

**NYC RING**  
**Selected Abstracts**  
**3<sup>rd</sup> Annual Convocation of Practices**

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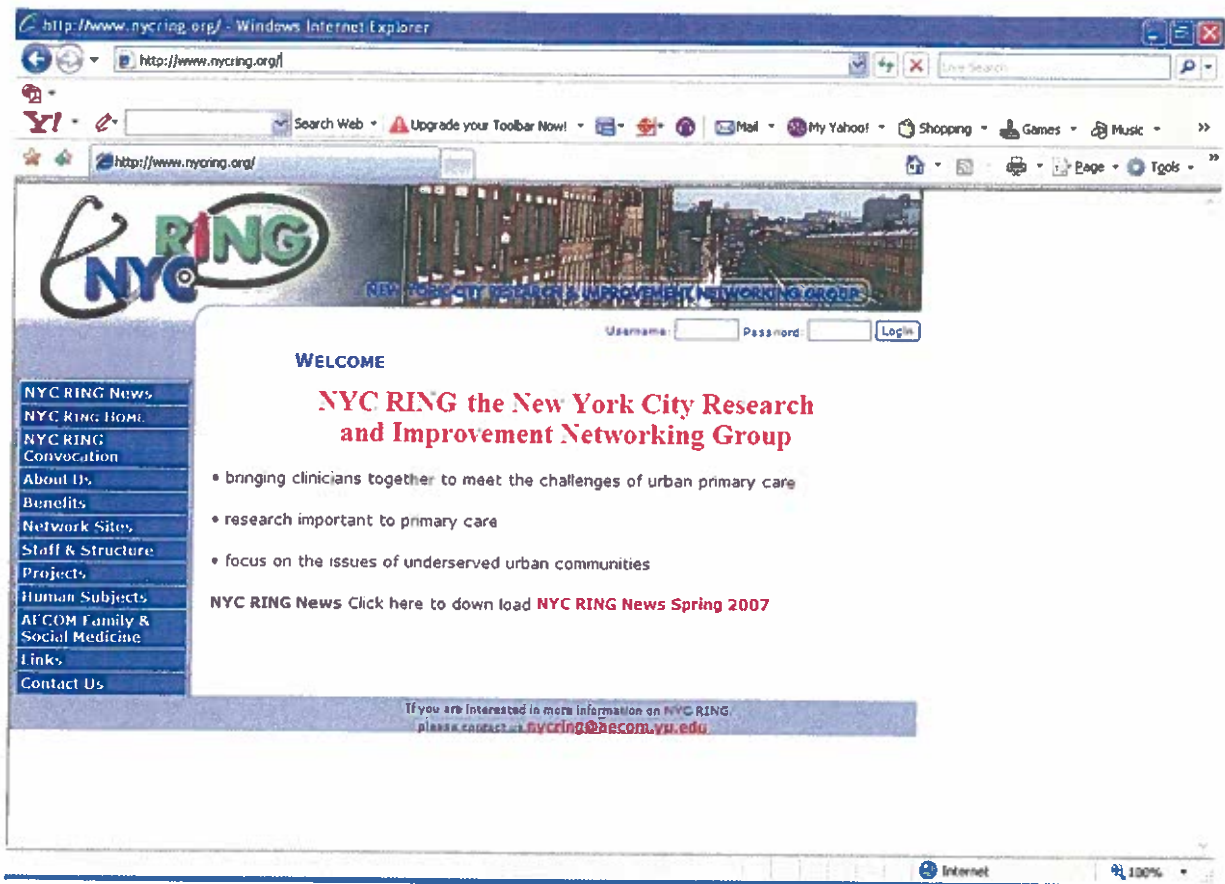
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# NYC RING WEBSITE

Please visit our website at [www.nycring.org](http://www.nycring.org) to learn more about our goals and projects, or to view complete posters for the abstracts to follow.







## ABOUT US

The **New York City Research and Improvement Networking Group (NYC RING)** was formed in 2003. It is a practice based research network sponsored by the Department of Family and Social Medicine of Albert Einstein College of Medicine. NYC RING has built to date a partnership of 20 practices in the Bronx and Manhattan sponsored by five medical centers, and one private practice, providing over 395,000 visits to primarily low-income, minority primary care patients.

## WHAT IS A PRACTICE BASED RESEARCH NETWORK (PBRN)?

- A voluntary association of practicing clinicians collaborating to improve quality of care through research or quality improvement in their offices.

## OUR UNIQUE GOAL

To focus on the issues of underserved urban communities through quality improvement projects and research initiatives.

## CRITICAL ELEMENTS OF NYC RING PROJECTS

- Clinically relevant in urban primary care
- Potential to change practice
- Respectful of clinician time and practice realities
- Results fed back to practices
- Opportunity for clinician and staff input at all phases

## PARTICIPATION

We welcome both new member practices and collaborators working on research topics appropriate for the practice based setting. Please visit our website at [www.nycing.org](http://www.nycing.org) to learn more about our goals and projects.

## NYC RING MEMBERS

### **Institute for Urban Family Health** (Manhattan)

- Sidney Hillman Family Practice
- Phillips Family Practice
- East 13<sup>th</sup> St. Family Practice
- Amsterdam Center
- East 13<sup>th</sup> St. Family Practice (Bronx)
- Mt. Hope Family Practice
- Parkchester Family Practice
- Walton Family Practice
- River Center for Counseling
- Urban Horizons Family Health Center
- Westchester Ave. Center

### **Montefiore Medical Center** (Bronx)

- Montefiore Medical Group
- Castle Hill
  - Comprehensive Family Care Center (CFCC)
  - Comprehensive Health Care Center (CHCC)
  - Family Health Center
  - Fordham Family Practice
  - Marble Hill Family Practice
  - University Ave. Family Practice
  - West Farms Family Practice
  - Williamsbridge Family Practice

### **South Bronx Health Center for Children and Families** (Bronx)

### **Private Practice** (Bronx)

- Riverdale Family Practice (Morrow)

### **Urban Health Plan Inc.** (Bronx)

- El Nuevo San Juan
- Bella Vista Health Center
- Plaza Del Castillo Health Center

### **Saint Joseph's Medical Center**

- Family Health Center (Yonkers)

### **Bronx-Lebanon Hospital Center** (Bronx)

- Fulton Park Family Practice
- Ogden Family Medical & Dental Center



## **NYC RING's Third Annual Convocation of Practices: Clinicians and Researchers Gather to Share their Work**

The gap between quality improvement and research can be bridged when clinicians and researchers share their work. To stimulate such communication, NYC RING asked researchers to provide poster presentations of their work and clinicians to provide quality improvement storyboards that described their efforts. These were presented at the 3<sup>rd</sup> Annual NYC RING Convocation in September 2006.

The informal poster presentations and story boards were presented by teams from participating sites and investigators working in NYC RING practices. The wide range of topics important to primary care practice in the urban health setting included coronary heart disease, asthma, depression, obesity, HIV, diabetes, emergency contraception, literacy, employing electronic medical records and distribution of pharmaceutical samples.

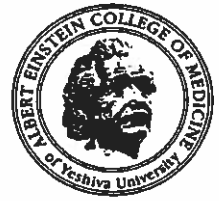
We hope that by creating a book of abstracts, to highlight these 26 submissions, we can help share this important work among interested parties. If you find this interesting and stimulating feel free to contact the author, their email address is on pages 37 and 38. Amazing long lasting collaborations have started from just this type of sharing. Full posters are available on the NYCRING website at [www.nycring.org](http://www.nycring.org).

We look forward to hearing from you about how we can help you and others to further build on this work.

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**3rd Annual Convocation of Practices  
September 14, 2006**

**Poster Session  
4:30- 7:30 pm**

**Keynote Speaker  
5:30pm**

**Jonathan Tobin, PhD  
President/CEO  
Clinical Director's Network**

**"No Medication without Representation: How  
to Avoid the 'Lost in Translation'  
Syndrome"**



NYC RING  
3rd Annual Convocation of Practices  
September, 2006  
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**Detecting and treating depression in a primary care clinic in an underserved community:  
*The power of motivational interviewing, frequent provider visits and group visits*  
Diana Ramirez, MD, Ella Leers, MD, Earlean Barrett, CSW, Jean Burg, MD**

**Context:** Approximately 10% of the Bronx is affected by a mental health disorder compared to 7.1% for all of NYC.

**Objective:** Incorporate screening for depression and identify effective ways for primary care providers to treat depression in an underserved, disenfranchised community.

**Design:** New patients who come for annual visits and patients with “red flags” for depression are screened using the Patient Health Questionnaire (PHQ-2 & PHQ-9). If they screen positive they are offered one of five interventions.

**Setting:** The Health Center at Tremont and a family medicine practice located near Crotona in the Bronx.

**Instrument:** The PHQ-2 measures loss of interest in activities and feeling down in the past two weeks. If the patient answers yes to one or both questions the PHQ-9 is administered by the provider at the initial visit and at weeks 6, 12 and 24.

**Intervention:** Patients who screen positive for depression are offered the following interventions: 1) multiple regular physician follow-up visits using a motivational interview model, 2) antidepressant medications, 3) bi-weekly women’s group sessions facilitated by providers in English and Spanish, 4) mental health referrals, 5) a six week yoga class. Treatment interventions are chosen by the patients and are not mutually exclusive.

**Outcome Measures:** Outcomes measures include: the prevalence of depression in the patient population, the percentage of patients who screen positive for depression on the PHQ-2 and PHQ-9, the percentage of patients with provider follow up within 3 weeks of diagnosis of depression and a change in PHQ-9 score at week 6, 12 and 24. The goal is to have a 50% reduction in symptoms at week 12 and scores less than 5 after 6 months of treatment.

**Results:** 219 patients screened for depression and 73 (36%) individuals had a positive PHQ-2. Of these 79, 43 (54%) had a positive PHQ-9, 28 (35%) had negative PHQ-9 and 7 (9%) had not yet had a PHQ-9. 20% of patients screened positive for clinical depression. Of those who had a positive PHQ-9, 77% were women, 68% were patients were born outside of the US and 43% were exclusively Spanish speakers. 43% had co-morbidities (most frequently DM/obesity/HTN) and 31% reported poverty as a reason and/or stressor for being depressed. At follow-up, 40% of those with a positive PHQ-9 had a visit within three weeks of diagnosis and 39% were lost to attrition. So far 18 patients with a positive PHQ-9 have had consistent follow up for at least 3 months. 13 of these 18 patients (72%) had a PHQ-9 score reduction greater than 50%. 11 of these 13 patients had this PHQ-9 score reduction within 12 weeks of the follow up and 10/13 patients (76%) with good response had a initial score >15 (Moderately severe to severe depression). Of the 7 out of 13 patients that agreed to take medications, only 4 were compliant, 5 of these 13 patients attended the groups regularly.

**Conclusions:** A simple depression screening tool can detect high rates of undiagnosed depression in underserved communities, and can be easily incorporated into primary care settings. Multiple physician follow-up visits can help patients to build a more effective and sustainable treatment plan.

## **What are resident physicians' attitudes and beliefs regarding obesity management?**

Nichola Davis, MD, MS, Himani Shishodia, Bizath Taqui, Claudia Dumfeh, Judith Wylie-Rosett, EdD

**Context:** Primary care physicians often do not make weight loss recommendations or referrals for obesity treatment for their obese patients, but the reasons for this are unknown.

**Objective:** To address this, we examined internal medicine residents' beliefs and attitudes about obesity treatment, and assessed associations between resident characteristics, including resident BMI, and their beliefs and attitudes about obesity treatment.

**Design:** We conducted a survey of internal medicine residents in two ambulatory continuity clinics, one in Philadelphia PA, and the other in Bronx, NY.

**Instrument:** Survey items were adapted from a previous study, and included questions about frequency of weight loss recommendations, weight loss methods recommended, beliefs about the causes of obesity, and attitudes about obesity treatment.

**Results:** Of 156 residents invited to complete the survey, 101 (65%) responded. Residents were predominantly male (55%) with equal representation of each training year: PGY1 (35%), PGY2 (37%), and PGY3 (26%). Mean resident BMI was 24.0 kg/m<sup>2</sup>. Most residents (78%) reported frequently or always recommending weight loss. Increasing exercise was more frequently recommended than eating less, or referral to nutrition services. Most residents (80%) considered physical inactivity and high fat diets to be extremely important in causing obesity. Regarding resident beliefs about obesity treatment, 99% of residents believed that obesity is a chronic disease but only 11% believed that medications to treat obesity should be used chronically. Only 19% of residents felt competent in prescribing weight loss programs, and a smaller minority (10%) thought they were successful in helping obese patients lose weight. Although half of residents believed a 10% weight loss was sufficient to reduce the risk of obesity related complications, only 37% considered a weight loss of 20 pounds or less to be an acceptable outcome in the hypothetical diabetic patient with BMI 33.3 kg/m<sup>2</sup>. There were no associations between resident characteristics and their beliefs and attitudes.

**Conclusions:** Obesity is considered a chronic disease by resident physicians. The majority of residents, however, do not feel competent in prescribing weight loss recommendations and do not agree with chronic medication use in obesity treatment. Though current evidence suggests that exercise does not increase weight loss, residents recommend exercise more often than potentially more successful nutritional services. Only a minority of residents considered a weight loss of 20 pounds (equivalent to 10% in the hypothetical patient) to be an acceptable outcome. Our findings highlight the need for further training of internal medicine residents about obesity treatment options and goals.

## **The psychosocial impact of erectile dysfunction in Hispanic patients**

Manuel R. Esteban, MD, Gunther Groning, MD

**Context:** Fifty percent of men aged 40-70 experience ED at some point in their lives. Sexual functioning is an important predictor of quality of life. This topic has been unexplored in Hispanic men.

**Objective:** To examine how Hispanic patients experience and conceptualize ED and male sexual problems.

**Design:** Qualitative interviews.

**Setting:** The Family Health Center in the Bronx.

**Patients:** 13 Hispanic male patients with ED.

**Instrument:** An interview guide that included topics on symptoms, impact of the illness, concepts of cause, stigma issues and experiences with treatment.

**Outcome Measures:** Thematic findings from the manuscripts.

**Results:** Several themes emerged: 1) Symptoms of male sexual dysfunction, which included loss of libido and delayed ejaculation. 2) ED had a strong negative impact, affecting important aspects of patients' lives such as self-esteem and relations with partners. Depressive symptoms were also mentioned as a consequence of ED. 3) Three of our interviewed patients showed some positive changes in their relationships, expressed by closeness with their partners. 4) In general, talking about ED among men is a difficult issue. Among the patients interviewed in this study 10 said they would not share this problem with other men or friends under any circumstances. Several men attributed their secrecy to machismo. Six out of nine married men shared their ED symptoms with their wives, although just three of them let them know that they were taking Viagra. Among those whom also had an extramarital relationship, which were four in total, none share with their girlfriends neither symptoms nor the fact that they were using Viagra. 5) All 13 patients said they had no problem discussing ED with their physicians. 6) In general, participants reported fairly accurate concepts of the cause of ED. Major causes mentioned included age, psychosocial causes, comorbidities, medications and substance use or abuse. 7) Losses and economic hardship played an important role in participants' understanding of their problem. 8) The use and abuse of drugs and alcohol was acknowledged by many as a reason for their ED. 9) Twelve participants had tried Viagra, and 10 of these reported marked improvement. However, participants reported major economic barriers to obtaining Viagra. Subjects used several strategies when they could not obtain Viagra, which included folk remedies or alternative medicines from the Dominican Republic. Others reported that they tried to find substitutes to intercourse such as oral sex.

**Conclusions:** ED is a devastating condition. Patients are open and willing to talk but report difficulties disclosing to others. Lack of access to effective treatment creates significant distress and dysfunction. Physicians should address issues in routine visits and provide anticipatory guidance on comorbidities and medications side effects. They should also look for ways to provide access to ED medications.

## **The development and evaluation of integration of buprenorphine into HIV primary care**

Chinazo Cunningham, MD, Nancy Sohler, PhD, MPH, Galit Sacaju, MD, MPH,  
Susan Whitely, MD, Angela Giovannello, Pharm.D, Hillary Kunins, MD, MPH, MS

**Context:** Less than 20% of opioid-dependent individuals in the US are currently enrolled in treatment programs. Alternative treatment settings can expand options for opioid addiction treatment, and improve access to care. Opioid addiction treatment in the primary care setting is now feasible since the approval of buprenorphine, a mixed opioid agonist. HIV-infected substance users particularly experience disparities in care due to:

poor access to ambulatory health care, poor access to antiretroviral therapy and poor medication adherence.

**Objective:** To evaluate the integration of opioid addiction treatment with buprenorphine with HIV primary care in a Bronx community health center.

**Design:** Patient interviews at baseline, 1, 3, 6, 9, 12 months using ACASI (Audio Computer Assisted Self-Interviewing) technology. Medical records extraction at baseline 3, 6, 9, 12 months, patient satisfaction interviews at 3 months and provider satisfaction interviews yearly.

**Setting:** The Comprehensive Health Care Center in the Bronx.

**Intervention:** Incorporate opioid addiction management in the primary care model.

**Outcomes:** Evaluate the impact of integrated vs. non-integrated care on: HIV health outcomes, substance abuse outcomes, and health services utilization, as well as patient and provider satisfaction.

**Results:** There are no results to date. Several necessary steps are currently taking place for program development, which include the certification of the HIV providers at the clinic. The need for providers to undergo training to get their DEA "X" number for prescribing privileges, creating and providing access to clinical tools to assist in patient education, induction, and care. The provision of continuous resident and provider education sessions on substance abuse (including case conferences), access to substance abuse treatment experts, a clinical coordinator to assist in induction and follow-up with patients (who is present 4 days/wk). The development of a relationship with a local pharmacy for needed stock.

**Conclusions:** In the future we hope to provide integrated HIV and opioid addiction treatment at a community health care center, that will ultimately improve access to care, improve HIV and substance abuse outcomes and understand how and which patients benefit from receiving integrated care in a primary care setting (versus non-integrated care).

**Bronx BREATHEs – Bronx Einstein alliance for tobacco-free health: *A comprehensive tobacco control program for the Bronx***

Steven Bernstein, MD, Saba Jearld, MPH

**Context:** Smoking is the leading preventable cause of illness and death in the Bronx, where 20.5% of all residents smoke.

**Objective:** Bronx BREATHEs partners with a number of Bronx-based hospitals, health care networks, community health centers, community-based organizations, educational institutions, governmental agencies, and non-profit organizations dedicated to helping Bronx residents quit smoking.

**Intervention:** 1) Provide training, technical assistance, and follow-up to health care institutions in the Bronx regarding the design and implementation of systems to identify tobacco users at each patient encounter and provide brief cessation counseling. 2) Identify and promote direct cessation services in the form of intensive behavioral counseling in group or individual settings in the Bronx. 3) Increase the number of Bronx residents who use the services of the New York State Smokers' Quitline.

**Results:** In 2005 and 2006, the program was introduced to 11 ambulatory care sites through provider training sessions. As of mid-2006, Bronx providers made an average of 100 referrals to Fax-to-Quit per month. This is more than any other county in the state. Bronx BREATHEs also worked with the Montefiore WIC program, a nontraditional setting for tobacco cessation activities. The WIC program made over 70 Fax to Quit referrals. Bronx BREATHEs also worked within 7 partner sites to assess policy and procedure regarding assessment and advisement against smoking.

**Future Steps:** In the future Bronx BREATHEs will actively expand its network and partners, explore linkages with new provider sites, assess policy, and implement smoking assessment documentation in order to assist with cessation. It will also continue to promote the NYS Quitline in order to further increase the number of Bronx residents who use its services. Finally, the program will continue to provide technical assistance to CBOs for smoking cessation initiatives in the community, promote the usage of the Fax-to-Quit referral system, and introduce a new on-line referral system.



## **Conceptual models of depression in primary care patients: *A preliminary report from 3 pilot studies***

Alison Karasz, Ph.D, Liza Watkins, MA

### **1) Why isn't depression treated in primary care settings?**

**Context:** Depression is widespread in primary care settings and diagnosis & treatment rates are low. Screening programs often fail to improve treatment rates and clinical outcomes.

**Objective:** To develop the Illness Perceptions Questionnaire for Depression (IPQ-D), a questionnaire instrument for assessing conceptual models of depressive symptoms.

**Design:** Mixed Methods.

**Participants:** 120 Hispanic patients.

**Setting:** The Family Health Center and Center Health Care Center.

**Instrument:** Illness Perception Questionnaire for Depression (IPQ-D), qualitative interview focusing on experiences and expectations of treatment and demographics and acculturation scale.

**Outcomes Measures:** Screened patients for depression and administered a questionnaire, with the goal of developing an instrument for measuring conceptual models of depression. Assess patients' models of treatment using a qualitative interview.

**Results:** As predicted, 3 scales, reflecting 3 causal models of depression, emerged in Factor Analyses of the IPQ items. Overall, participants did not report disease models of depression and were not in favor of pharmacological treatments. Counseling was viewed favorably and emotional support from a physician was viewed as helpful for depressive symptoms.

**Conclusions:** Physicians support can have a positive influence on decreasing patients' depressive symptoms. Primary care physicians should take a more active role in treating depression.

### **2) Should we blame providers, or do patients play a role?**

**Context:** Many researchers feel that primary care providers are too rushed, unskilled, or uncomfortable to provide good care to depressed patients. There has been little research examining patients' understanding of depression and depression treatment. Some data suggests that many patients view depression as a 'life problem' rather than a disease, and are adverse to treatments. Culture makes a difference, for example white, middle class patients may be more likely to conceptualize depression in medical terms, and request standard treatments. How do patients communicate conceptual models of depression when they talk with their doctors? How do conversations that result in prescriptions and referrals differ from those that do not?

**Objective:** To examine the relationship between conceptual representations, as assessed by the IPQ, and outcomes of the conversations between providers and depressed patients.

**Design:** Mixed methods.

**Participants:** 100 depressed patients of any ethnicity/SES.

**Setting:** Institute for Urban Family Health.

**Outcomes Measures:** Interview data, PHQ, IPQ-D, qualitative interview focusing on experiences and expectations of treatment, demographics and acculturation scale, post visit

interview observational data and tape-recorded consultation between providers and depressed patients.

**Results:** To date, 35 patients have been enrolled in Studies 2 & 3, 20 provider-patient consultations have been recorded, and approximately 10 patients have completed the 1 month follow-up. Future studies will include a “companion” study which examines physicians’ conceptual models of depression and their relationship to treatment decisions. Data will include interviews with physicians and possible co-analysis of transcripts of visits with depressed patients. A physician collaborator will be the principal investigator.

### **3) Why doesn’t treatment work better, anyway?**

**Context:** Only a small fraction of patients initiating treatment complete the full course. Adherence rates and response rates to antidepressant treatments are low. Data indicates that life events and situations play an important role in the worsening or remission of symptoms. The link between adherence, treatment outcomes, life events, and patients’ conceptual models of depression has not been studied.

**Objectives:** To understand how conceptual models of depression change over time, assess whether patients’ conceptual models of depression shape adherence, assess whether patients’ conceptual models of depression affect response to treatment or remission from symptoms, and investigate how patients understand the role of life events in the course of their illness. Design: Mixed methods. Follow up data collected at Months 1,3,6 & 9 months and interview patients by phone.

**Instruments:** PHQ—Depression Screen IPQ-D, qualitative interview focusing on current illness experiences, measure of treatment adherence, and Life Events Questionnaire.

**Outcomes Measures:** Assess symptom change/remission, assess adherence, assess current life events, and examine how patients’ conceptual models of depressive symptoms reflect these important variables.

**Results:** Data collection underway as described for study 2.

**Conclusions:** Conducting research as an ‘outsider’ is complicated. The time factor may be unpredictable and methods that work in one setting don’t necessarily work in another setting. However, conducting research outside one’s own institution has huge potential for the development of new hypotheses and new collaborators. It is important to build practice based research networks.

## **Childhood asthma and exposure to cigarette smoke**

Rob Clarick, MD, Eva Rynjah, MD, Baba Sawiba, LPN, Gloria Farre-Munoz,  
Jennifer Klein, RD

**Context:** Exposure to cigarette smoke is a significant asthma trigger, leading to an increased risk in the number and severity of attacks. Interventions are needed to decrease asthmatic children's exposure to second hand smoke.

**Objectives:** To investigate exposure of pediatric asthma patients to secondhand cigarette smoke. To implement a series of interventions in a primary care center to identify risk of secondhand smoke exposure and provide a tailored intervention aimed to decrease exposure to cigarette smoke in the home of asthmatic children.

**Setting:** Urban primary care practice located in the Bronx, NY.

**Participants:** Parents and caretakers of children with asthma.

**Methods:** Questionnaire administered by nursing staff to parents and caretakers of children with asthma from 1/05 through 10/05 during acute and routine medical visits. Data collected included source of cigarette smoke exposure, by person who smokes and by location within the home. Parents who smoked were given educational material regarding smoking cessation and referrals to assist with smoking cessation.

**Results:** 411 pediatric asthmatic patients identified. 51 (12.4%) pediatric asthmatic patients with tobacco smoke exposure in the home. 39 smokers identified by questionnaire. 17 smokers identified as interested in quitting. Location of patient's tobacco exposure: bedroom (n=8), bathroom (n=7), hallway (n=4), and entire house (n=11).

**Conclusions:** Measurement of project impact was limited by inability to do complete follow up with the intervention group. Subsequent follow-up identified 4 parents who stopped smoking (as documented at later pediatric visits) after identification and referral during this project. Additional outcomes included increased awareness of smoking cessation programs among staff and providers. Materials were used not only with parents of asthmatics, but by all providers, yielding approximately 50 referrals to the NYS Quitline smoking cessation program. The site redesigned its asthma care practice flow to improve access to educational materials and smoking cessation aids and the site modified the asthma treatment room to include an asthma and smoking cessation education center. Study design improvements are needed to determine effect of intervention on rates of smoking cessation and subsequent pediatric asthma frequency and severity of attacks.

**The morning after: *What happens when patients call for emergency contraception?***

Vanita Kumar, MD, Louisa Hann, MD, Marji Gold, MD

**Context:** Emergency contraception (EC) has been shown to be effective in preventing unintended pregnancy. Plan B received FDA approval as a dedicated product for EC in 2000. As of 2005, Plan B remained under-prescribed and underutilized. Although Plan B just received FDA approval for OTC status for women over 18, it is still available only with a prescription in most states.

**Objective:** To investigate the potential structural barriers that patients face when they need EC and call to obtain a prescription.

**Design:** Qualitative phone interview used to access a prescription for EC by phone.

**Participants:** Medical students.

**Setting:** Family medicine/primary care clinic in the Bronx.

**Intervention:** Trained medical students, using an IRB approved script, called 19 different family medicine and primary care internal medicine clinics.

**Outcomes Measures:** Calls were rated as a success if they resulted in either a phone prescription for EC or an appointment at the clinic within 3 days.

**Results:** Of the 19 clinics in the Bronx that were called, 94% of clinics were family medicine, 6% were pediatrics or internal medicine. Twenty-two calls were made by men, 82 calls were made by women. Clinic staff did not consider EC a primary care service. Staff had incorrect information regarding EC use and action. Staff also treated callers disrespectfully. Callers had difficulty getting access to prescriptions and information.

**Conclusions:** Patients may face significant barriers when they call primary care clinics for EC. Provider education, systems changes, and emphasis on advanced prescription are needed to increase timely access to EC. Suggested next steps include improving access to family medicine/primary clinics, developing EC calls triage protocols, and training and education on EC and its value for clinic staff and physicians.

## **Diabetic continuous quality improvement at the institute for urban family health**

Kwame A. Kitson, MD

**Context:** Outpatient community health center electronic health record data remains an untapped resource in multiple potential research areas. As more hospitals and community health centers gain better access to their own data, the research implications are staggering if the data is handled adroitly.

**Objective:** To improve quality of care to patients and improve patient outcomes on several risk factors.

**Design:** Utilized best practice alerts on an electronic health record (EHR).

**Setting:** Institute for Urban Family Health (IUFH) in the Bronx.

**Participants:** Clinical staff.

**Instrument:** Epicare (an EHR system) that was implemented at several sites, including IUFH. Clinical leadership at IUFH aggressively instituted multiple decision support tools (best practice alerts) based primarily on hedis criteria, pneumovax, seasonal fluvax, breast cancer screening, cervical cancer screening, lead screening. Hgbalc testing and control. Initial best practice alerts also included random glucose testing, ophthalmology consults for diabetics, hgbalc poor control alerts, nephrology consults for patients with greater than 1.8 serum creatinine, and LDL screening.

**Results:** Patients outcomes and quality of care improved substantially in several areas over about a two year time span. The number of patients in the diabetes registry increased by 20%, the percentage of patients reporting a Hgbalc of 9.5 and 7.5 decreased, and annual opthal consults went up 16%.

**Conclusions:** Continuous quality improvement research is greatly enhanced for health care sites that have fully integrated electronic health records. Quality improvements are further enhanced with the use of electronic decision support alerts.

**Continuous quality improvement of diabetic care using electronic medical records:  
Review of two quality improvement interventions**  
Joseph Lurio, MD

**Review of crystal reports to improve clinical outcomes for diabetes**

**Context:** Quality improvement interventions can improve clinical indicators for diabetes.

**Objective:** To form a work group composed of providers (MDs, DO, FNP), Nurses, SW. Review data of the group and look for best practices.

**Design:** Randomized retrospective review of Crystal Reports in medical charts.

**Setting:** Manhattan West Center

**Participants:** 30 Patients with DM

**Instrument:** Sort charts by A1c and divide into two randomly selected groups of 15 patients with A1c <7% and >7%. Use chart abstraction tool to gather data about practice, not individual providers.

**Outcomes Measures:** Clinical indicators for diabetes.

**Results:** The indicators of good control included: Hemoglobin A1c (within 6 months), percent patients with A1c < 7.0, rate LDL (within 12 months), rate annual microalbuminuria screen, rate annual foot assessment (or podiatry referral) and rate ophthalmology assessment.

**Conclusions:** Nutritionist referral appears to confer benefit. Diabetics who come in for routine diabetic care do better than those coming in for episodic care. Patients on insulin show worse control. In the future, review use of Diabetes BPAs and SmartSets (see IUFH Presentation) and continue ongoing discussion of Diabetes Standards of Care at monthly staff meetings. Social work staff will call in Diabetics not seen within 6 months. We will provide regular feedback of performance data to medical and nursing staff.

**Nursing staff designs intervention to improve clinical outcomes for diabetes**

**Context:** Quality improvement interventions can improve clinical indicators for diabetes.

**Objective:** To improve clinical indicators of diabetes in patients with the highest A1cs.

**Design:** Telephone calls.

**Setting:** Manhattan West Center in Manhattan.

**Participants:** Patients with A1c >7%.

**Intervention:** Obtain Crystal Report of monthly Hgb A1cs. Nurses call in patients with highest A1cs for nurses to review medication usage, diet and exercise.

**Outcome Measures:** Identify and bring in poorly controlled diabetics and improve their clinical indicators on diabetes.

**Results:** The intervention increases use of Diabetes Smart Set, facilitates documentation for DM centered visit, prompts appropriate evaluations, and increases medication, diet and self monitoring adherence. It also increases foot exams and filament testing and facilitates orders for patient education and contracting. Results of QI project broadcast to Clinical Directors Group of IUFH. Nursing and Social Service interventions were institutionalized throughout 13 centers. Diabetes Smart-set was refined and its use encouraged.

**Conclusions:** We have learned that we can prompt providers to perform routine diabetic care whenever the patient presents. We can also identify and bring in poorly controlled diabetics, facilitate Referrals and lab tests.

## **Pharmaceutical samples-A qualitative study**

M. Diane McKee, MD, MS, Nancy Solar, PhD

**Context:** The distribution of free sample medications by sales representatives is a common marketing practice of pharmaceutical companies. However, little is known about how clinicians and office staff perceive the benefits and risks of this practice, particularly in safety net clinical settings.

**Objective:** We explored perceptions of the benefits, risks and ethics related to distributing samples in outpatient community health centers by examining their 1) decisions to use samples; and 2) attitudes about the role of pharmaceutical representatives.

**Design:** In-depth qualitative interviews.

**Setting:** Six family practice and general internal medicine practices serving low- and middle-income patients that recently eliminated the distribution of samples.

**Participants:** Physicians, nurses and administrators of target health care centers (N=20).

**Results:** Three contrasting frameworks emerged. First, respondents who were strongly opposed to all interactions with pharmaceutical representatives (including accepting samples) based their arguments on concerns about conflicts of interest (e.g. treatment decisions influenced by reps.) A second group identified neither strong benefits nor harms from interactions with reps and saw limited value in accepting medication samples. They placed greatest emphasis on distributive justice (e.g. having medications available for those who most need them). A third group identified specific benefits from interactions with representatives and from accepting samples, basing their arguments on the importance of having free medications available for low-income patients, and stressing a strong desire for physician autonomy and the ability of physicians to control potential influence of pharmaceutical marketing practices. Across all groups, respondents expressed their opinions in terms of how to best serve their patients, especially those with inadequate drug coverage.

**Conclusions:** Most staff and providers evaluated marketing practices from the perspective of protecting and serving patients. Despite this, diverse opinions about these practices emerged, based on weighing ethical dilemmas, practical constraints, and desire for physician autonomy. Definitive data supporting hypothesized benefits or harms to patients from sampling practices are not available, and are clearly necessary to better guide policies regarding interactions with pharmaceutical industry representatives.

## **CICERO's participation in the Hopkins HIV research network (HIVRN)**

Robert Beil, MD, Arthur Blank, PhD, Paul Meissner, MSPH

**Context:** The CICERO Program is one of nineteen medical practices that participate in the Hopkins HIV Research Network (HIVRN). Together these medical practices treat more than 14,000 patients with HIV infection.

**Objective:** To obtain, analyze, and disseminate current information on the delivery of services to people with HIV infection.

**Design:** Comparison of yearly data collection of patient information for CICERO vs All Other HIVRN sites.

**Setting:** HIVRN, which includes 10 CICERO Program Sites with 798 patients.

**Participants:** Patients with HIV infection.

**Instrument:** Electronic data collection and chart review.

**Outcomes Measures:** Key measures include age, sex, race, HIV transmission risk factors, AIDS-defining illness, CD4, Viral load, antiretroviral drugs, opportunistic illness prophylaxis drugs, Hepatitis (HCV, HBV) serology, date of death and cause, other co-morbidities, metabolic data, such as lipids and diabetes, other drugs, and resistance tests.

**Results:** The average age for both CICERO and HIVRN patients is early forties. The majority of HIVRN patients are male (71%), while men make up less than half of the CICERO patients (45%). Most patients are Black and Hispanic; however CICERO patients are twice as likely to be Hispanic. Those most at risk in HIVRN are men who have sex with men (38%), followed by heterosexuals (29%), and intravenous drug users (12%). Those most at risk in CICERO are heterosexuals (59%), followed by intravenous drug users (15%), and men who have sex with men (12%). The median CD4 count for HIVRN and CICERO patients is 376 and 394 respectively. The utilization results are as follows: IP Utilization/100 PY is 30.7 (HIVRN) and 37.6 (CICERO), OP Utilization/PPY is 4 (HIVRN) and 7 (CICERO), both had referrals for mental health and substance abuse treatment. HAART therapy is used for 81% (HIVRN) and 44% (CICERO) of patients with CD4<350 and 84% and 50% of patients with CD4<200. PCP prophylaxis was 76% (HIVRN) and 87% (CICERO) and MAC Prophylaxis was 71% (HIVRN) and 90% (CICERO).

**Conclusions:** Ability to compare performance to similar care settings is useful. CICERO demographics are different in terms of race/ethnicity, gender, and risk factors. Resource utilization for CICERO is higher and may reflect non-MD visits. The difference in proportion of patients on HAART might be due to having a lot of CitiWide patients (active polysubstance use and homeless population) or variety of different provider dependent thresholds for starting patients on therapy. Use of electronic extraction methods to identify patients is difficult. Chart abstraction is needed to review patient eligibility as a data check.



## **Asthma relief street**

Acklema Mohammad, MD, Sylvia Romero Johnson

**Context:** The prevalence rate of asthma in New York City is 10%. There have been declining trends in asthma morbidity and mortality in NYC with more dramatic drops in lower income communities.

**Objective:** To ensure that patients with asthma obtain healthcare to improve their quality of life.

**Design:** Provide high quality services in a culturally competent and barrier-free environment using the six components of the care model to assure an interdisciplinary approach.

**Setting:** 3 Urban Health Plan health centers and 5 school based health clinics located in the South Bronx.

**Participants:** Low income patients with asthma.

**Intervention:** Change the daily routine care of asthmatics by following the Asthma Action Plan.

**Outcome Measures:** Improvement of the following: > 10 Symptom-Free Days, > 90% Current Severity Assessment, > 95% Severity Assessment of Persistent Treatment with Anti-Inflammatory Medications, > 70% Documentation of Self-Management Goal Setting, > 90% Influenza Vaccine Within Past 12 Months, and < 55% Urgent Care Visits.

**Results:** The following goals were reached: over 90% of patients have received a severity assessment; over 70% of patients have a documented self-management goal, over 90% of patients are on an anti-inflammatory medication, average symptom free days are greater or equal to ten for most patients, and there are now 6414 patients currently in the registry. There has been a 37% decrease in average hospitalization rates for children 0-14 years of age in NYC and a 67% decrease in hospitalization rates for the children in Hunts Point and Mott Haven in the South Bronx.

**Conclusions:** This system of care truly works. You must be willing to be creative in terms of financial and human resource strategies. Constant monitoring and training of providers and staff regarding asthma program protocols leads to excellent medical practice. In the future, we plan to create the Asthma Relief Street Club, improve patient access to home evaluation and support the spread of sustainable asthma protocols (including self-management education) in clinical settings, schools, daycare, and housing.

**An investigation of douching practices in the botánicas of the Bronx**  
Matthew R. Anderson, MD, MS, Diane McKee, MD, MS, Jolene Yukes,  
Adelyn Alvarez, MA, Alison Karasz, PhD

**Context:** Douching is a common practice and has been associated with adverse health outcomes.

**Objective:** To explore douching attitudes and practices in botánicas, stores that provide healing and spiritual services to immigrant communities.

**Design/Setting:** Qualitative interviews conducted in 10 botánicas located in New York City.

**Results:** Douching was not easily separated from the more holistic concerns of botánica customers involving health, well-being and spirituality. These issues included abortion, infertility, menopause, the prevention and treatment of infections, sexuality, cleanliness, hygiene and relationship issues. The vagina was seen as a sensitive, even vulnerable part of the body, not clearly distinguished from other female organs. A variety of products were used in the vagina in the form of creams, douches, suppositories, baths and herbal steaming of the urogenital area. Alum, an astringent, was used for the purposes of vaginal tightening; this was done to enhance sexual pleasure for the partner, to make the vagina “younger”, or to hide evidence of infidelity.

**Conclusions:** Botánicas are part of a complex healing system with conceptual models quite different from those of allopathic medicine. These models may not be unique to the botánicas. In counseling patients it is important to understand the meaning and context of douching.

**Is perception of coronary heart disease (CHD) risk associated with health behaviors in an inner-city population?**

Janice M. Barnhart, MD, MS, Natania Wright, Nereida Herrera, MD, Frank Silagy, MD

**Context:** A multidimensional scale has been developed to measure personal risk perception of CHD among women with coronary risk factors enrolled in the Women's Health Initiative. This scale was previously found to discriminate between various groups with regard to their perception of personal risk.

**Objective:** The purpose of this study was to pilot test the scale in a population that includes both men and women and examine the association between personal risk perception and health behaviors.

**Design:** From August 2004 through September 2005, African American, Hispanic, and White subjects were recruited from 3 ambulatory medical clinics in the Bronx. The *Coronary Risk, Individual Perception* (CRIP) is a 16-item scale to assess perceived personal CHD risk. Participants were also surveyed about CHD risk knowledge (10 items).

**Results:** The majority of participants were women (70.3%, n=180) and Hispanic (62.1%, n=159). About 45% (n=116) of the respondents did not complete high school. The 16-item CRIP scale was found to be acceptable (Cronbach's  $\alpha = 0.76$ ; inter-item total correlation=0.34). Risk perception for CHD did not differ by education, marital status, smoking status, or race. Younger participants and those with diabetes, hypertension, or obesity had heightened perception of coronary risk (i.e. higher CRIP scores). Risk perception was inversely associated with healthy fat and fiber intake ( $r = -0.17$ ;  $p < .005$ ) and exercise ( $r = -0.19$ ;  $p < 0.005$ ). General knowledge of coronary risk factors was moderate (mean score =  $7.8 \pm 1.3$  for 10 questions). Less than 50% (n=115) of all subjects knew that MI was the #1 killer of adults. About 23% and 63% knew their most recent cholesterol value and blood pressure, respectively.

**Conclusions:** In this study, overall knowledge of coronary risk factors was suboptimal and there was low-to-moderate perception of personal risk of CHD. Persons at high risk of CHD were aware of their risk, yet engage in unhealthy behaviors. To reduce disparities in CHD, a culturally- sensitive risk communication intervention might be needed to activate and sustain healthy behaviors.

**South bronx obesity reduction initiative (SoBORI): *Advocating for a weight loss intervention***

Rebecca Bernstein, MD, Sara Lorenz, MD, Galit Sacajiu MD, MPH

**Context:** The obesity epidemic is at the epicenter of health inequality in America with its effect mainly on minority and poor populations.

**Objectives:** 1) To assess quality of life and perceptions of locus of control as both predicting factors and outcome measures of participation in the integrated weight reduction program. 2) To describe and evaluate the process of implementation of the program to facilitate replication.

**Design:** Examined short-term health outcomes of participants after completion 10 weeks of the program. Participants: An underserved minority community. Intervention: We introduced a weight reduction intervention that incorporated relevant cultural ideas surrounding food rituals and body image into a community-based program that could be housed within an existing primary care service.

**Methods:** We developed collaboration among medical providers, a commercially available weight loss program and a Managed Care company to implement SoBORI. Patients at our community health center were referred by their primary care providers and were eligible if: >18 years, BMI>30, and agreed to participate. Exclusion criteria included: pregnancy, uncontrolled psychiatric disorders, and chronic systemic steroids use. Eligible patients were consented and referred to a free, on-site 10- week program with an option to continue after that trial period. The weight loss program was integrated into patients' ongoing health care. In addition to clinical outcomes measures such as weight loss, blood pressure, and lipid profile that are currently being collected, we also measured life style and psychosocial outcomes. These included adherence to intervention, quality of life, health related locus of control, and self perceived body image.

**Results:** Since February 1st 2005, 436 patients were referred to the program. Of those 342 expressed interest and 152 consented to participate and came for the first intervention meeting. Of those 86 (57%) continued and adhere to the program. The participants were mostly women and US- born ethnic minorities. Weight loss was calculated at 10 weeks and up to 20 weeks from the start of the program. Among adherent participants an average of 0.94lb were lost per week. On average, participants' goal for weight reduction was 17lb (range 10-26lb) higher than recommended. The calculated score Weight Locus of Control (WLOC) was not helpful to predict intentions to lose weight. Lastly measured on a 5--point Likert-type response scales (1-strongly disagree and 6- strongly agree), were questions regarding causes of obesity (I am overweight because...). An average of 5.2 (range 4-6) was calculated for eating habits and of 3.7 (range 2-6) was calculated for lack of exercise, but 1.4 (range 1-3) was calculated for family tendency.

**Conclusion:** Our results suggest among other things that 1) obese patients who are committed to changing their eating habits will adhere to a financially affordable weight loss program; 2) in this setting successful weight reduction is related to the perception that eating habits and lack of exercise are the main causes for weight gain; and 3) higher adherence rates to the integrated weight reduction program is associated with improved quality of life. The initial successful results should be further investigated in a randomized control study to prove efficacy.

## **Improving appropriate therapy for children with asthma**

Sandra F. Braganza, MD, MPH, Iman Sharif, MD, MPH, Philip Ozuah, MD, PhD

**Context:** The National Asthma Education and Prevention Program (NAEPP) recommends that physicians classify severity for patients with asthma. However, it is unclear whether correct asthma severity classification (ASC) increases appropriate asthma therapy.

**Objective:** To test whether a simple intervention can improve appropriate therapy for children with asthma.

**Design:** Randomized controlled clinical trial.

**Setting:** Inner city academic health center housing continuity clinics.

**Participants:** 14 pediatric residents and 8 pediatric attendings.

**Intervention:** We developed a 2 x 3" sticker listing the NAEPP criteria for ASC highlighting criteria for inhaled steroids. During 12/04-1/05, we reviewed charts of scheduled patients to identify children with asthma. Using alternate week randomization, we placed stickers on clinic visit forms during "intervention" periods, but not during "control" periods. After each physician encounter, a blinded research assistant used a standardized questionnaire to interview parents about their child's asthma symptoms and medication use. An investigator reviewed the charts of all patients treated for asthma and abstracted data about physician documentation of ASC. Using the interview classification as the gold standard, we defined two dichotomous variables, one to code whether the physician-documented ASC was correct, and one to code whether the subject's medication use was appropriate. Multivariate regression adjusted for potential confounders (level of training, visit type, ASC, asthma action plan in chart) and clustering by physician.

**Outcomes Measures:** Using the asthma severity classification obtained by parent interview as the criterion standard we coded: 1) Whether or not the physician's asthma severity classification was correct, 2) Whether or not the child was using appropriate asthma therapy. We defined appropriate therapy as the use of inhaled corticosteroids by a child with symptoms consistent with persistent asthma.

**Results:** We reviewed 443 charts (211 intervention; 232 control). Intervention subjects were more likely to have physician documentation of ASC (99% vs. 75%,  $p < .001$ ). We interviewed 313 subjects (138 intervention, 175 control). The groups were as likely to have persistent asthma (81% vs 86%,  $p = .219$ ). Of these, 135 (98%) intervention and 128 (73%) control subjects had physician-documented ASC. Intervention subjects were more likely to have correct physician documented ASC (46% vs. 28%,  $p = .003$ ) and more likely to report using appropriate therapy (64% vs. 50%,  $p = .017$ ). Overall, the intervention significantly increased the odds of correct ASC (AOR=2.58, CI:1.45, 4.67) and appropriate therapy (AOR=1.77, CI: 1.21, 2.60).

**Conclusions:** The use of an asthma sticker on visit forms resulted in increased documentation and more accurate ASC. The intervention also increased the use of appropriate asthma therapy by children with asthma.

**The AAMC academic chronic care collaborative and the williamsbridge family practice/family medicine residency experience**

Victoria Gorski, MD, Joanne Dempster, MD, Sandra Barnaby, RN, MPH, Jennifer Klein, RD, Sean Misciagna, MD, Deb Nandini, MA, Zach Rosen, MD, Yinghua Lui, Angelique Jenkins-Armstrong

**Context:** There has been continued support for the “spread” of the Chronic Care Model (CCM) to community health centers. The American Association of Medical Colleges has called for “spread” of CCM to academic practices through its Academic Chronic Care Collaborative (ACCC). Title VII funds were awarded to Montefiore’s residency in family medicine for residency education in the ACGME competencies System-based Practice and Practice Based Learning and Improvement.

**Objective:** To redesign the academic practice at the Williamsbridge Family Practice (WBFP) using the CCM, so that chronic disease management is integrated into the process of resident education in order to meet the following clinical objectives: 1) reduce the average HbA1c for the population of patients with Diabetes to less than 7.0%. 2) 90% of the patients with Diabetes should have blood pressure less than 130/70. 3) 70% of patients with Diabetes should have a documented self-management goal and 4) 90% of patients should have a comprehensive foot exam in the past year.

**Design:** Faculty development in the CCM and CQI. Curriculum development in the CCM and CQI for residents to include both content areas and experiential activities.

**Participants:** WBFP patients with diabetes, WBFP staff, faculty and residents of the family medicine residency program.

**Intervention:** Weekly team meetings at WBFP to design and implement rapid cycle PDSAs for the practice. Monthly team meeting with additional input from Senior Team Leader and Education consultant to review PDSAs and discuss integration with residency education. Participation in ACCC Learning Sessions four times throughout the year. ACCC coordinated monthly conference calls, mandated reports and feedback. Faculty Development via distribution of selected readings and special workshops. Resident orientation to new CQI initiative at annual Spring Retreat and in new PGY-1 didactic session. Collaborative planning among clinical education, and practice improvement leaders.

**Education Process Outcomes:** Residency faculty knowledge and skills improvement in CCM, fishbone diagrams and principles of CQI. Increased review of diabetes registry data between faculty and residents. Residency faculty, residents and staff scheduled to start CQI teams at two family medicine training sites (WBFP and the FHC) starting Sept '06.

**Clinical Process Outcomes:** Establishment of diabetes registry. Implementation of nursing support staff performing diabetic foot exams. Implementation of diabetes self-management group education. Provision of staff education in ABCs. Implementation of an Intensive Diabetes Management program for people with A, C > 9.0% and LDL > 100.

**Results:** Average HgA1C decreased from 8.0 to 7.7-7.8. Multiple clinical and education process changes occurred.

**Conclusion:** The project has had many successes and is ongoing. Data management has been difficult with multiple limitations in information technology and a CIS in transition. There has been staff turnover at several levels, in a variety of roles as well as threats to Title VII funding. We will continue to implement the project with available resources and institutional support for ongoing team functioning.

**Family diet, exercise behaviors, and readiness to change in an urban primary care population**

M. Diane Mckee, MD, MS, Lucia F. O'Sullivan, PhD, Darwin Deen, MD, MS, Stacia M. Maher, MPH, Arthur Blank, PhD

**Context:** Pediatric obesity is increasingly common in the urban community. Family-based approaches for prevention are needed.

**Objective:** Preliminary analysis of health behaviors and readiness to change for an urban primary care population.

**Design:** Telephone survey, administered before a practice-based intervention.

**Setting:** Six primary care practices serving low-income patients in the Bronx.

**Participants:** Parents/guardians of 2-4 year old primary care patients (n=108).

**Instrument:** Measures of demographics, child diet and activity (PNB), adult diet (SC-N) and exercise (IPAQ), and readiness to change family and personal health behaviors.

**Results:** Responding parents were 60% Hispanic, 33% Black, 61% on Medicaid, and 48% receiving WIC assistance. Few reported poor eating habits (mean 5.26 on scale 0-12 with high scores indicating atherogenic diets), despite a mean parent BMI of 28.1 (22% overweight and 37% obese). Over half engaged in no vigorous (55%) or moderate (54%) exercise during the week, rates far below national guidelines of 30 minutes of moderate activity per day (CDC, 2006). Parents reported 43% of their children watched 3+ hours of weekday TV, in line with national averages, but above national guidelines (2 hours or less). Parents indicated children were active an average of 2.0 days per week (21% reported no activity). Few reported that their children ate poorly (mean = 11.8 on scale 0-29), although difficulty monitoring child's diet and activity was associated with poor eating habits ( $r = -.21$ ) and less physical activity ( $r = -.25$ ). Parents reported relatively high readiness to change [means 16.6 (diet) and 15.9 (activity) on scale of 0-21]; overweight and obese parents reported higher scores than those with normal weight.

**Conclusions:** Family-based approaches should stress increasing activity levels for urban families, although closer monitoring of family diet is indicated. Prevention efforts could capitalize on parents' high reported readiness to change own and children's diet and activity.

**Predictors of poor glycemic control among Latinas with diabetes: A multimethod study**  
M. Diane McKee, MD, MS, Jeffrey Levine, MD Arthur Blank, PhD Jason Fletcher, MA, MS,  
Nellie Fernando, Eliana Korin, Charles E. Schwartz, MD

**Context:** Type 2 diabetes mellitus (DM) is more common among Latinos than among non-Hispanic whites and control of blood sugar is less successful. A clear understanding of how psychosocial issues affect diabetes control is lacking for low-income Latinas.

**Objective:** To explore the influence of family environment and mental health on glycemic control for Latina women to inform development of primary care interventions to improve diabetes outcomes.

**Design:** Interviewer-directed survey; in-depth qualitative interviews with a subset (n=20) of sample.

**Setting:** Two family medicine practices serving low-income patients in the Bronx.

**Participants:** Latina women with at least two office visits in the previous year, defined as out of control (HbA<sub>1C</sub> > 9.5 on two occasions or >10.5 on one reading over past year) or in-control (HbA<sub>1C</sub> less than 7.5).

**Measures:** Quantitative: Depression (PHQ), Bipolar Illness (MDQ), Regimen Specific Social Support, Problem Areas in Diabetes (PAID), Family Cohesion and Conflict, Families, Stanford Physician Trust, and Health Literacy. In-depth qualitative interviews.

**Results:** Women with out-of control DM (OC; n=40) and in-control DM (IC; n=62) were similar demographically. Health literacy was lower than the general population (mean 26.8). PHQ scores  $\geq 10$ , compatible with clinically significant depression, were present in 29% of subjects but did not differ between groups. The proportion with MDQ $\geq 7$ , compatible with bipolar spectrum disorders, was higher in the OC group (35.9% vs 14.5%, p=.02). The PAID scale indicated greater diabetes distress in the OC group (38 vs 25, p=.046). PHQ and PAID scores were highly correlated (R=.74). Family cohesion scores were high and family conflict moderate but not discriminating of glycemic control. Analysis of PAID by question suggested that IC subjects had greater optimism and self-efficacy, but multivariate analyses did not result in stable models discriminating IC and OC groups in these domains. Qualitative interviews identified three thematic areas: (1) Issues relating to the specific Latino context, particularly a family history of diabetes with adverse outcomes; (2) Maladaptive cognitive styles; and (3) Sources of resilience. In-control and out-of-control subjects differed with regard to the frequency of specific maladaptive cognitions: blurring of symptoms between mind and body; excess fatalism about outcomes; conceiving of treatments as worse than the disease itself; and denial about current levels of self-care.

**Conclusions:** Significant levels of depression were found in nearly one-third of subjects whether IC or OC. Bipolar disorders may be more common among OC subjects. Further studies to understand and improve diabetes outcomes in Latino women should focus on psychological factors in addition to depression, particularly bipolar disorders. Qualitative findings suggest that most women are not receiving culturally sensitive diet advice. Interventions need to reflect cultural meaning of diabetes, particularly the family heritage, and its experience as a legacy of tragedy. Interventions must respect women's role caring for others.



**Successful scale up of HIV counseling and testing using ACTS: *Assess, consent, test, support***

Donna Futterman, MD, Paul Meissner, MSPH, Stephan Stafford, Michelle Lyle, MPH, Robert Beil, MD

**Context:** Approximately 250,000 Americans are unaware they are HIV+ accounting for two-thirds of new infections annually. Prompt identification of HIV+ individuals can reduce transmission and facilitate early links to medical care.

**Objective:** To identify those affected using routine HIV counseling and testing (C&T) that is different from the current time-intensive model of HIV C&T, which is a major obstacle to achieving this.

**Intervention:** ACTS is a practical, reality-based way to deliver routine HIV C&T in health care settings. In contrast to conventional 45 minute HIV C&T sessions delivered by counselors, ACTS reduces counseling time to 5-10 minutes while meeting CDC and DOH requirements and can be delivered by doctors, nurses and counselors. The ACTS protocol includes *Assessing* patients' need for testing, obtaining *Consent*, *Testing* and delivering results and providing *Support* in obtaining warranted treatment and/or preventive services. ACTS implementation involves academic detailing, a training manual, pocket guide, chart stickers and promotional posters and brochures.

**Results:** In a two-year randomized trial of 10 community health centers in the Bronx, NY, serving approximately 50,000 eligible patients annually, significant increases in HIV testing rates at ACTS sites compared to control sites using standard C&T were seen ( $p=0.017$ ). Average control testing rates improved from 8.7% in 2003 to 10.9% in 2005. Meanwhile ACTS sites dramatically increased testing from 10.3% to 24.1%. To achieve such success, numerous administrative barriers were overcome and continuous support was necessary.

**Conclusions:** ACTS should be utilized by clinicians as an effective method for achieving more routine HIV testing of patients in clinical care settings.

**A pilot project to introduce practice based small group learning to the United States**  
Bob Morrow, MD, Tom Elmslie, MD

**Context:** In Canada, about 3400 physicians organized in 450 small groups are involved in a case-based, practice-focused training organized by the Foundation for Medical Practice Education. Although 14 years old, this highly interactive program sets a high standard for CME of a new type. Stable groups formed by peers and led by a peer facilitator provide a safe forum for difficult educational issues.

**Objective:** To introduce this program into the US environment. Learner funded and focused small group learning should provide acceptable, inexpensive, and efficacious CME for physicians in the US.

**Design:** A pilot program has been started by the NYSAFP to introduce FMPE's PBSG learning to the US. Setting: New York State area. Participants: US Doctors.

**Intervention:** This program will include facilitator training, and feedback to Canadian authors regarding editing the training modules to fit US needs.

**Outcomes Measure:** Evaluate the practicality of a program which does not grow out of the medical educational culture of US CME.

**Results:** Groups in the Bronx, Yonkers, Manhattan, Saratoga, Rochester, and Syracuse have met or been planned. Fees have been established. The AAFP has reviewed the program and accepted its Canadian authors as sources of Evidence Based Medicine. Prescribed credit has been granted.

**Conclusions:** The AAFP and family physicians appear ready for PBSG as a new and robust form for Continuing Professional Development (CPD). Prior lack of a culture of small group interactive education slows the acceptance of training, but is also an opportunity for change. External funding is not part of national PBSG learning in the US.

## **Resident comfort with procedural skills**

Linda Prine, MD

**Context:** Unintended pregnancy is a public health issue that has a ripple of negative consequences for our patients, their families and society.

**Objective:** To help patients plan their families, we have begun to offer more early abortion services in our residency practice and two attending practices.

**Design:** Residents surveyed in April 2006, and the differences between PGY 1, 2, and 3 years are compared.

**Setting:** Beth Israel in the Bronx.

**Participants:** Residents in Urban Family Medicine.

**Intervention:** Remodeled gynecology rotation and offered residents training in early abortion procedures. **Outcomes Measures:** Improvement in residents' comfort levels and skills with abortion and gynecological services.

**Results:** After integrating these services, we found that in addition to being able to offer skilled care in medication and early aspiration abortions, residents made significant progress in their skills in counseling and performing a variety of gynecology procedures. A resident survey showed steady progress in resident comfort level with a range of gynecological skills from the PGY 1 to the 2 and finally the PGY 3 year. Some of the biggest improvements were seen in resident comfort with endometrial biopsy, IUD insertions, sonography, miscarriage management as well as contraceptive and pregnancy options counseling. One surprising outcome of the remodeled gynecology rotation is that the in-service exam scores of the Beth Israel residents for the gynecology have gone from being one of the lowest scoring areas to now being the highest scores for the PGY 3 year for two years in a row. This training also affected their plans for practice post graduation.

**Conclusions:** Training in early abortion care expanded residents' scope of practice so that pregnancy options counseling, pro-active contraception use, IUD insertions, medication abortions and, more rarely, early aspiration abortions are performed by many of them. The residents' confidence increased each year in all areas. A high level of comfort with skills was evident near graduation.

## **Integration of early abortion services into primary care: *Acceptability survey of female patients***

Susan Rubin, M.D., Marji Gold, M.D.

**Context:** Induced abortion is one of the most common surgical procedures in the United States. Early induced abortion is low risk, particularly in comparison to other procedures commonly performed by family physicians such as vaginal delivery at term. Integration of early abortion care within primary care practices could: allow women to obtain these services in a familiar environment with a clinician they trust, enhance the physician's ability to support couples and patients during a time that is often difficult, and improve follow-up with contraception and overall continuity of care.

**Objective:** To find out if the provision of early abortion services by their primary care physician in the primary care office acceptable and/or desirable to reproductive-aged female patients.

**Design:** Administered, confidential, mixed-methods survey.

**Setting:** Waiting area of a family medicine clinic in the Bronx, New York.

**Participants:** 148 reproductive aged women Intervention: Survey assessed participants' views on abortion in the primary care setting.

**Outcomes Measures:** Discussion of unplanned pregnancy with their primary care provider (PCP), acceptability of offering abortion in the primary care site, desirability of obtaining abortions with their PCP in the primary care site and background demographic data.

**Results:** 70% of all respondents support clinic offering medication abortion. 47% of all respondents support clinic offering suction abortion. Of the women for whom abortion would be an option (n=90), if they needed an abortion: 73% (n=65) would choose to have it done by their PCP; 22% (n=24) would choose to have it at an abortion clinic. Reason most often cited to choose PCP was comfort. Reason most often cited to choose abortion clinic was the issue of expertise. Respondent demographics were as follows: mean age 30.4 years, ever pregnant 80%, if ever pregnant, history of abortion 63%, mean time at clinic 4.8 years, mean time with provider 3.8 years, born in the U.S.A. 70%, education - high school or less 19%, completed H.S. 24%, some college 38%, completed college or more 19%, and insurance status - Medicaid 58%, private 39%, none 3%.

**Conclusions:** Offering some type of abortion in the primary care site is acceptable to a majority of female patients. Women with PCPs are interested in having abortions provided at their primary care site. Of women who have a PCP, 73% would choose to have an abortion in the primary care office. Women choosing abortion with their PCP tended to have a higher level of education and longer relationship with their PCP. Women want increased options for comprehensive reproductive health care.

## **Relationship between health literacy and childhood obesity**

Iman Sharif, MD, MPH, MS

**Context:** Health literacy, an individual's ability to read and interpret health information needed to make health decisions, has been correlated with health outcomes in adults. No studies have reported on the relationship between health literacy and child health outcomes.

**Objective:** To test the relationship between parental and child health literacy and childhood overweight.

**Design:** Cross-sectional survey.

**Setting:** Inner-city health center.

**Participants:** Pediatricians.

**Intervention:** Pediatricians referred families of children with BMI $\geq$ 85th percentile for enrollment in an obesity management program.

**Outcome Measures:** As part of the baseline assessments of these families, the following measures were collected on both parents and children: anthropometrics, Short Test of Functional Health Literacy (STOFHLA, range 0-36;  $>23$  is adequate health literacy), eating self-efficacy scale (range 1-7), exercise self-efficacy scale (range 1-5), 7-day activity diary, demographics. We used EpiInfo to calculate age/sex adjusted BMI z-scores for children. We used linear regression to test for predictors of childhood BMI z-score, adjusting for confounders.

**Results:** 59 children had complete data for all variables. Mean (SD) BMI Z-score=2.3(0.40); mean age=12(range 6-16); 49% female; 81% Medicaid recipients; 75% of parents completed HS. Mean eating efficacy for children=4.5(1); Mean exercise efficacy for children=3(1); Mean hrs wkly exercise for children=2.6(2). Mean STOFHLA for children=23(9); mean parental STOFHLA=33(8). Child STOFHLA correlated with BMI Z-score ( $r=-0.25$ ,  $p=0.05$ ) and child eating self-efficacy ( $r=0.40$ ,  $p=0.002$ ); parental STOFHLA did not. After adjusting for confounders (child: age, gender, insurance, eating self-efficacy, exercise self-efficacy, exercise activity, grade in school, reported reading level, parent: language spoken at home, education, STOFHLA, BMI) and clustering by family, child but not parent STOFHLA was independently associated with child BMI Z-score ( $r=-0.016$ ,  $p=0.003$ ). The strength of the association was as strong as that between parental BMI and child BMI z-score ( $r=0.02$ ,  $p=0.02$ ). Overall R-squared for the regression model was 48%. Child STOFHLA contributed 8% to the overall model.

**Conclusions:** Child health literacy is negatively correlated with BMI Z-scores, supporting interventions to improve nutritional health literacy to prevent overweight in children.

**An intervention to increase emergency contraception knowledge, attitudes and advance prescribing practices among internists at a teaching site**  
Mindy Sobota, MD, Rebecca Warkol, MD

**Context:** Contraception is considered a “core competency” by the American College of Physicians, the main specialty organization for internists, yet little is known about internist prescription of emergency contraception.

**Objective:** Our objective is to determine whether an educational and reminder intervention would improve EC knowledge, attitudes and advance prescribing practices among internal medicine residents and attending physicians.

**Design:** An intervention and pre-/post-intervention assessment.

**Participants:** Internal medicine residents and faculty.

**Setting:** A health center teaching site.

**Intervention:** The intervention consisted of: 1) A 45-minute Case-based Educational Session held for all participants. 2) EC Clinical Reminder Stickers placed on progress notes of all female patients <45y old seen for regular visits at the teaching site during a one-month period (Figure 1). 3) EC Posters hung throughout the teaching site (indefinitely). 4) Preprinted Prescriptions for EC made accessible (indefinitely). We surveyed participants’ EC knowledge, attitudes, and prescribing practices at baseline and 1 and 6 months after the completion of the EC Clinical Reminder Sticker portion of the intervention.

**Main Outcome Measures:** Offers to prescribe EC in the last 30 days (Yes/No) by provider self-report.

**Secondary Outcome Measures:** included EC knowledge (6 true/false questions) and attitudes (8 questions assessed on a 5-point Likert scale, dichotomized into “positive” and “not positive”). Paired categorical data were analyzed using McNemar’s test. Two-tailed tests of significance were used throughout the analysis.

**Results:** Thirty five of the 36 eligible participants completed both 1-month and 6-month follow-up (97% follow-up rate). Twenty three (66%) were female and 25 (71%) were residents. Knowledge about EC was high at baseline and significantly improved for one of the six knowledge questions at the 6-month follow-up. The percentage of participants reporting positive attitudes was high at baseline and did not significantly change at 6-month follow-up. A greater number of participants reported offering EC to patients 1 month and 6 months after the intervention compared to baseline (Table 3). There was a non-significant decrease between 1-month and 6-month follow-up ( $p = 0.13$ ).

**Conclusions:** This study suggests that a short-term EC intervention can create sustained change in advance EC prescribing practices among internal medicine residents and attendings with positive attitudes towards EC and high knowledge about EC. EC prescribing practices may change in the absence of significant change in knowledge about EC or attitudes towards EC.

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