

Sustainable Lifelines: Supporting Integrated Behavioral Health Services for Children and Adolescents in the Accountable Care Era

AMY M. KILBOURNE, PHD, MPH; JANE SPINNER, MSW, MBA; ANNE KRAMER, LMSW; PARESH D. PATEL, MD, PHD;
KATHERINE L. ROSENBLUM, PHD; RICHARD DOPP, MD; LIWEI L. HUA, MD, PHD; MARIA MUZIK, MD, MS;
AND SHEILA MARCUS, MD

ABSTRACT

OBJECTIVES: Debundled payment mechanisms, such as those proposed to be used in the accountable care organization (ACO) structure, have the potential to promote integrated behavioral health and general medical care, notably by supporting services such as collaborative care that are not routinely available or covered under traditional fee-for-service. However, to date, bundled payment mechanisms have only been applied to adult populations. We present current efforts to develop a reimbursement model to provide behavioral healthcare for children and adolescents who are primarily seen in primary care settings with limited access to psychiatrists. The Michigan Child Collaborative Care (MC3) program has components similar to many other state-based initiatives that are designed to increase access to behavioral healthcare, notably through telepsychiatry, but adds components of the evidence-based Collaborative Care Model (CCM) to promote sustainability through enhancing the capacity of primary care physicians to provide behavioral health treatment on-site.

Despite increased demand, sustainability of MC3 is challenged due to the lack of reimbursement for CCM-related services, including phone-based consultation with primary care providers, outcomes assessment, and care coordination with families. We describe a potential strategy to financially sustain MC3 that builds upon existing fee-for-service reimbursement frameworks as well as emerging bundled payment mechanisms for integrated care, to ultimately improve access to behavioral health services for vulnerable children and youth in Michigan and across the United States.

One in 10 children and adolescents in the United States has a behavioral health condition (eg, anxiety, depressive disorder, attention-deficit disorder) but fewer than half receive effective treatment,¹⁻⁴ resulting in increased chances of morbidity and lifelong social dysfunction.^{5,6} Most children with behavioral health problems present to primary care first^{7,8} due both to perceived stigma

associated with seeking help for mental illness and to a shortage of behavioral health professionals with pediatric or adolescent specialties. Increasingly, pediatric primary care physicians and providers (PCPs) are interested in improving behavioral healthcare for their patients,^{9,10} and in most cases mild and moderate forms of behavioral health problems can be diagnosed, treated, and monitored within primary care.¹¹⁻¹³

However, PCPs in pediatric practices report gaps in training and knowledge in behavioral health, and they are less comfortable managing certain conditions such as depression.¹⁴ PCPs also may lack the resources and training to detect and address these conditions,^{15,16} and they often are unable to refer patients to behavioral health specialists in the community, especially where there is variation in insurance policy coverage¹⁷⁻²² and in access to local behavioral health providers. Even when trained behavioral health specialty care providers are involved in pediatric patients' care, administrative barriers to sharing health information data hinder the ability of the PCP to monitor patients' progress and treatment effectiveness. Hence, children with very complex behavioral health issues, especially in rural and underserved areas, are not receiving the treatment that they need, leaving them at risk for a lifetime of poor outcomes including incarceration, declining health, aggression and violence, suicide, or homicide.

One promising approach to improve access to behavioral health services in underserved communities is telepsychiatry. Telepsychiatry has been found to be effective at identifying psychopathology in youth through increased rapport between doctor and patient similar to that established in traditional face-to-face evaluations.²³ Relatively inexpensive to deliver, telepsychiatry operates by connecting patients seen in primary care settings with a behavioral health specialist via video interfacing. Currently, a

major national initiative—the National Network of Child Psychiatry Access Programs (www.nncpap.org)—is promoting the use of telepsychiatry for children and adolescents served in community-based primary care practices with limited access to behavioral health specialists. More than 30 states have initiated telepsychiatry through this initiative as of 2014, and it has been associated with improved access to care in at least 2 states where it was rigorously evaluated.²⁴⁻²⁶

Nonetheless, evidence suggests that telepsychiatry requires coordination of services beyond the video encounter in order to improve behavioral health outcomes.²⁶⁻²⁸ Moreover, additional effort is needed to set up and maintain the video interface between pediatric practices and behavioral health providers, provide additional treatment guidance to PCPs, and, for children in particular, provide further education of treatment options for parents and other family members.

Collaborative Care Models (CCMs) are evidence-based and provide care management, clinical decision support, and clinical information systems in a proactive manner that enhance physician encounters and patient activation. They have been widely used to integrate behavioral health services within primary care settings²⁷ and have been shown to promote the use of telepsychiatry and subsequently improve behavioral health outcomes in adults.²⁸ More recently, CCMs have been shown to improve child behavioral health outcomes in primary care settings.²⁹ However, these additional CCM components, while vital for enhancing access to behavioral healthcare, are currently not reimbursable within the fee-for-service model used by most healthcare payers, or are inadequately reimbursed by Medicaid. While strategies have been proposed to reimburse CCM components to provide integrated behavioral health services in primary care for adult populations,³⁰ to date no such reimbursement model exists for children with behavioral health problems. Moreover, emerging payment models under Accountable Care Organizations (ACOs), such as bundled payments for care management, have not been fully developed for providing integrated behavioral healthcare for adults or children.³¹

In the wake of healthcare reform and proliferation of shared savings programs that have the potential to provide bundled payment for CCM-related services,³⁰ there is an urgent need to develop similar reimbursement models to support community-based providers who deliver needed behavioral health services for children. We describe the Michigan version of a telepsychiatry collaborative care program (Michigan Child Collaborative Care; MC3), as well as barriers to supporting MC3 and similar programs. Based on emerging payment models for adult populations, we propose a reimbursement mechanism for MC3 that is consistent with the principles of accountable care, which could potentially be applied to improve access and outcomes for children with behavioral health problems elsewhere.

MC3 is Michigan's version of the Child Psychiatry Access Program, enhanced to include components of the CCM^{27,28} and to provide access to remote behavioral health specialty care for children, youth, and perinatal women seen in Michigan community-based primary care practices, particularly those from underserved urban and rural geographic settings. MC3 was initiated by a coalition of clinician investigators from the University of Michigan, community-based providers from regional community mental health (CMH) centers, as well as pediatricians, family medicine physicians, and other PCPs from private practices and federally qualified health centers from rural and urban underserved areas (eg, Detroit, Wayne County). The president of the Michigan Chapter of the American Academy of Pediatrics was also involved and served a statewide leadership and advocacy function in this project.

MC3 relies on technology available through the University of Michigan Comprehensive Depression Center, which permits telepsychiatric consultations from CMH centers and clinical care offices to University of Michigan child psychiatrists based in Ann Arbor. As of fall 2014, MC3 has been implemented in primary care clinics in 17 counties throughout Michigan which serve children and high-risk childbearing women with psychiatric symptoms; all are from rural or underserved urban counties who do not have access to psychiatrists. Expansion to an additional 16 counties is planned in the upcoming year.

MC3 provides coordinated services including telepsychiatry for patients across Michigan via a team of child and adolescent psychiatric providers (CAPs). The MC3 CAP team includes a child psychiatrist, a perinatal psychiatrist, and a developmental psychologist. Collaborative Care model components added during the start-up and maintenance of the telepsychiatry program including PCP consultation provided by the CAP team (decision support), care coordination (care management), and outcomes assessment (clinical information systems) (**Table 1**).

PCPs access the MC3 program by ordering a comprehensive evaluation through the CAP team, who then schedule a remote session (typically 50 to 90 minutes, depending on need) to see the patient and family members by video. The CAP team also provides treatment consultation by phone (not video) to PCPs so that they are able to make diagnosis and treatment decisions, particularly involving medications and referral decisions to CMH centers if necessary. Each telephone consult with a PCP can take about 15 minutes, which is more time-efficient than a traditional 90-minute psychiatric interview (with patient present). Hence, in most cases, the PCP determines the treatment plan and is the principal prescriber of psychotropic medications, with back up consultation from the psychiatrist.

As with other Collaborative Care Models,^{27,28} MC3 includes care management support primarily to help coordinate telepsychiatry encounters and additional services between patients,

Table 1. Michigan Child Collaborative Care (MC3) Components

Collaborative Care Model (CCM) Component	Description of Services	Key Measures of Success	Potential Reimbursement Mechanisms
Psychiatric specialist care evaluation (CCM specialist care)	Clinical evaluations of rural children and young adults with complex behavioral concerns via telepsychiatry (simultaneous video and audio) delivered by child and adolescent psychiatrists and psychologists (MC3 CAP team). Patients participating in telepsychiatric consultations can be located at the PCP office or at home, depending on clinical circumstances. More complex patients are referred to in-person behavioral health specialty care (eg, to community mental health centers).	Reduced overuse of psychotropic agents in children/ evidence-based pharmacotherapy use.	Available FFS codes: H0031, 90791, 99201-99205, and 90792.
Primary care provider (PCP) consultation (CCM decision support component)	On demand phone consultation by child/adolescent psychiatrists to PCPs, nurses, and mid-level providers: Consults permit diagnostic clarification and guide medication and behavioral treatment in primary care settings over the course of treatment. PCPs can communicate with psychiatrists via phone or mobile device, laptop, e-mail, or individual or group-based video (eg, virtual chart rounds), giving them the flexibility of choosing the most timely and appropriate vehicle of communication for consultations without patient present.	Increased physician knowledge and confidence in treating behavioral health problems.	Available FFS codes: None. BP: per member per month or set fee for each communication encounter.
Care coordination via liaison coordinator (CCM care management)	Master's-level behavioral health clinician coordinates service encounters among patients, PCPs, the hub MC3 behavioral health team, and behavioral health providers at community mental health centers. Liaison coordinator also provides additional information on treatments to family members and conducts outcomes assessments and treatment referral.	Reduced preventable emergency department (ED) visits and hospitalizations.	Proposed BP: per member per month. Proposed FFS (family member-PCP encounters only): Family Training (S5111); or Parent Education (T1027).
Outcomes assessment (CCM measurement-based care/clinical information systems)	Obtaining necessary metrics on child/adolescent symptoms and functioning, explaining the process to families and supporting them during their consultation; and serving a referral and treatment engagement function post consultation. A unique data capture and Michigan Depression Outreach and Collaborative Care management system developed at the University of Michigan Department of Psychiatry was tailored for this program to allow the ability to track and summarize outcomes data on patients.	Reduced preventable ED visits and hospitalizations.	Proposed FFS: Home-Based Services (H0036); Wraparound (H2021).

BP indicates bundled payment; FFS, fee-for-service.

PCPs, the hub MC3 behavioral health team, and behavioral health providers at CMH centers (Table 1). In MC3, care managers are referred to as liaison coordinators; they are master's-level behavioral health specialists with expertise in behavioral health symptoms and treatment options, and work out of CMH centers within the same county as the primary care practice. The liaison coordinators also play a vital role before and during the telepsychiatric consultation by obtaining necessary outcomes assessments; explaining the process to families and supporting them during their consultation; and serving as a referral and treatment engagement liaison after the initial telepsychiatry encounter (Table 1).

In collaboration with the State of Michigan Department of Community Health, the MC3 team operationalized intermediate and long-term measures of success (Table 1). These metrics corresponded to major healthcare reform initiatives, including the

Medicare shared savings program,³⁰ as well as to evidence suggesting that psychotropic medications are overused in children.³¹ Key outcomes included appropriate prescribing of psychotropic agents in children (including use of generic vs brand name medications which are more costly)³² and reduced preventable emergency department (ED) visits or hospitalizations. The expectation is that MC3 will lead to greater cost efficiency through use of generic as opposed to brand name medications, as well as reduced preventable hospitalizations of ED visits, and limiting medication use when psychotherapeutic or behavior-based treatments are more appropriate. In addition, it is expected that greater access to outpatient behavioral healthcare will result in reduced ED visits or hospitalizations³⁰; it is also expected to reduce other costly services such as incarceration and involvement of child protective services. MC3 is also tracking, over time, the knowledge and confidence PCPs have in treating behavioral

health problems among children as the program continues.

Challenges in Billing for MC3

While telepsychiatry consultations—with the patient present—are currently billable services, the cost of providing the service is far greater than the reimbursement rate, due to the time required to do a comprehensive evaluation, gather metrics, and coordinate the technology. A major barrier to the sustainability of MC3 is the lack of a reimbursement model for these activities, which are most efficiently provided through care management. In Michigan and other states, behavioral health services, even under the auspices of care management, are not billable when provided within primary care settings.³⁰ Moreover, Medicaid may not accept a medical and psychiatric billing code on the same day from a PCP and behavioral health specialist, thus limiting the ability to coordinate these services.³⁰ Care management services, even when provided by a behavioral health specialist in CMH settings, are currently not reimbursable, in part because they do not reflect specific psychotherapies provided under current reimbursement models. This reflects a similar predicament among other CCM programs in adult populations.³⁰ In addition, phone consultations between the PCP and remote psychiatrist (without patient present) are not currently billable, even though such consultations foster much more efficiency in subsequent consultations between patient and remote psychiatrist.²⁶

MC3 Reimbursement Gaps

MC3 has been collaborating with the Michigan Department of CMH throughout the state to move toward a sustainable reimbursement model for MC3. Currently, the MC3 CAP team contracts with CMH programs within the same county as the primary care practice to provide telepsychiatry evaluations. The standard charge for each evaluation is \$275, which is based upon the CAP team's time required to deliver the service. This fee is paid to the CAP team by the CMH program, which in turn files to get reimbursed for part of the cost through Medicaid. However, this reimbursement amount is insufficient to sustain the program because the CMH programs rely on the liaison coordinators to provide services that are crucial for maintaining the evidence-based Collaborative Care Model components of MC3. Notably, liaison coordinators provide care management services, such as the coordination of telepsychiatry visits; facilitation of communication among their staff, CAP team, PCP, and other community agencies or practitioners when referral is needed; and support to patients and family members in their ongoing care.

Initial evaluation of MC3 costs and work flow by the CAP team and investigators revealed 3 major gaps in time and personnel effort where reimbursement was needed. First, care management services provided through the MC3 liaison coordinators will need to be billable, either through reimbursement codes or bundled payments, so the additional time they spend to implement the program will be covered. Second, it will be necessary

to establish appropriate reimbursement codes to enable PCPs to bill for phone-only CAP team consultations (or a bundled fee will need to be developed for this service). While brief, these consultations are more efficient in that they can allow PCPs to manage more patients without referral. Another option to provide decision support for PCPs is through virtual chart rounds, which could be an alternative method for PCPs to review multiple patients with the consulting psychiatrist in 1 session. Finally, in many cases following the telepsychiatric consultation, patients may need brief psychotherapies that are not available locally, but could be provided via telepsychiatry or phone. Billing codes do not exist for this service if delivered remotely or in primary care settings.³⁰

MC3 Sustainability Options

Reimbursement codes. Currently, reimbursement mechanisms that support MC3 are limited (**Table 1**). The only service that is currently billable under MC3 in the state of Michigan is the telepsychiatry behavioral health assessment. The liaison coordinator's (ie, care manager's) role cannot be reimbursed in Michigan because of the mode of delivery (phone) as well as the restriction on billing for care provided outside of CMH programs.³⁰ Other reimbursement codes that could be used to support some of the MC3 services include Family Training (S5111) or Parent Education (T1027), but these codes only apply to situations where family members can contact the PCP, either on a scheduled or on an emergency basis to receive guidance on the child's treatment. In addition, codes for more comprehensive services are available (eg, wraparound), but are limited to more seriously ill patients (**Table 1**).

Bundled payments. Several initiatives are underway to support CCM-based core components, primarily for chronic medical illness and not behavioral healthcare.³³ Currently, under the Medicare Shared Savings Program, it is proposed that ACOs link reimbursement rates at the practice level to quality improvement and reductions in healthcare costs for an assigned population of Medicare patients.³³ Similarly, the Massachusetts version of telepsychiatry provides to primary care a per child per month funding that covers key CCM components, including care management.³⁴ However, to date, there are no similar models proposed in other states.

One of the most comprehensive mechanisms involving bundled payments for mental healthcare that could be applied to children's behavioral health is the Depression Improvement across Minnesota, Offering a New Direction (DIAMOND) initiative. The goal of DIAMOND was to develop a bundled payment model to cover depression management in Minnesota primary care practices.³⁵ Through a collaboration of commercial health plans, the state, and medical providers, DIAMOND worked through an independent organization (Institute for Clinical Systems Improvement; www.icsi.org) to negotiate monthly bundled payments that covered costs of the salaries and benefits for care

Table 2. Strategies to Sustain Integrated Care for Children and Adolescents Based on Current and Emerging Payment Structures

STAGE	PROCEDURES
Initiation	Work with payers in your region/state to come to consensus on the value of the MC3 program. Provide evidence of inadequate behavioral health treatment for children and costs in your region/state, including costs to healthcare (eg, emergency department [ED] visits) as well as education/schools (eg, suspensions, detentions). If applicable, involve local chapters of national organizations. Ascertain information on utilization and costs of MC3 including evidence of preventable hospitalizations and ED visits, generic medication use, better school outcomes.
	Disseminate MC3 tool kit (eg, outcomes measures, telepsychiatry protocols, liaison coordinator [care manager] job description, and self-management materials) and identify which providers are responsible for Michigan Child Collaborative Care (MC3) program components. Outline gaps in reimbursement based on the Collaborative Care Model (CCM).
Working within limits: current fee-for-service payment structure	Start with existing billing codes such as those outlined in Table 1, and reference national sources such as the State Financing Integrated Healthcare Worksheets for the use of codes, available at the SAMHSA-HRSA Center for Integrated Health Solutions (www.integration.samhsa.gov/financing/billing-tools). Develop handbook for frontline primary care and community mental health providers that includes currently acceptable codes that they can use.
	Contact all contracted payers to determine if, and how much, they reimburse for the codes identified, and what documentation is needed for them to do so.
	If payers do not reimburse for codes you think are important, consider engaging in advocacy to “turn on” new codes and pilot the process in primary care practices. Especially important codes are those that can jump-start key MC3 processes, including self-management, assessment, and care management.
Negotiation: eg, bundled payments and alternative reimbursement options	If billing codes are unavailable or insufficient, establish a working group consisting of multiple stakeholders (eg, providers, caregivers, schools, payer representatives), solicit input on how they would benefit, and, based on their feedback, develop a core set of outcomes to benchmark CCM implementation. For instance: Providers: improved access to behavioral health and backup. Schools: fewer behavioral problems and suspensions. Insurance companies: reduced ED and hospital utilization. Publicize initial effectiveness early on to stakeholders.
	Propose reimbursement models to cover additional CCM services beyond fee-for-telepsychiatry service, including care management and telephone consultations (eg, bundled payments per member per month for contracted liaison coordinator and telephone consultation). Model costs of different reimbursement models applied to current demand in your state. Involve a third party to help negotiate payment rates for new reimbursement models (eg, Institute for Clinical and Systems Improvement).
Develop business plan for alternative reimbursement structure	Engage in conversations with established or potential accountable care organizations in your area and, if applicable, state health-care exchanges, regarding the value of applying MC3 to integrate behavioral health and general medical care, and under parity, to make behavioral healthcare part of the medical care benefit package and reimbursement mechanism in primary care practices. Be involved in negotiating how these organizations will operationalize the integration of behavioral health services into primary care settings, and how behavioral health providers, including liaison coordinators, will be reimbursed.
	Consider initiating a pilot program with payers or regional accountable care organizations to receive a payment based on how many patients fit into the integrated behavioral health propose a pilot program with State Department of Community Health to implement a bundled payment for care management and consultation services based on expected number of patients per county.

managers, as well as consultation times from psychiatrists. The availability of these bundled payments was sufficient for primary care clinics to invest in the start-up costs of hiring care managers and developing an outcomes registry.

Sustaining MC3: Building the Business Case

Based on the experience of DIAMOND and on discussions with state leadership, MC3 investigators outlined a process for developing an MC3 reimbursement strategy (Table 2) to work towards a sustainable reimbursement model for Michigan and elsewhere.

The framework outlines steps, including an initial evaluation of the program’s impact on value and cost of care (eg, reduced hospitalization and emergency department visits, and reduced brand-name medication use). The MC3 program director is currently evaluating the cost savings of the project in order to make the business case for a reimbursement model as well, and will be evaluating costs not covered by existing billing codes. The next step for the program’s leadership will be to engage in a negotiation with the state’s Medicaid and private insurers to develop a reimbursement model that is aligned with their interests towards

improving outcomes and reducing costs (Table 2). Ultimately a stakeholder workgroup should be formed to garner lessons learned from similar settings (eg, DIAMOND in Minnesota and the Massachusetts plan) and to propose a pilot reimbursement mechanism with an eye towards developing sustainable payment mechanisms under emerging ACO models in Michigan.

Collaborative care models such as the MC3 program have the potential to enhance access to behavioral health services care, especially in the wake of health care reform and ACOs.³⁶ In summary, MC3 and similar models have the potential to provide much-needed services for children with behavioral health problems in remote regions, and in turn improve use of evidence-based treatments that ultimately improve outcomes. These services can be provided in locations convenient for the patient and be delivered by their PCP, while allowing the PCP to enhance their skill level in providing these behavioral services. The development of reimbursement models, particularly those that are blended and combine features of fee-for-service with bundled payments that can cover care management and physician consultation costs, may allow for increased access to behavioral health-care, PCP capacity for delivering needed services, and ultimately a sustainable model for improving behavioral health outcomes among children and adolescents at risk of poor outcomes.

Author Affiliations: Dr Kilbourne is from the Department of Psychiatry, University of Michigan Medical School, Ann Arbor, MI. Drs Kilbourne, Patel, Rosenblum, Dopp, Hua, Muzjik, Marcus, and Ms Spinner and Ms Kramer are from the VA Health Services Research and Development Program, U.S. Department of Veterans Affairs, Washington, DC.

Author Disclosures: The authors report no relationship or financial interest with any entity that would pose a conflict of interest with the subject matter of this article.

Authorship Information: AMK drafted the manuscript, conducted the literature review, and developed the initial reimbursement strategy based on the collaborative care model. JS and SM wrote the section on the treatment model and provided relevant background on the clinical intervention. AK, PP, MM, and KLR provided feedback on paper drafts and information on the reimbursement mechanisms. RD, MM, and LIH provided input on the adaptation of the reimbursement model to the clinical intervention. All authors read and approved the final manuscript.

Address Correspondence to: Amy M. Kilbourne, PhD, MPH, VA Ann Arbor Center for Clinical Management Research, North Campus Research Complex, 2800 Plymouth Rd, Bldg 16, Ann Arbor, MI 48109-2800. Phone: 734-845-3502. Fax: 734-222-7503. E-mail: amykilbo@umich.edu.

REFERENCES

- Jaycox LH, Stein BD, Paddock S, et al. Impact of teen depression on academic, social, and physical functioning. *Pediatrics*. 2009;124(4):e596-e605.
- A 14-month randomized clinical trial of treatment strategies for attention-deficit/hyperactivity disorder: the MTA cooperative group: multimodal treatment study of children with ADHD. *Arch Gen Psychiatry*. 1999;56(12):1073-1086.
- Merikangas KR, He JP, Burstein M, et al. Service utilization for lifetime mental disorders in U.S. adolescents: results of the National Comorbidity Survey-Adolescent Supplement (NCS-A). *J Am Acad Child Adolesc Psychiatry*. 2011;50(1):32-45.
- Merikangas KR, He JP, Brody D, Fisher PW, Bourdon K, Koretz DS. Prevalence and treatment of mental disorders among US children in the 2001-2004 NHANES. *Pediatrics*. 2010;125(1):75-81.
- Ghandour RM, Kogan MD, Blumberg SJ, Jones JR, Perrin JM. Mental health conditions among school-aged children: geographic and sociodemographic patterns in prevalence and treatment. *J Dev Behav Pediatr*. 2012;33(1):42-54.
- Costello EJ, Mustillo S, Erkanli A, Keeler G, Angold A. Prevalence and development of psychiatric disorders in childhood and adolescence. *Arch Gen Psychiatry*. 2003;60(8):837-844.
- Kim WJ; American Academy of Child and Adolescent Psychiatry Task Force on Workforce Needs. Child and adolescent psychiatry workforce: a critical shortage and national challenge. *Acad Psychiatry*. 2003;27(4):277-282.
- Berdahl TA, Friedman BS, McCormick MC, Simpson L. Annual report on health care for children and youth in the United States: trends in racial/ethnic, income, and insurance disparities over time, 2002-2009. *Acad Pediatr*. 2013;13(3):191-203.
- Brown JD, Wissow LS. Discussion of sensitive health topics with youth during primary care visits: relationship to youth perceptions of care. *J Adolesc Health*. 2009;44(1):48-54.
- Garbutt JM, Leege E, Sterkel R, Gentry S, Strunk RC. Providing depression care in the medical home: what can we learn from attention-deficit/hyperactivity disorder? *Arch Pediatr Adolesc Med*. 2012;166(7):672-673.
- Stensrud TL, Mjaaland TA, Finset A. Communication and mental health in general practice: physicians' self-perceived learning needs and self-efficacy. *Ment Health Fam Med*. 2012;9(3):201-209.
- Zuckerbrot RA, Cheung AH, Jensen PS, Stein RE, Laraque D; GLAD-PC Steering Group. Guidelines for Adolescent Depression in Primary Care (GLAD-PC): I: identification, assessment, and initial management. *Pediatrics*. 2007;120(5):e1299-e1312.
- Cheung AH, Zuckerbrot RA, Jensen PS, Ghalib K, Laraque D, Stein RE; GLAD-PC Steering Group. Guidelines for Adolescent Depression in Primary Care (GLAD-PC): II. treatment and ongoing management. *Pediatrics*. 2007;120(5):e1313-e1326.
- Stein RE, Horwitz SM, Storfer-Isser A, Heneghan A, Olson L, Hoagwood KE. Do pediatricians think they are responsible for identification and management of child mental health problems? results of the AAP periodic survey. *Ambul Pediatr*. 2008;8(1):11-17.
- Zickafoose JS, Clark SJ, Sakshaug JW, Chen LM, Hollingsworth JM. Readiness of primary care practices for medical home certification. *Pediatrics*. 2013;131(3):473-482.
- Kuhlthau K, Jellinek M, White G, Vancleave J, Simons J, Murphy M. Increases in behavioral health screening in pediatric care for Massachusetts Medicaid patients. *Arch Pediatr Adolesc Med*. 2011;165(7):660-664.
- Foy JM, Perrin J; American Academy of Pediatrics Task Force on Mental Health. Enhancing pediatric mental health care: strategies for preparing a community. *Pediatrics*. 2010;125(suppl 3):S75-S86.
- Kelleher KJ, McInerney TK, Gardner WP, Childs GE, Wasserman RC. Increasing identification of psychosocial problems: 1979-1996. *Pediatrics*. 2000;105(6):1313-1321.
- Williams J, Klinepeter K, Palmes G, Pulley A, Foy JM. Diagnosis and treatment of behavioral health disorders in pediatric practice. *Pediatrics*. 2004;114(3):601-606.



20. Richardson LP, Lewis CW, Casey-Goldstein M, McCauley E, Katon W. Pediatric primary care providers and adolescent depression: a qualitative study of barriers to treatment and the effect of the black box warning. *J Adolesc Health*. 2007;40(5):433-439.
21. Richardson LP, Katzenellenbogen R. Childhood and adolescent depression: the role of primary care providers in diagnosis and treatment. *Curr Probl Pediatr Adolesc Health Care*. 2005;35(1):6-24.
22. Davis DW, Honaker SM, Jones VF, Williams PG, Stocker F, Martin E. Identification and management of behavioral/mental health problems in primary care pediatrics: perceived strengths, challenges, and new delivery models. *Clin Pediatr (Phila)*. 2012;51(10):978-982.
23. Myers KM, Palmer NB, Geyer JR. Research in child and adolescent telemental health. *Child Adolesc Psychiatr Clin N Am*. 2011;20(1):155-171.
24. Sarvet B, Gold J, Bostic JQ, et al. Improving access to mental health care for children: the Massachusetts Child Psychiatry Access Project. *Pediatrics*. 2010;126(6):1191-1200.
25. Hilt RJ, Romaine MA, McDonell MG, et al. The Partnership Access Line: evaluating a child psychiatry consult program in Washington State. *JAMA Pediatr*. 2013;167(2):162-168.
26. Neufeld JD, Yellowlees PM, Hilty DM, Cobb H, Bourgeois JA. The e-Mental Health Consultation Service: providing enhanced primary-care mental health services through telemedicine. *Psychosomatics*. 2007;48(2):135-141.
27. Woltmann E, Grogan-Kaylor A, Perron B, Georges H, Kilbourne AM, Bauer MS. Comparative effectiveness of collaborative chronic care models for mental health conditions across primary, specialty, and behavioral health care settings: systematic review and meta-analysis. *Am J Psychiatry*. 2012;169(8):790-804.
28. Fortney JC, Pyne JM, Mouden SB, et al. Practice-based versus telemedicine-based collaborative care for depression in rural federally qualified health centers: a pragmatic randomized comparative effectiveness trial. *Am J Psychiatry*. 2013;170(4):414-425.
29. Kolko DJ, Campo JV, Kilbourne AM, Kelleher K. Doctor-office collaborative care for pediatric behavioral problems: a preliminary clinical trial. *Arch Pediatr Adolesc Med*. 2012;166(3):224-231.
30. O'Donnell AN, Williams M, Kilbourne AM. Overcoming roadblocks: current and emerging reimbursement strategies for integrated mental health services in primary care. *J Gen Intern Med*. 2013;28(12):1667-1672.
31. Chassin MR, Loeb JM, Schmaltz SP, Wachter RM. Accountability measures — using measurement to promote quality improvement. *N Engl J Med*. 2010;363(7):683-688.
32. Jureidini J, Tonkin A, Jureidini E. Combination pharmacotherapy for psychiatric disorders in children and adolescents: prevalence, efficacy, risks and research needs. *Paediatr Drugs*. 2013;15(5):377-391.
33. O'Donnell AN, Williams BC, Eisenberg D, Kilbourne AM. Mental health in ACOs: missed opportunities and low-hanging fruit. *Am J Manag Care*. 2013;19(3):180-184.
34. Home page. Massachusetts Child Psychiatry Access Program website. <http://www.mcpap.com/>. Published 2008. Accessed November 26, 2014.
35. DIAMOND for depression. Institute for Clinical Systems Improvement website. https://www.icsi.org/health_initiatives/mental_health/diamond_for_depression/. Accessed December 2, 2014.
36. Lewis VA, Colla CH, Tierney K, Van Citters AD, Fisher ES, Meara E. Few ACOs pursue innovative models that integrate care for mental illness and substance abuse with primary care. *Health Aff (Millwood)*. 2014;33(10):1808-1816.