Integrating Care: From Evidence to Operations

Second Annual Statewide Forum on Integration

Sampling of Relevant Literature

Track 1: Nuts and Bolts of Integrated Care

Comparative Effectiveness of Collaborative Chronic Care Models for Mental Health Conditions Across Primary, Specialty, and Behavioral Health Care Settings: Systematic Review and Meta-Analysis

Woltmann, E., Grogan-Kaylor, A., Perron, B.,Georges, H., Kilbourne, A.M., & Bauer, M.S. (2012). Comparative effectiveness of collaborative chronic care models for mental health conditions across primary, specialty, and behavioral health care settings: systematic review and meta-analysis. *American Journal of Psychiatry*, (169)8, 790-804. doi: 10.1176/appi.ajp.2012.11111616)

http://www.ncbi.nlm.nih.gov/pubmed/22772364

This paper provides a systematic review and analysis that assesses the comparative effectiveness of Collaborative chronic care models (CCMs) for mental health conditions. Critical issues are identified with recommended strategies regarding research and policy/organizational implications.

Behavioral Health Referrals and Treatment Initiation Rates in integrated Primary Care: A Collaborative Care Research Network Study

Andrea Auxier, PhD, Christine Runyan, PhD, Daniel Mullin, PsyD, Tai Mendenhall, PhD, Jessica Young, LICSW, & Rodger Kessler, PhD (2012). Behavioral health referrals and treatment initiation rates in integrated primary care: a Collaborative Care Research Network study. *Transl Behav Med.* Sep; 2(3): 337–344. Published online 2012 Jun 6. doi: 10.1007/s13142-012-0141-8)

This study presents the results of a multisite card study organized by The Collaborative Care Research Network, a sub-network of the American Academy of Family Physicians' National Research Network devoted to conducting practice-based research focused on the provision of BH and health behavior services within primary care practices.

Value-Based Financially Sustainable Behavioral Health Components in Patient-Centered Medical Homes

Kathol RG, Degruy F, & Rollman BL. (2014). Value-based financially sustainable behavioral health components in patient-centered medical homes Ann Fam Med. Mar-Apr;12(2):172-5. doi: 10.1370/afm.1619)

This article discusses the components considered necessary to provide sustainable, value-added integrated behavioral health care in the PCMH. These components are to: (1) combine medical and behavioral benefits into one payment pool; (2) target complex patients for priority behavioral health care; (3) use proactive onsite behavioral "teams;" (4) match behavioral professional expertise to the need for treatment escalation inherent in stepped care; (5) define, measure, and systematically pursue desired outcomes; (6) apply evidence-based behavioral treatments; and (7) use cross-disciplinary care managers in assisting the most complicated and vulnerable. By adopting these seven components, PCHMs will augment their ability to achieve improved health in their patients at lower cost in a setting that enhances ease of access to commonly needed services.

Planning Patient-Centered Health Homes for Medicaid Psychiatric Patients at Greatest Risk for Intensive Service Use

West JC, Rae DS, Mojtabai R, Duffy FF, Kuramoto J, Moscicki E, & Narrow WE. (2015). Planning patient-centered health homes for medicaid psychiatric patients at greatest risk for intensive service use. *Community Ment Health J*. Feb 10. [Epub ahead of print])

This study identified characteristics of Medicaid psychiatric patients at risk of hospitalizations and emergency department (ED) visits to identify their service delivery needs.

Addressing the Workforce Crisis in Integrated Primary Care

Blount FA, & Miller BF. (2009). Addressing the workforce crisis in integrated primary care. *J Clin Psychol Med Settings*. Mar;16(1):113-9. doi: 10.1007/s10880-008-9142-7. Epub 2009 Jan 16)

This article discusses new initiatives that have emerged, which attempt to provide training for the preexisting mental health workforce to enable their successful integration into primary care settings.

Proximity of Providers: Co-locating Behavioral Health and Primary Care and the Prospects for an Integrated Workforce

Miller, Benjamin F.; Petterson, Stephen; Burke, Bridget Teevan; Phillips Jr., Robert L.; Green, & Larry A. (2014). Proximity of providers: co-locating behavioral health and primary care and the prospects for an integrated workforce. *American Psychologist*, Vol 69(4), 443-451. http://dx.doi.org/10.1037/a0036093)

Integrated behavioral health and primary care is emerging as a superior means by which to address the needs of the whole person, but we know neither the extent nor the distribution of integration. Using the Centers for Medicare and Medicaid Services' National Plan and Provider Enumeration System (NPPES) downloadable file, this study reports where colocation exists for (a) primary care providers and any behavioral health provider and (b) primary care providers and psychologists specifically. The NPPES database offers new insights into where opportunities are limited for integration due to workforce shortages or non-proximity of providers and where possibilities exist for colocation, a prerequisite for integration.

The Primary Care Behaviorist: A New Approach to Medical/Behavioral Integration

Mitchell D. Feldman, MD, MPhil & Saul Feldman, DPA. (2013). The primary care behaviorist: a new approach to medical/behavioral integration. *J Gen Intern Med*. 28(3): 331–332.

Published online 2013 Jan 19. doi: 10.1007/s11606-012-2330-z)

Three articles examine integration and/or co-location of behavioral health services in primary care.

- ✓ **Chang ET, Rose DE, Yano EM, Wells KB, Metzger ME, Post EP, et al.** Determinants of Readiness for Primary Care-Mental Health Integration (PC-MHI) in the VA Health Care System. J Gen Intern Med. 2013;28(3). doi:10.1007/s11606-012-2217-z. [PMC free article] [PubMed]
- ✓ **Szymanski BR, Bohnert KIM, Zivin K, McCarthy JF.** Integrated Care: Treatment Initiation Following Positive Depression Screens. J Gen Intern Med. 2013;28(3). doi:10.1007/211606-012-2218-y. [PMC free article] [PubMed]
- ✓ **Linzer M, Popkin MK, Coffey E.** The Hennepin County Medical Center Program in Medical Psychiatry: Addressing the Shortened Lifespan of Patients with Mental Illness. J Gen Intern Med. 2013; doi:10.1007/s11606-012-2325-9. [PMC free article] [PubMed]

Track 2: Addressing Substance Use Disorders

Intersection of Chronic Pain Treatment and Opioid Analgesic Misuse: Causes, Treatments, and Policy Strategies

Wachholtz, A., Gonzalez, G., Boyer, E., Naqvi, Z. N., Rosenbaum, C., & Ziedonis, D. (2011). Intersection of chronic pain treatment and opioid analgesic misuse: causes, treatments, and policy strategies. *Substance Abuse and Rehabilitation*, *2*, 145–162. doi:10.2147/SAR.S12944)
http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3846312/

This paper covers the epidemiology of chronic pain and aberrant opioid behaviors, psychosocial influences on pain, pharmacological/psychological/social treatments, and educational and regulatory efforts on the federal and state levels that address reducing the diversion of prescription opioids.

Collaborative Care of Opioid-Addicted Patients in Primary Care Using Buprenorphine: Five-Year Experience

Alford DP[1], LaBelle CT, Kretsch N, Bergeron A, Winter M, Botticelli M, & Samet JH. (2011). Collaborative care of opioid-addicted patients in primary care using buprenorphine: five-year experience. *Arch Intern Med.* Mar 14;171(5):425-31. doi: 10.1001/archinternmed.2010.541)

This article describes a cohort of patients treated for opioid addiction using collaborative care between nurse care managers and generalist physicians in an urban academic primary care practice during a five-year period. We examine patient characteristics, 12-month treatment success (i.e., retention or taper after six months), and predictors of successful outcomes.

Psychophysiology of Pain and Opioid Use: Implications for Managing Pain in Patients with An Opioid Use Disorder

Amy Wachholtz, Simmie Foster, & Martin Cheatle. (2014). Psychophysiology of pain and opioid use: Implications for managing pain in patients with an opioid use disorder. *Drug & Alcohol Dependence*, 146C:1-6. doi: 10.1016/j.drugalcdep.2014.10.023. Epub 2014 Nov 6)

Managing patients with comorbid pain and opioid use disorder is complex, and the mechanisms of pain and addiction are not well understood. Authors reviewed key empirical and theoretical papers examining the psychophysiology of comorbid pain and opioid misuse disorders. Patients with a history of opioid misuse may have greater levels of hyperalgesia due to alterations in psychophysiological pathways. Developing interdisciplinary treatments will require a thorough knowledge of the psychophysiology of pain and addiction.

Beliefs and Attitudes About Opioid Prescribing and Chronic Pain Management: Survey of Primary Care Providers

Jamison RN, Sheehan KA, Scanlan E, Matthews M, & Ross EL. (2014). Beliefs and attitudes about opioid prescribing and chronic pain management: survey of primary care providers. *J Opioid Manag.* Nov-Dec; 10(6):375-82. doi: 10.5055/jom.2014.0234)

This article reviews the current theory of the effect of pain on patients with pain and concomitant addiction, the psychophysiology of pain, opioid use and addiction, and future research in this area. The authors gathered key empirical and theoretical papers examining the psychophysiology of comorbid pain and opioid misuse disorders.

Maintenance Medication for Opiate Addiction: The Foundation of Recovery

Bart, G. (2012). Maintenance medication for opiate addiction: the foundation of recovery. *Journal of Addictive Diseases*, 31(3), 207–225. doi:10.1080/10550887.2012.694598)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3411273/
A review of three FDA-approved medication for the long-term treatment of opioid dependence, their basic mechanisms of action, and treatment outcomes are presented. Recommendations for future assessments are noted.

Buprenorphine-Mediated Transition from Opioid Agonist to Antagonist Treatment: State of the Art and New Perspectives

Mannelli, P., Peindl, K. S., Lee, T., Bhatia, K. S., & Wu, L.-T. (2012). Buprenorphine-mediated transition from opioid agonist to antagonist treatment: state of the art and new perspectives. *Current Drug Abuse Reviews*, 5(1), 52–63)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3496559/
This paper summarizes PubMed-searched clinical investigations and conference papers on the transition from methadone maintenance to buprenorphine and from buprenorphine to naltrexone, discussing challenges and advances. Concerns regarding availability of treatment options and future research questions are identified.

Medication-Assisted Treatment With Methadone: Assessing the Evidence

Catherine Anne Fullerton, M.D., M.P.H.; Meelee Kim, M.A.; Cindy Parks Thomas, Ph.D.; D. Russell Lyman, Ph.D.; Leslie B. Montejano, M.A., C.C.R.P.; Richard H. Dougherty, Ph.D.; Allen S. Daniels, Ed.D.; Sushmita Shoma Ghose, Ph.D.; & Miriam E. Delphin-Rittmon, Ph.D. (2014). medication-assisted treatment with methadone: assessing the evidence, 65(2), 146-157)

Detoxification followed by abstinence has shown little success in reducing illicit opioid use. Methadone maintenance treatment (MMT) helps individuals with an opioid use disorder abstain from or decrease use of illegal or nonmedical opiates. This review examined evidence for MMT's effectiveness.

Integrating Substance Abuse Care with Community Diabetes Care: Implications for Research and Clinical Practice

Ghitza, U. E., Wu, L.T., & Tai, B. (2013). Integrating substance abuse care with community diabetes care: implications for research and clinical practice. *Substance Abuse and Rehabilitation*, 4, 3–10. doi:10.2147/SAR.S39982)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3558925/
This article identifies and discusses the public health problem of coexisting substance use and diabetes. Highlighted is the co-location or team-based integrated care for improving outcomes for this cohort of individuals with substance use disorders. The article offers recommendations for research areas that are also consistent with ongoing federal initiatives on integrated care and patient-centered medical homes.

The Implementation of an Integrated Information System for Substance Use Screening in General Medical Settings

Shanahan CW, Sorensen-Alawad A, Carney BL, Persand I, Cruz A, Botticelli M, Pressman K, Adams WG, Brolin M, & Alford DP.(2014). The implementation of an integrated information system for substance use screening in general medical settings**.** *Appl Clin Inform*. 5(4):878-94. doi: 10.4338/ACI-2014-03-RA-0025. eCollection 2014.)

The Massachusetts Screening, Brief Intervention and Referral to Treatment (MASBIRT) Program, a substance use disorder screening program in general medical settings, created a web-based, point-of-care (POC), application--the MASBIRT Portal (the "Portal") to meet program goals. Five-year program process outcomes recorded by an independent evaluator and an anonymous survey of Health Educator's (HEs) adoption, perceptions and Portal use with a modified version of

the Technology Readiness Index are described. [8] Specific management team members, selected based on their roles in program leadership, development, and implementation of the Portal and supervision of HEs, participated in semi-structured, qualitative interviews.

Track 3: Optimizing Integrated Care Management

Community Health Workers: Part Of The Solution

Jacqueline R. Scott, Lisa R. Holderby and Durrell J. Fox, E. Lee Rosenthal, J. Nell Brownstein, Carl H. Rush, Gail R. Hirsch, & Anne M. Willaert. (2010). Community health workers: part of the solution. *Health Affairs*, 29(7), 1338-1342 doi: 10.1377/hlthaff.2010.0081)

http://content.healthaffairs.org/content/29/7/1338.long

Community health workers are recognized in the Patient Protection and Affordable Care Act as important members of the health care workforce. The evidence shows that they can help improve health care access and outcomes; strengthen health care teams; and enhance quality of life for people in poor, underserved, and diverse communities. We trace how two states, Massachusetts and Minnesota, initiated comprehensive policies to foster far more utilization of community health workers and, in the case of Minnesota, to make their services reimbursable under Medicaid. The recommendations are that other states follow the lead of these states, further developing the workforce of community health workers, devising appropriate regulations and credentialing, and allowing the services of these workers to be reimbursed.

Community Health Workers and Integrated Primary Health Care Teams in the 21st Century

Herman AA. J. (2011). Community health workers and integrated primary health care teams in the 21st century. *Ambul Care Manage*. 34(4):354-61. doi: 10.1097/JAC.0b013e31822cbcd0.)

http://www.ncbi.nlm.nih.gov/pubmed/21914991

Community health workers are an integral part of many health care systems. Their roles vary and include both the socially oriented tasks of natural helpers and specific constrained tasks of health extenders. As natural helpers, community health workers play an important role in connecting public and primary care to the communities that they serve. As primary health care becomes more patient-centered and community-oriented, the natural helper roles that include trust, rapport, understanding, and the ability to communicate with the community take on an increased significance.

Integrating Community Health Workers within Patient Protection and Affordable Care Act Implementation.

Islam N1, Nadkarni SK, Zahn D, Skillman M, Kwon SC, & Trinh-Shevrin C. (2015). *J Public Health Manag Pract*. 21(1):42-50. doi: 10.1097/PHH.0000000000000084)

This article discusses different strategies for integrating CHW models within PPACA implementation through facilitated enrollment strategies, patient-centered medical homes, coordination and expansion of health information technology (HIT) efforts, and also discusses payment options for such integration.

Transition Care: Future Directions in Education, Health Policy, and Outcomes Research

Sharma, N., O'Hare, K., Antonelli, R. C., & Sawicki, G. S. (2014). Transition care: future directions in education, health policy, and outcomes research. *Academic Pediatrics*, 14(2), 120–127. doi:10.1016/j.acap.2013.11.007)

(http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4098714/

Transitioning from pediatric to adult-centered care for youth with special health care needs is addressed in this paper. Implications in current federal health policy in terms of improved care

coverage are described. Research recommendations are articulated for the field of transition.

Patient- and Family-Centered Care Coordination: a Framework for Integrating Care for Children and Youth Across Multiple Systems

Turchi RM, Antonelli RC, Norwood KW Jr, Adams RC, Brei TJ, Burke RT, Davis BE, Friedman SL, Houtrow AJ, Kuo DZ, Levy SE, Wiley SE, Kalichman MA, Murphy NA, Cooley WC, Jeung J, Johnson B, Klitzner TS, Lail JL, Lindeke LL, Mullins A, Partridge L, Schwab W, Stille C, Waldron D, Wells N, & Sia C. (2014). Patient- and family-centered care coordination: a framework for integrating care for children and youth across multiple systems. *Pediatrics*, 133(5), 1451-60)

At the foundation of an efficient and effective system of care delivery is the patient-/family-centered medical home. From its inception, the medical home has had care coordination as a core element. In general, optimal outcomes for children and youth, especially those with special health care needs, require interfacing among multiple care systems and individuals, including the following: medical, social, and behavioral professionals; the educational system; payers; medical equipment providers; home care agencies; advocacy groups; needed supportive therapies/services; and families. Coordination of care across settings permits an integration of services that is centered on the comprehensive needs of the patient and family, leading to decreased health care costs, reduction in fragmented care, and improvement in the patient/family experience of care.

Care Coordination for CSHCN: Associations with Family-Provider Relations and Family/Child Outcomes

Turchi RM, Berhane Z, Bethell C, Pomponio A, Antonelli R, Minkovitz CS. (2009) Care coordination for CSHCN: associations with family-provider relations and family/child outcomes. *Pediatrics*.Suppl 4:S428-34, doi: 10.1542/peds.2009-1255O)

This paper examined the association between receiving adequate care coordination (CC) with family-provider relations and family/child outcomes. Parental report of adequate CC was associated with favorable family-provider relations and family/child outcomes. Additional efforts are needed to discern which aspects of CC are most beneficial and for which subgroups of children with special health care needs.

Track 4: Integration in the Pediatric Setting

Collaborative Care for Adolescents With Depression in Primary Care: A Randomized Clinical Trial

Richardson, L.P., Ludman, E., McCauley, E., et al. (2014). Collaborative care for adolescents with depression in primary care: a randomized clinical trial. *JAMA,* 312(8), 809-816. doi:10.1001/jama.2014.9259)

http://jama.jamanetwork.com/article.aspx?articleid=1899203

The study presented in this paper determined whether a collaborative care intervention for adolescents with depression improves depressive outcomes compared with usual care. Results demonstrated that collaborative care resulted in greater improvement, suggesting that mental health services with depression can be integrated into primary care.

Depression Among Youth in Primary Care Models for Delivering Mental Health Services.

Asarnow JR1, Jaycox LH, & Anderson M. (2002*).* Depression among youth in primary care models for delivering mental health services. *Child Adolesc Psychiatr Clin N Am*.11(3), 477-97, viii)

This article emphasizes the promise of efforts to improve care for depression within the primary care setting. Recommendations include: 1.) Traditional primary care practices offer an opportunity to identify and reach youth who need care for depression. The increased emphasis

on developing school-based and school-linked health centers may also prove helpful for increasing the number of youth who are seen in primary care because their centers bring the services to a setting that is easily accessible to most youth.; 2.) Strategies for improving detection of depression in primary care settings must be developed and tested. Use of nonphysicians such as practice assistants, nursing staff, or associated mental health workers will be needed to support physician efforts.; 3.) Low rates of detection and evidence-based treatment for depression in primary care settings underscore the urgent need to understanding the barriers to care within primary care settings and to develop interventions that reduce potential barriers and improve access to high-quality care.; 4.) Detection efforts within primary care settings are likely to yield a somewhat different population than the population of youth identified in specialty mental health clinics or schools.; 5.) Motivation for treatment is likely to be lower for youth identified through primary care than for those seen in specialty care, particularly when youth have not identified themselves as requiring treatment. Strategies need to be developed and tested to enhance motivation and to target treatment efforts at those youth who are most likely to benefit from services.; 6.) The confidential nature of the patient-provider relationship, particularly in primary care settings where youth have sought care for sensitive issues (e.g., pregnancy, birth control) underscores the need to develop effective strategies for working with families and mobilizing parents to support treatment and recovery.; and 7.) Research is needed to identify service-delivery strategies that are practical in real-world settings and are associated with improved quality of care and outcomes in children and adolescents treated for depression in primary care settings.

Contact With Mental Health and Primary Care Providers Before Suicide: A Review of the Evidence
Luoma JB, Martin CE, & Pearson JL. (2002). Contact with mental health and primacy care providers before suicide: a review of the evidence. *American Journal of Psychiatry*, Jun; 159(6), 909-16)
http://www.ncbi.nlm.nih.gov/pubmed/12042175 ;
This study examines rates of contact with primary care and mental health care individuals before they died by suicide. Recommendations are made regarding suicide-prevention efforts.

Evaluating the *SOS* Suicide Prevention Program: a Replication and Extension
Aseltine, R.H., James, A., Schilling, E.A., & Glanovsky, J. (2007), Evaluating the SOS suicide prevention program: a replication and extension. *BMC Public Health*, (7)161,doi:10.1186/1471-2458-7-161)
http://www.biomedcentral.com/content/pdf/1471-2458-7-161.pdf
With suicide the leading cause of death for youth in the United States and school-based programs being a principle vehicle for youth suicide prevention efforts, the authors examined the effectiveness of Signs of Suicide (SOS) prevention programs in reducing suicidality. This study confirmed initial analysis, this time with a larger and more racially and socio-economically diverse sample.

Substance Use Screening, Brief Intervention, and Referral to Treatment for Pediatricians
American Academy of Pediatrics. (2011). Substance use screening, brief intervention, and referral to treatment for pediatricians. *Pediatrics,* (128)5, e1330-e1340; doi: 10.1542/peds.2011-1754)
http://pediatrics.aappublications.org/content/128/5/e1330.full.pdf+html
American Academy of Pediatrics published this article highlighting the importance of including appropriate guidance regarding substance use during routine pediatric clinical care. Mentioned is use of the CRAFFT screening toolkit, incorporated into the SBIRT by the Massachusetts Bureau of Substance Abuse Services. The publication ends with recommendations for pediatricians.

SBIRT for Adolescent Drug and Alcohol Use: Current Status and Future Directions
Mitchell, S. G., Gryczynski, J., O'Grady, K. E., & Schwartz, R. P. (2013). SBIRT for adolescent drug and alcohol use: current status and future directions. *Journal of Substance Abuse Treatment*, 44(5), 463–472. doi:10.1016/j.jsat.2012.11.005)

http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3602212/

The application of the Screening, Brief Intervention, and Referral to Treatment (SBIRT) model for adolescents is explained. A review of pertinent research is detailed along with commentary regarding research and treatment issues and challenges for the identified population.

Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide

http://www.drugabuse.gov/sites/default/files/podata_1_17_14.pdf

This is a research-based guide from the National Institute on Drug Abuse/NIH on the principles of adolescent substance use disorder treatment.

Adolescent Substance Use
Sharon Levy, MD, MPH. (2014).*Pediatric Annals*. 43(10), 406-407, DOI: 10.3928/00904481-20140924-06)