and motivation to continue to teach. Being an educator is part of being a family doctor; reinforcing teaching skills helps residents better teach learners, as well as patients, staff and other health professionals. By engaging residents as teachers, we aspire to create a cadre of skillful, engaged family physicians who are motivated to teach throughout their carreers.

# Goldfien, G\*, MacKenzie, T. Trial and improvement of clinical instruction between medical students at the UCSF Family Medicine Center at Lakeshore.

Context & Setting: New curricula often seek to expose early medical students to patient care, yet shortage of instructors and space are frequent limiting factors. Additionally, senior medical students have few opportunities for clinical instruction before residency, and early learners may gain distinct learning benefits from peer mentorship versus those afforded by attendings. Indeed, an analysis of peer mentorship in student-run free clinics found that MS4s enhanced the educational experiences of MS1s (Choudhury et al., 2014). Our pilot aimed to determine if pairing and instruction between early and late medical students in an outpatient clinical setting mitigates constraints on clinic space and instructor availability, while providing advantages for student teaching and learning.

**Setting/Population:** This project took place at the UCSF Family Medicine Center at Lakeshore. Approximately ten MS1-MS3 pairs and five attending family physicians participated in two trials of this project.

Intervention/Study Design: MS1-MS3 pairs and attending family physicians participated in two trials of this project. After favorable results in Spring 2017, a similar trial was repeated in Spring 2018 that included more guidance on structuring the encounters and teaching guidelines for MS3s. In both trials, MS1-MS3 pairs saw patients together, and presented to and saw patients with the attending. Students were encouraged to provide feedback to one another. Later, all participants were interviewed or surveyed to elicit feedback on feasibility and effectiveness of the program with regard to the stated objectives. Results were analyzed qualitatively for key themes.

Outcome/Results: Overall, attendings felt that this setup had no negative impact on clinic effi-

caregiver illness often led to groups even smaller than our initial 6 newborn cohort. We plan to address this issue in part by recruiting patients from an existing group model, our Centering Pregnancy program.

**Conclusions:** This pilot's benefits were clear and we are excited to move forward with new WCC groups in April 2018. Ultimately, we intend to broadly offer this opportunity to patients and providers to improve our patient and community health.

### Sharma, AE; O'Connor, N; Kanthi D; Donnell, D; Adler, B The educational impact of working with patient advisors in residency training: an assessment of two residencies

**Context & Setting:** Patient Advisory Councils, groups of patients who partner with clinic leadership to improve primary care delivery on the clinic level, are a growing means of promoting patient engagement. However, little is known about the impact of such programs on residency education or trainees.

**Setting/Population:** We are conducting an assessment of the impact of collaborating with patient advisory councils at two family medicine residencies; one in San Francisco and one in Malden, Massachusetts. Both sites are urban, safety-net clinics with a diverse and multilingual patient population. The San Francisco Residency has 15 residents per class and the Malden program has 8.

**Intervention/Study Design:** We are conducting a cross-sectional survey of resident trainees at both programs; we aim for a participation rate of 80%. This assessment will look at comparative perspectives of residents who have been exposed to working with an advisory council (PAC) versus those who have not. Residents will be categorized as "exposed" if they have presented to a PAC in-person or had formative feedback on a QI project from a PAC meeting. The survey will assess perception of patient engagement, confidence in ability to obtain patient feedback, and perceptions of feasibility/challenges to implementing patient engagement on a Likert Scale (1-5).

**Outcome/Results:** Analysis will be completed by May. We anticipate that overall residents will have a favorable view of clinic-level patient engagement and PACs, but that residents who have actually worked with a PAC will have a perception of greater feasibility and ease of obtaining patient input.

**Conclusions:** As residents learn how to promote patient self-management of individual disease conditions, they may also gain greater skills in clinic-level quality improvement initiatives and patient engagement through educational experiences working with PACs.

# Dianat, S.\*, Holt, K., Steinauer, J., Dehlendorf, C. Breaking the silence in the primary care office: Discussing abortion at the time of contraceptive counseling

Context & Setting: Abortion remains a segregated part of health care. Discussions on abortion between patients and generalist physicians have been absent or poorly conducted. Recent studies support that women want physicians to offer pregnancy options counseling when newly pregnant; moreover, women would find it acceptable to learn about abortion services in health visits when they are not pregnant. Physicians need guidance on when and how to discuss abortion with patients in a patient-centered manner. Intentionally and routinely discussing abortion in the primary care setting when the patient is not pregnant may reduce the gap between abortion care and the rest of medical care. The hypothesized downstream effects of such an intervention include reduced individual-level and community-level abortion stigma, increased physician comfort in discussing abortion, increased patient comfort in seeking subsequent care for unintended pregnancy, and improved quality of contraceptive decision making. We propose a qualitative study with the following objectives:

- To explore women's preferences around routine discussion of abortion in the context of contraceptive counseling in the primary care setting, when women are not pregnant
- To explore family medicine physicians' perspectives on and comfort with discussing abortion during contraceptive counseling
- Drawing from above findings, to propose an intervention consisting of strategies that will facilitate family physicians incorporating a discussion of abortion within contraceptive counseling

**Setting/Population:** Approximately 40 English-speaking women ages 18-45 and 20 family physicians will be interviewed. Patients and physicians will be recruited from family medicine residency clinics in California, focusing primarily on the sociopolitically contrasting regions of the Bay Area and the Central Valley.

Intervention/Study Design: The formative work to design the intervention will consist of qualitative semi-structured one-on-one interviews lasting approximately 60 minutes. Interviews will explore feelings, perceived implications, strategies, and anticipated barriers about discussing abortion as part of the contraceptive counseling encounter. Participants will be recruited using three purposive sam-

tion of teen pregnancy, STIs and domestic violence.

**Conclusions:** Community agencies provide new perspectives and approaches. They model how to build trust and strengthen patient-provider relationships. Physicians learn to be more responsive to the specific needs of the community by engaging with and learning from the community's experts to become better informed to address the Social Determinants of Health.

# Jayasekera, N\*. Bergman, K. Ramos, M. Ferguson, M. Standish, J. Point of care ultrasound improves patient care in underserved populations: the Contra Costa experience

Context & Setting: Point of care ultrasound (POCUS) can improve diagnostic accuracy and procedural competency. Although POCUS training and research in Family Medicine is relatively novel, multiple studies have shown that POCUS can improve patient care in resource limited settings (RLS) and underserved populations. In June 2011, the Contra Costa Family Medicine Residency Program (CCFMRP) initiated a comprehensive POCUS curriculum and credentialing process for all incoming residents. An abstract of this innovative program was presented at the FCM Rodnick Colloquium in 2013. Five years later, we will discuss the growth and trajectory of the program and how POCUS has been utilized with current trainees and graduates of the CCFMRP to improve patient care, specifically in RLS and underserved populations.

Setting/Population: The POCUS program is based at the CCFMRP in Martinez, CA. Foundation training in POCUS is initiated for all incoming interns and global health fellows in an annual two-day, 16 hour intensive hands-on workshop. Further training occurs on numerous clinical rotations. Additionally, residents and fellows are eligible to enroll in a popular 2-3 week POCUS elective for more advanced clinical training. The program is managed by Neil Jayasekera MD and Kevin Bergman MD and receives support by the CCFMRP and departments of Family Medicine, Radiology, Cardiology, and other relevant clinical departments.

**Intervention/Study Design:** Graduates of the CCFMRP and Contra Costa/UCSF Global Health Fellowship were surveyed in 2015 to assess if and how they utilize POCUS in their post-graduate medical practice.

**Outcome/Results:** Fifteen of the sixteen graduates surveyed work with underserved populations and 77% use POCUS on a regular basis. Examples of settings where our graduates utilize POCUS in RLS and underserved populations include: healthcare for the homeless including street medicine, Indian Health Service, rural medicine, global health, and FQHC's such as Contra Costa Health Services.

**Conclusions:** POCUS training and research in Family Medicine is in its infancy. Based on our experience at Contra Costa, comprehensive POCUS training in a Family Medicine Residency program can improve patient care in RLS with underserved populations.

### Dun, Gealina MD\*; Sellers, Ethan MD; Fung-Sakita, Sherry MD Pediatric group well-visit pilot in a Kaiser Permanente Medical Center

**Context & Setting:** Well-child care (WCC) is often the primary source of health care interaction for families at the beginning of life, providing an opportunity to address developmental, behavioral, and health issues. There is increasing recent interest in delivering this care through group visits. A systematic review of well-child care clinic practice redesign found evidence that group WCC decreased the number of sick visits and hospitalizations while covering more anticipatory guidance than traditional WCC. Other studies suggest that group WCC may reduce the rate of childhood obesity. Patients reported feeling greater social support and learning from other mothers without different outcomes in high-risk families.

**Setting/Population:** At the Kaiser Permanente Vallejo Medical Center, we felt our vulnerable population could benefit significantly from the unique social and educational support that WCC groups offer.

**Intervention/Study Design:** We first developed a robust curriculum and formed a multidisciplinary team of Family Medicine attendings and residents, Pediatric attendings, lactation consultants, medical assistants, LVNs, and a pediatric health educator. We recently completed our pilot with a 6 newborn cohort and 2 week, 2 month, 4 month, and 6 month WCC group visits. Mothers and caregivers attended each visit and participated in measuring newborn vitals, routine newborn exams, vaccinations, and at least 60 minutes devoted to interactive, age-appropriate, anticipatory guidance.

**Outcome/Results:** Parents expressed heartfelt gratitude for the WCC group visit program and especially enjoyed learning from each other and normalizing their experience. Providers valued the opportunity to deliver thorough anticipatory guidance and foster patient-provider relationships. Recruitment and retention were among our greatest challenges. Appointment times and patient/

ciency or flow. MS1s derived benefit from MS3 coaching, citing increased comfort with patients and colleagues, and more focus on teamwork and learning rather than concerns about performance evaluation. Observation of MS3s increased MS1 confidence that they would greatly improve during clinical years. MS3s generally felt this was a good opportunity to review medical knowledge and practice teaching.

**Conclusions:** Pairing of MS1s and MS3s was mutually beneficial, providing low stakes learning for MS1s and teaching practice for MS3s without compromising clinic efficiency or flow. This may be an effective, efficient model for engaging more learners in patient care and allowing them to learn from each other.

# Wondolowski, L\*, McNeil, S\*, Ferguson, N, Hartung, C, Patberg, J. Implementation of a residency half-day educational conference using Kotter's Model of Change

Context & Setting: A 2014 analysis of the Contra Costa Family Medicine Residency (CCFMR) didactic curriculum revealed an inefficient use of time for faculty, staff, and residents. Resident surveys indicated a need for improved lecture quality and increased administrative time. Attending surveys signaled the desire for increased didactic attendance and resident engagement. Both expressed the need for community building and improved communication. To better meet these needs, the residency consolidated didactic experiences into a protected half-day conference, which included: problembased learning, quality improvement, Balint, regular chief and residency meetings, administrative time, and community health activities. Data collected prior to implementation and half-way through the first academic year highlight successes, pitfalls, and lessons learned. In this session, we use our data to describe the implementation of this curricular enhancement through the lens of Kotter's 8-Step Process for Leading Change: create a sense of urgency, build coalitions, form strategic vision and initiatives, enlist volunteer army, enable action by removing barriers, generate short term wins, sustain acceleration, and institute change.

**Setting/Population:** In July 2017, all 39 residents and 50+ faculty members at the CCFMR embarked on half-day conference.

Intervention/Study Design: We surveyed residents (n=52 in June 2017; n=38 in Feb 2018) and faculty (n=59 in June 2017; n=53 in Feb 2018) via SurveyMonkey. Data reveal perceptions of outpatient didactic teaching, access to residency leadership and faculty, time for administrative tasks, and group cohesion.

**Outcome/Results:** From June to February, residents reported improved curriculum in 7 out of 10 subjects covered in half-day conference, greater access to residency leadership, superior communication, and expanded support for administrative tasks. From June to February, faculty felt slightly more connected to residents, but equally connected to other residency faculty and residency leadership.

**Conclusions:** Change can be hard, but the work we put in was worth it. Given the change-fatigue many residents and educators feel, we found Kotter's 8-Step Process to be a useful systematic approach. We hope to share our data in the context of this framework with the UCSF Family Medicine community.

Pulvers, E\* Tirado, S; Perez-Lopez, M. Resident and preceptor attitudes about providing physician aid-in-dying under the California end of life options act

**Context & Setting:** Given passage of the California End of Life Options Act (EOLOA) in 2016, similar legislation pending in 18 other states, and extensive evidence that scope of practice is established in residency, resident curricula in this area are warranted. Before developing this type of curriculum, however, we must understand residents' and attendings' perspectives about this care. We describe the results of a study of attitudes towards establishing physician aid-in-dying as part of the scope of Family Medicine residency practice.

**Setting/Population:** Subjects were a sample of residents and preceptors of the Contra Costa Family Medicine Program, a community-based family medicine residency in a safety-net setting.

**Intervention/Study Design:** All 39 residents at Contra Costa were sent a survey regarding their interest in establishing physician-aid-in-dying. All residency clinic preceptors were sent a survey regarding their interest in teaching and supervising physician aid-in-dying cases.

Outcome/Results: Sixty percent of all residents responded (n=24).; Thirty four percent of pre-

ceptors responded (n=13). The majority of residents expressed the wish to act as physician of record (73.9%, n=24) in physician aid-in-dying cases during residency. Furthermore, residents expressed interested in providing this care after graduation from residency (69.6%, n=24). Residency clinic preceptors were eager to learn more about how to teach physician aid-in-dying (92.3%, n=13) and were largely willing to supervise a resident providing this care if a protocol was in place for resident supervision and the resident was licensed (76.9%, n=13).

**Conclusions:** Though limited by sample size, this research demonstrates that in our community-based, safety net residency, residents are interested in providing physician aid-in-dying and that preceptors are willing to teach and supervise it. Given this interest, we put together a proposed protocol for Contra Costa residents to participate in EOLOA. We hope to share this curriculum at the Rocknick Colloquium with other residencies that wish to prepare their graduates in this emerging area of clinical care.

### Jeremy Fish, MD\* Building Clinic First from Scratch

**Context & Setting:** We built a Clinic First Residency Program from scratch at our new program to assure exceptional ambulatory continuity training for our residents.

**Setting/Population:** Our inter-professional leadership team reviewed innovative Residency Programs and developed a multi-perspective decision-making tool to help determine the "best Clinic First Model" for our program.

Intervention/Study Design: Our Core Faculty, Program Director, Residency Coordinator, Medical Student(s), and Practice Manager reviewed available innovative longitudinal and Clinic First programs and built a tool to assess best practices. Based on our matrix multi-perspective assessment, we selected the Indianapolis Model using Long-Block/Short-Block fixed clinics framework.

**Outcome/Results:** In order to fully manifest the benefits of our Modified Indianapolis Model, we created Dyad Resident Panels to share a panel, provide cross-coverage for each other, and have continuity clinics available at least 4-5 half-days per week every week of the year.

Our residents see the Residency Practice as their "learning home" and provide very favorable reviews of their learning experience in Residency Practice. Our small, professional Residency Practice Faculty focuses the entirety of their teaching within the Practice. We have maintained very impressive resident well-being thus far and our residents have already seen ~150 continuity patients (with high continuity rates) in their Practice just 6 months into their training.

**Conclusions:** Building Clinic First from scratch presented large challenges with large benefits---particularly with the development of our resident's family physician identity within the Residency Practice. Our residents consider the Residency Practice their primary learning site, their learning home, and where they now feel most comfortable and capable of caring for patients.

arm reported higher quality of care on the Patient Assessment of Chronic Illness Care (mean item score=3.9 vs 3.4, adjusted p-value=.02). During the study, patients in the coaching arm had 48% fewer hospitalizations related to COPD (.27/patient/year vs .54/patient/year), but this difference was not significant after adjustment for baseline characteristics and clustering. In post-hoc analyses, we found that patients in the coaching arm were less likely to be hospitalized following an ED visit for COPD exacerbation (29% vs. 62%; adjusted p-value=.01) and were less likely to report symptoms of moderate to severe depression on the Patient Health Questionnaire (6% vs 20%; adjusted p=.01).

**Conclusions:** These results should help inform expectations regarding the limitations and benefits of the health coaching for patients with COPD. They may be useful to health policy experts in assessing the potential value of reimbursement and incentives for health coaching type activities for patients with chronic disease. Future studies could explore pared down versions of model focusing on the positive outcomes noted in the current study.

### Iten, E.\*, Kinnevey, C., Rabbani, J., Stecker, T Pipeline development through scholarly community service

**Context & Setting:** Increasing the diversity of the health workforce improves the quality of culturally and linguistically-sensitive care for underserved populations. Underrepresented minority (URM) students are more likely to attend community college and less likely to be accepted to medical school than traditional students. The Medical Scholars Program (MSP) was created to provide community college students with high quality premedical experiences to augment their competitiveness for medical school.

**Setting/Population:** The Kaiser Permanente Napa-Solano Family Medicine Residency Program has partnered with Napa Valley Community College (NVCC) to create the MSP, with a focus on providing mentorship through community engagement service work.

**Intervention/Study Design:** In the Fall 2017, ten NVCC students participated in professional development training sessions and committed to working collaboratively to conduct a cross-sectional community needs assessment that included a survey to evaluate the attitudes and confidence levels of Vallejo teens regarding healthy cooking habits. Twelve students joined the MSP this Spring semester. The Fall needs assessment informed a community-based intervention that is currently ongoing.

**Outcome/Results:** The results of 88 surveys collected suggested that most adolescents surveyed have a positive attitude towards cooking healthy meals. However, there were mixed perspectives on the difficulty and time involved in cooking healthy meals. This prompted the community college students to create a cooking class with aims to increase confidence in basic cooking skills among Vallejo teens by providing hands on practice making budget-friendly, quick healthy meals. Fifteen high school students have been recruited to participate in the cooking class scheduled to take place at a local high school in March. Findings from the intervention evaluation (a pre-post survey), along with lessons learned about the overall experience, will be presented at the colloquium.

**Conclusions:** Mentorship through community engagement serves a dual purpose of providing a structured project through which college students can develop professionally, and learn to assess and address community needs. Participating in hands-on community engagement activities can teach students how to think critically, learn about social determinants of health, and develop leadership skills that will help them achieve success in their paths to a healthcare career.

# Sanford,E\* Tirado,S Cushing,B Kong,A Ramos,I Collaborating with Community Organizations to Address the Social Determinants of Health

**Context & Setting:** As clinics and hospitals reimbursement strategies evolve, they become more responsible for the general health of the public. Community organizations are critical to teaching us how to improve the social health issues that cause vulnerable populations to disproportionately suffer from worse health outcomes and increased costs. The modifiable Social Determinants of Health, such as access to health care, worker's rights, addiction, cross-culture care, nutrition and health literacy require community level health strategies.

**Setting/Population:** UCSF-Natividad Family Medicine Residents become better health care leaders through participatory research engaging with the community we serve by working with our partner organizations. The Community Oriented Primary Care method provides structure for these interactions.

**Intervention/Study Design:** Each Resident developed a community project in cooperation with community partners using the Community Oriented Primary Care method. Here we present the process and showcase 3 Resident's projects.

**Outcome/Results:** Residents developed culturally appropriate interventions addressing access to care for undocumented, post partum depression, empowering fieldworkers to breastfeed and preven-

and initiated assessment by a supervising Family Medicine, OB Attending or fellow by presenting them the form for evaluation. Completed forms were returned to the study champion.

**Outcome/Results:** Residents gave positive feedback and appreciated the real-time evaluations of competency. It was difficult to keep transitioning residents informed, faculty engaged and therefore to maintain momentum seen with the initiation of the pilot. Numbers obtained with regards to competency, are consistent with other Family Medicine literature and therefore validate their use in this area of maternity care.

**Conclusions:** Success with PCATs requires a faculty champion or collaborators to ensure proper and timely use. These maternity care PCATs need to be piloted in other residency/training sites in order to create validated tools with inter-rater reliability to be used both as summative and formative tools. Potentially, standardized procedural competency could allow for recognition via certificate of added qualification of focused practice in certain subspecialized areas such as maternity care.

# Liang, C, Manaois, A, Lee, A, Labuguen, R Using Lean and change management to engage staff in clinical workforce development.

Context & Setting: Acclaimed change management models (e.g. Kotter, Bridges, Prosci) all conclude that 1) change is difficult and 2) change requires vision, strategy, and engagement. Since 2016, the Zuckerberg San Francisco General (ZSFG) Adult Urgent Care Center (UCC) has been in a state of transition with its planned relocation and growing demand to increase its capacity to serve the community's unmet urgent care needs. To support and accommodate the relocation and demand, the UCC has created a strategic plan for clinical workforce development using Lean and change management principles.

**Setting/Population:** The UCC is located in San Francisco's Mission neighborhood and provides services to the county's urban underserved population. The UCC management team has been collaborating with UCC staff and community stakeholders in strategic planning and implementation.

**Intervention/Study Design:** The UCC management team utilized A3 thinking, a critical thinking approach for continuous improvement, to design a clinical workforce development strategy. This strategy comprises of the following improvement areas: 1) clinical content and expectations, 2) operational content and expectations, and 3) nursing and support staff development. They all incorporate adherence to the UCC's mission, staff engagement in creation and implementation, Plan-Do-Study-Act (PDSA) cycles, and accountability with metrics utilization.

**Outcome/Results:** Data is currently being collected on patient visits, clinic capacity, lead times, cycle times, patients who leave without being seen, missed opportunities, and patient and staff satisfaction. Chart reviews are being conducted to identify practice patterns that indicate educational and training gaps.

**Conclusions:** Workforce development requires continuous staff and leadership engagement, effective communication, and accountability that is connected to the organization's mission. As clinic and staff needs change over time, it is critical to have ongoing transparency and review of improvement processes and interventions. The challenges associated with behavioral and cultural transformation must be acknowledged and addressed in a respectful and appropriate manner, specifically within the context of caring for underserved and culturally diverse populations.

# Thom D\*, Willard-Grace R, Su G, Tsao S, Chirinos C, Wolf J, DeVore D, Huang B, Low D. Randomized controlled trial of health coaching versus usual care for vulnerable patients with chronic obstructive pulmonary disease (COPD)

**Context & Setting:** Socioeconomically disadvantaged patients, who bear a disproportionate burden from chronic obstructive pulmonary disease (COPD), often lack resources to optimize management of their disease, including limited access to pulmonary specialists. We conducted a randomized controlled trial to compare patients receiving health coaching vs usual care. Setting/Population: English - or Spanish - speaking patients at least 40 years of age with moderate to severe COPD from 7 San Francisco Health Network clinics.

**Intervention/Study Design:** Randomized-controlled trial of health coaching for 9 months versus usual care. Coaches were unlicensed health workers who accompanied patients to their primary care and specialty visits, met with them between visits and facilitated review of patient care plans by a pulmonary nurse practitioner.

**Outcome/Results:** A total of 192 patients were enrolled (68% of those determined to be eligible) and 158 (82%) completed 9 month follow-up. We found positive trends but no significant differences between study arms for the primary and secondary outcomes of improvement in quality of life, number of exacerbations, exercise capacity or self-efficacy. At 9 months, patients in the health coached

### ABSTRACTS: Posters

B. Blockman, MD; M. Acree, PhD; D. Becker, MD, MPH; JT Moskowitz, PhD; A Nichols, RN; A Schaffer-White, MD; M Winkelman\*, MA; FM Hecht, MD. Effectiveness of a Mind-Body and Peer Support Program for Teens Living with Chronic Illness and their Parents: A Pilot Study.

**Context & Setting:** To assess the feasibility of a novel group intervention providing mind-body skills and peer support for teens living with chronic illness and their parents, and explore its impact on physical and mental health, resiliency, and symptoms.

**Setting/Population:** Each session included meditation, didactic instruction, a mind-body technique, and group sharing. Teens and parents met in separate groups for 10 2-hour sessions. We used a pre-post evaluation design, with evaluations at baseline, post intervention, and 3 months post-intervention.

**Intervention/Study Design:** Teens (N=26) were 73% female, ave age 15.5 yrs, ave attendance 7.8 sessions. Illnesses represented: Cancer, Chronic Abdominal Pain, Chronic Migraine, Cystic Fibrosis, Endometriosis, IBD, JIA, Lung Disease, Neuromuscular Disorders, Type I DM, Wegener's Granulomatosis.

**Outcome/Results:** Comparing baseline with immediate post-intervention, multiple outcomes showed statistically significant improvements: Physical Health (NIH Promis) mean change (MC) = +0.92, Effect size (ES)=0.45, p=0.036; Mental Health (NIH Promis), MC=+2.46, ES=0.83, p=0.005; Total Mood Disturbance (Profile of Mood States-POMS), MC=-1.37, ES=0.51, p=0.021; Depression (POMS), MC=-0.39, ES=-0.52, p=0.018; Fatigue (POMS), MC=-0.028, ES=0.52, p=0.011; Vigor (POMS), MC=+0.30, ES=0.49, p=0.003; Perceived Stress (Perceived Stress Scale), MC=-3.72, ES=-0.79, p=0.001; Resiliency MC=+0.36, ES=0.73, p=0.002; Post-Traumatic Growth MC=+0.39, ES=0.54, p=0.015. All results retained significance 3 months post-intervention, except post-traumatic growth, and ES for anxiety (POMS) became significant at this point (ES=-0.89, p=0.003). Teens also reported decreases in symptom frequency (p=0.001) and medication usage (0.002), when comparing baseline to immediately post-intervention. Parents reported a decrease from baseline in unplanned doctor visits for their child at the 3-month follow-up (p=0.034). The majority of these results become stronger in an analysis that retained only participants attending; 50% of the sessions (n=22).

**Conclusions:** Our results suggest that the intervention resulted in positive changes in physical health, mental health, mood, stress, resiliency, and post-traumatic growth in teens living with chronic illness; these promising results warrant further testing in a controlled trial design. This holistic intervention may serve as a model to further apply in other community-based settings.

Weber, S\* Lazar, L Kilpack, T. A searchable, online global PrEP provider directory and countryspecific PrEP resources for consumers and providers: the PleasePrEPMe.Global experience.

**Context & Setting:** Pre-exposure prophylaxis (PrEP) was recommended for people at substantial risk of HIV exposure by the World Health Organization (WHO) in September 2015. As PrEP implementation efforts expand, there is no central database to identify PrEP providers or country-specific PrEP resources.

**Setting/Population:** PleasePrEPMe.Global launched in May 2017 as a database of PrEP providers hosted as a searchable, web-based directory in the Google Maps platform. PleasePrEPMe.Global aims to be a hub for PrEP access by providing: 1) a searchable map of PrEP providers, 2) individual resource webpages for each country. The project is a crowd-sourced effort which relies on relationships with advocates to reach providers and PrEP users. To date, there are 535 PrEP provider listings in 29 countries with over 6,000 map views from 1,400 website users.

Intervention/Study Design: Preliminary iterations of the directory tested the layers function on the Google Map platform. Data is sorted by clinic type: public, private, demonstration study, clinical trial, resource center (Figure 1). Each location includes searchable tags with populations served: everyone, youth, adults, men who have sex with men (MSM), women, mixed-status couples, transgender people, sex workers, people who inject drugs.

**Outcome/Results:** Fostering lasting relationships with PrEP champions in each country is key to the integration of clinic listings and resources. The initial database was built with three large datasets, followed by bulk uploads from four additional countries (Table 1). A coordinated outreach campaign to PrEP demonstration sites was initiated in collaboration with AVAC. This process identified additional clinic listings and resources. Website analytics indicate PleasePrEPMe.Global is accessed in multiple languages. In order to support automated translation software, the website wording is now clear, simple, and direct.

**Conclusions:** PleasePrEPMe Global has increased visibility of early-adopter PrEP providers and publically available resources by providing easily accessible, curated, web-based information. Further outreach is needed to countries with approved PrEP and/or implementation projects for additional

data. As website traffic increases, sharing user analytics with local and regional programs may provide an additional source of data to inform outreach and implementation efforts.

Standish, J\* Mboma, A. Mkweu, R. Scander, L. Siliya, B. Jayasekera, N. Bergman, K. The use of basic after visit summaries in the Chichewa language to improve patient understanding of diagnosis and treatment plan.

**Context & Setting:** Patient-centered care ideally should take into account the patient's language and education level.

Setting/Population: During their Family Medicine rotation, Malawian medical students from the University of Malawi work in a team together with a Family Medicine doctor in a district hospital in rural Malawi. In the fall of 2017 our team worked in Neno, Malawi where the local language is Chichewa. During a typical outpatient consultation, a clinician interviews a patient in Chichewa and then writes the assessment and plan in English in the "medical passport" that each patient carries with them. English is the official language of Malawi however many people in this region do not speak or read enough English to understand these notes. During our time at the district hospital, we found that many patients did not understand their diagnosis or treatment plan after leaving the consultation. Intervention/Study Design: We created a basic after visit summary outline in Chichewa that could be filled in by the clinician at the end of each visit. We also created a small guide for common diagnoses and medication indications in English/Chichewa that could be referenced by clinicians.

**Outcome/Results:** After implementing this intervention we found that the percentage of patients who could name their diagnosis increased from 30% to 67.5%, the percentage of patients who could name the indication for their medication increased from 35% to 52.5% and the percentage of patients who could name their medication(s) increased from 42.5% to 85%.

**Conclusions:** This after visit summary outline can quickly and effectively be utilized to help Chichewa-speaking patients understand their diagnosis and care plan in the outpatient setting. Although it was not quantified, we also noted from numerous patient comments that satisfaction with perceived quality of care after the intervention also appeared to improve.

### Weber S, McCord A, O'Neil R, Oseguera-Bhatnager Y, Romero C, Lazar L. Reaching Californians online with chat-based HIV prevention services: the PleasePrEP-Me:Connect experience

Context & Setting: In the U.S., uptake of PrEP has been high among white, gay men in urban centers where access to PrEP has been fostered by convenient and attractive clinical services supported by benefits navigation. Uptake of PrEP is lower than the CDC's estimated 1.2 million U.S. adults who could benefit; an estimated 98,732 having started PrEP by the end of 2016. Reasons for not using PrEP include lack of PrEP awareness, denial of HIV risk, fear of high costs associated with PrEP care, and concerns about side effects and HIV-related stigma. HIV prevention education and PrEP navigation is essential to assure potential users access insurance coverage, state and local government PrEP services, and industry-sponsored services.

Setting/Population: New information reveals people whose social interactions are primarily online are at higher risk of acquiring HIV, highlighting the potential impact of finding novel ways to improve engagement with vulnerable populations through online services. PleasePrEPMe:Connect provides HIV prevention education and resources to Californians through online chat in English and Spanish, aiming to reach potential PrEP users.

Intervention/Study Design: Online outreach through social networking apps targets geographic locations and populations currently underserved by existing services. PleasePrEPMe:Connect utilizes a sexual health coaching model and locates PEP/PrEP services through PleasePrEPMe's directory and resources. Email, text and telephone follow-up are offered.

**Outcome/Results:** During April 2017-Jan 2018 there were 128,000 visitors to PleasePrEPMe.org. 86,000 were offered proactive chat. 700 engaged with PleasePrEPMe:Connect -providing navigation and HIV prevention information via chat (44%); email (3.2%); text, social media and telephone calls (1.7%). More than one topic may be covered per interaction including: navigation (59%), PrEP basics (26%), identifying a specific medical provider (37%), HIV 101 (3%), PEP (4%).

**Conclusions:** PleasePrEPMe:Connect visitors come from diverse California regions, mapping chats geographically illustrates further outreach is needed to areas of moderate-to-high syphilis incidence. Paid advertising and partnerships with online and offline community leaders have been key in increasing visitors. Further evaluation is needed to understand the service needs of the 22,000+ monthly visitors who do not engage in chat.

caused "high" or "extremely high stress," only 33% felt the same for all-day clinic. Fifty-three percent of residents thought all-day clinic had "low" or "no stress;" only 5% reported "low" or "no stress" with the traditional half-day model. Regarding continuity, 98% of residents surveyed "agreed" or "strongly agreed" that increased continuity among providers improves patient care. When asked if scheduling changes to an all-day clinic model increased continuity among providers," 46% "agreed" or "strongly agreed," whereas 12% "disagreed." We asked residents to make a recommendation for future schedules; 85% wanted to maintain some form of all-day clinic model and 58% recommended that all residents switch to the all-day clinic model.

**Conclusions:** Employing simple scheduling changes, we were able to reduce resident stress and increase perceived continuity. Based on the overwhelmingly positive resident response, in the next academic year, we are moving an additional 20% of inpatient residents over to the all-day clinic model. We value the opportunity to talk to other UCSF programs that are considering doing the same.

### De Marchis, E;\* Bueno, A;\* Cartier, Y;\* Fichtenberg, C; Gottlieb, L Monitoring the prevalence of health care-based screening and interventions addressing patients' health-related social needs.

Context & Setting: Despite rapidly growing interest in addressing health-related social needs in health care settings, little is known about the prevalence of these activities in US safety net clinics. The study goal was to better characterize the prevalence of social services delivery in federally-qualified health centers (FQHCs), which serve large numbers of patients who are likely to benefit from social service programs, than currently captured in the Uniform Data System enabling services. Setting/Population: Survey participants included 3,965 community health center patients responding to the 2014 HRSA Health Center Patient Survey (HCPS); and 679 executive or clinical directors of FQHCs responding to the Commonwealth Fund's 2013 Survey of FQHCs. Survey weights were used to approximate a nationally representative sample.

**Intervention/Study Design:** Study methods included: descriptive analyses of the two data sets to examine: 1) patient-reported medical or non-medical needs and assistance; and 2) FQHC reports of health-related social services provision, including benefits counseling and transportation services.

**Outcome/Results:** HCPS (patient-level data): 64.6% (95% CI 60.3-68.7) of respondents reported receiving assistance with a social need from their FQHC at any time. Assistance with medical-related social needs (e.g. transportation to clinic) was more common than assistance with non-medical-related social needs (e.g. food, housing) (57.9% [95% CI 53.8-62.0] vs. 23.5% [95% CI 20.0-27.4]). Urban, middle -age, and lower-income patients endorsed higher rates of assistance. At the FQHC-level data, only 23.4% of clinics reported usually (~75% of the time) providing community health workers when patients need them; 50.4% reported usually providing benefits counseling when needed; 33% of respondents reported usually providing transportation services to patients who need them. Those clinics recognized as patient-centered medical homes were more likely to provide health-related social services.

**Conclusions:** Close to two-thirds of patients report ever having received social services assistance through their FQHC, though FQHC leaders report that these needs are rarely addressed routinely. These results should be combined with other enabling services datasets to better characterize whether social service needs are being met by existing programs.

# Dahlfred L\*, Goldstein J Pilot results of Procedural and Cognitive Competency Assessment Tools in maternity care for family medicine residents

Context & Setting: The Council of Academic Family Medicine(CAFM) and Association of Family Medicine Residency Directors(AFMRD) initiated a procedural competency task force in 2014, hypothesizing that standardized assessment tools would ensure procedural competence in Family Medicine. Competencies were divided into maternity and non-maternity care. Non-maternity care Procedural Competency Assessment Tools(PCATs) were published and endorsed by CAFM. However, the maternity PCATs had not been fully endorsed by the CAFM or AFMRD. In order to study the maternity care PCATs and obtain full endorsement, these have been piloted within Natividad Family Medicine Residency.

**Setting/Population:** Natividad Family Medicine Residency piloted these procedural and cognitive based maternity care assessment tools. This training site is a 10/10/10 unopposed county hospital residency and maternity exposure at this training site includes an OB Fellowship with an average of three fellows/year, and 2400 annual deliveries most of which involve residents.

**Intervention/Study Design:** PCATs were one to two page paper forms. These were placed in a designated folder at two training sites. Tools provided included: Prenatal Care, Labor Management, Postpartum Care, Laceration Repair, 3rd/4th degree Laceration Repair, Vaginal Delivery, Instrumented Delivery, Cesarean delivery, and Uterine Aspiration. Residents were notified of these assessment tools

to improve their BP; and patients' top concerns about home monitoring of their blood pressure included "learning to use the BP cuff," "paying for the BP cuff" and "remembering to take my BP". Based on the results of this survey, Bridges students in the fall of 2017 designed two interventions to implement in 2018: (1) Design and distribute a patient handout to guide patients in development and tracking of a SMART behavior change goal. (2) Pilot a home monitoring program. Patients identified by providers as good candidates for this intervention and who carry insurance that covers a blood pressure cuff are invited to participate. Participation includes 1:1 health coaching and development of a SMART lifestyle change goal with a medical student, and follow-up encounters to assess patient progress.

**Outcome/Results:** To date, three patients have been invited to participate in the home monitoring program. Of these, one patient has completed the program and achieved goal for blood pressure control, and one was lost to follow-up.

**Conclusions:** Health coaching and home monitoring can be a useful intervention for selected patients. Patient motivation to participate and regular follow-up is critical to successful outcomes.

Sanford, Eric\* Tirado, Sally Lepp, Nathaniel Cushing, Blair Dahlfred, Leah Kong, Anna Ramos, Ivette Residents Collaborate with Community Organizations to Address the Social Determinants of Health.

**Context & Setting:** As health care systems evolve, clinics and hospitals reimbursement strategies change making them more responsible for the general health of the public. Community organizations become critical to teaching us how to improve the social health issues that cause vulnerable populations to disproportionately suffer from worse health outcomes and increased costs. The modifiable Social Determinates of Health, such as addiction, cross-culture care, nutrition and health literacy require community level health strategies.

**Setting/Population:** Family Medicine Residents become better informed health care leaders through participatory research engaging with the community we serve by working with our partner organizations. The Community Oriented Primary Care method provides structure for these interactions.

**Intervention/Study Design:** Each Resident developed a community project in cooperation with a community partner using the Community Oriented Primary Care method. Here we present the process and give 3 or 4 residents a chance to present how they used the method to develop culturally appropriate and feasible community level interventions.

**Outcome/Results:** Community Partnerships Example: At our local drug and alcohol rehab centers (Door to Hope and Sun Street) Family Medicine Residents tour the residential rehab facility, participate in AA, NA, Social Model recovery meetings, and give a health presentation and survey clients about a chronic disease health topic. Residents interview clients using an in-depth instrument (T-ASI) to better understand how the spheres of personal, family, friends, community, schools, employment, justice, community all intersect to influence the client's health behaviors. Family Medicine Residents learn to see the humanity in people suffering from addiction and are inspired to help. Community level interventions to address addiction are vetted by those that suffer most from the disease.

**Conclusions:** Health Systems can learn to be more responsive to the specific needs of the community by engaging with and learning from the community's experts to become better informed to address the Social Determinants of Health.

Ferguson, M\*. Jester, G. Hartung, C. Patberg, J. McNeil, S. Consolidating Family Medicine clinic on inpatient rotations to decrease resident stress and improve patient continuity.

**Context & Setting:** High levels of resident stress on inpatient rotations is a problem faced across Family Medicine residences; we, at Contra Costa, are no exception. One challenge occurs when residents round in the morning and have clinic in the afternoon. We decided to tackle this problem by consolidating 40% of inpatient-residents' schedules to an all-day Family Medicine clinic model.

**Setting/Population:** We targeted inpatient rotations at Contra Costa Regional Medical Center, including Hospital Medicine, General Surgery and ICU rotations. Over the course of the academic year, all 39 residents were involved in this change.

Intervention/Study Design: During each 4-week block, 10 residents round on inpatient services (Hospital Medicine, General Surgery, and ICU). Starting in July of 2017, 40% of our residents transitioned to an all-day clinic model. We created a new schedule wherein two half-days of family medicine clinics were consolidated into one full-day of clinic per week. We surveyed all inpatient residents each block to evaluate their perceptions of stress levels, patient continuity and opinions regarding further changes.

Outcome/Results: To date, while 57% of residents felt that having afternoon clinic on inpatient

# Bondi-Boyd, Brea Using Needs Assessment to Design and Implement a Transgender Specialty Care Home at an FOHC

Context & Setting: Contra Costa Health Plan (CCHP) serves as a safety net insurance program for Contra Costa county's most vulnerable patients. Transgender people live in poverty at twice the rate of the national average, and have higher rates of homelessness and suicidality. There is abundant evidence that transgender patients are frequently discriminated against in the healthcare setting, making them less likely to seek care. In 2016, to meet the needs of these vulnerable patients, CCHP decided to create a Transgender Specialty Care Home. CCHP had 3 goals for this clinic: provide culturally competent care; connect transgender persons to public health, surgical care, and mental health services; and create a training center to disseminate this work.

**Setting/Population:** Multiple needs assessments were done to inform implementation of this clinic. We have collected data on all of the patients seen at the clinic and continue to follow them closely. As the clinic developed, the county health system also worked with the health equity team to capture Race Ethnicity Age Language (REAL) and Sexual Orientation Gender Identity (SOGI) data. Ultimately, we surveyed primary care physicians and residency faculty on foundational knowledge around caring for transgender patients.

Intervention/Study Design: In starting the clinic, we first worked with experienced community partners (Kaiser, UCSF Center of Excellence in Transgender care, and the Gender Health Center in Sacramento) to develop clinic documents, including consents and surgical referral letters. We partnered with administration to identify a community-contracted psychologist and developed a referral process. We created a database of community resources for our patients, including mental health referrals and embedded a member of our Mental Health Access team into each clinic to help patients navigate the system. As the clinic developed, we used both informal interviewing and formal surveys to inform changes. For example, informal interviewing of staff, helped us to train physicians, registration, reception, and support staff in providing culturally-competent, gender-affirming care. Specifically, employees who staff this clinic had 1-hour training sessions with our Health Equity team and a community membership. Additionally, all county personnel get a 4-hour training session in cultural humility.

**Outcome/Results:** Since starting the clinic at one of our community clinics in the Fall of 2016, we have collected both qualitative and quantitative data on the services we have provided. In the first year (this current year is still being analyzed) we found the following demographics of our patients: 7% were less than18 years of age, 30% were 18-24 years old, 61% were 25-64 years old, 51% identified as Male, , 33% identified as Female, and 15% were non-binary/non-conforming gender. Twenty-seven patients were connected to mental health services. Three were referred to Children's hospital for pediatric assessment, thirteen were referred to surgery services at our contracted tertiary care center. All but 3 patients were initiated on or continued hormone replacement. REAL and SOGI data from across the county has been collected for over 35,000 patients and will be updated at the time of presentation.

**Conclusions:** This process demonstrates the feasibility of creating a clinic for transgender patients at a large FQHC and demonstrated that there is need in the community. Given that we have only seen a fraction of the 130 patients identified in the SOGI data as transgender (and far more based on statistics for California, we have more to do in outreach to the community. To address this, we plan to go into the community we plan to expand the clinic to sites throughout the county to reduce transportation constraints. We have shown that while there is interest from primary care to provide transgender related services, the expertise for consultation around hormone management is needed. We have demonstrated that by embedding mental health services, patients are more likely to get whole-person care. Next steps include: a plan to gather qualitative data on patient experience, analyze results of our SOGI/REAL data collection, and integrate residents-in-training into the clinics.

## Peterson, S.\*, Garcia, J., Hansen, N. Health coaching and home monitoring to improve blood pressure control

**Context & Setting:** Hypertension raises risk of stroke, heart failure, and other cardiovascular diseases. In the United States today, 1 in 3 adults have uncontrolled hypertension.

**Setting/Population:** At UCSF Lakeshore Family Medicine Clinic, 1,915 patients with hypertension and a recorded blood pressure (BP) in the last 12 months are included in the clinic's hypertension registry. Currently, 78.18% of these are at goal for blood pressure control. By implementing new protocols for hypertension control at Lakeshore, we aim to increase the percentage of patients on Lakeshore's hypertension registry whose blood pressure is controlled to 82% by June 30, 2018.

**Intervention/Study Design:** The project launched in 2016 with a survey of patients on the hypertension registry to explore their concerns and preferences. Key findings included: 83 percent of patients would prefer to check their blood pressure at home vs. visiting the clinic; 92 percent of patients expressed interest talking to a clinic staff member or medical student about making lifestyle changes