

The Use of Healthy Behavior Incentives in Medicaid

State Medicaid programs are increasingly seeking ways to encourage beneficiaries to adopt lifestyle and other behavioral changes that lead to improved health (Dudley et al. 2007). Such programs may encourage use of certain health services such as attending primary care appointments, filling prescriptions for chronic conditions, or getting prenatal care. Others focus on maintaining a healthy diet, increasing physical activity, or quitting smoking. They may offer direct financial incentives, reduce cost sharing requirements for certain services, or cover additional services. As of December 2015, 15 states operated healthy behavior incentive programs for certain populations, although no state offered healthy behavior incentives to every Medicaid enrollee (Table 1).

Efforts to promote healthy behavior among Medicaid enrollees have historically been implemented by Medicaid managed care plans or through grant funding. The Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) created new grant opportunities for states to implement such programs. In addition, Indiana, Iowa, and Michigan have included a healthy behavior incentive program as part of Section 1115 demonstration waivers that expand eligibility to the new adult group (CMS 2015a, CMS 2015b, CMS 2014a, CMS 2014c, CMS 2013).

Research on whether healthy behavior programs improve health outcomes, regardless of the source of health insurance coverage, is mixed. Some studies have found that incentives led to increased participation in one-time activities, such as receiving vaccinations or calling a smoking quitline, as well as increased participation in short-term behaviors, such as receiving preventive screenings. Other studies found that participants had difficulty sustaining permanent lifestyle changes, such as maintaining a healthy diet or exercise regimen (Giles et al. 2014, Paul-Ebhohimhen and Avenell 2008, Redmond et al. 2007).

Relatively few studies have examined the effectiveness of healthy behavior incentives in Medicaid. These studies have found that Medicaid enrollees were more likely to participate in one-time or short-term activities rather than changing long-term behaviors. In addition, providing incentives immediately after completion of an activity was found to be more effective than delayed distribution, and beneficiary outreach and education were difficult but important (DHS 2013, Yang 2013, Florida Medicaid 2011, Gurley-Calvez et al. 2010, Hendryx et al. 2009, OPPAGA 2008).

This issue brief focuses on the use of healthy behavior incentives in Medicaid, including the legal authorities, incentive structure, and the effect of these efforts on behavior.

Program Authorities

Historically, Medicaid did not have the authority to pay for incentives directly under fee for service, but instead worked with private partners such as health clinics and providers to create such programs. Medicaid managed care plans could provide incentives, such as gift cards and coupons to enrollees for completing certain tasks, such as taking a health risk assessment, under their administrative authority. Medicaid authority has evolved over time

so that states generally use one of three authorities to implement healthy behavior programs: Section 1115 demonstration waivers, alternative benefit plans, and grant funding.

Section 1115 demonstration waivers. New Mexico began implementing an incentives program through Section 1115 waiver authority in 2014, under which most of the state's Medicaid population is eligible (CMS 2014e). Similarly, Florida implemented an enhanced benefit reward program under Section 1115 waiver authority from 2006 to 2014 (Crawford and Onstott 2014).

Several states that have expanded Medicaid to the new adult group under Section 1115 waivers have included healthy behavior incentives that encourage the use of preventive care through reduced cost sharing and additional benefits. For example, Indiana is reducing cost sharing for enrollees who complete certain healthy behavior requirements such as receiving preventive services (CMS 2015b). To incentivize waiver enrollees to complete a health risk assessment, Iowa is waiving monthly premiums for those enrollees who are required to pay premiums, and offering additional benefits such as over-the-counter pharmacy benefits for those who do not pay premiums. The state is also offering enhanced oral health benefits to those who receive a dental check-up (CMS 2015a). Michigan is reducing liability for copayments and monthly premiums, as well as gift cards, for enrollees who complete a health risk assessment or other healthy behavior activities (CMS 2014a).

Arkansas, Arizona, Kentucky, and Ohio have recently proposed healthy behavior incentives in their Section 1115 waiver applications and amendments. Arkansas' proposal would provide additional benefits, such as oral health benefits, to individuals who complete healthy behaviors such as attending a primary care visit each calendar year (CMS 2016a). Arizona's waiver proposes to promote wellness through reduced cost sharing for those who receive flu shots, mammograms, and more. Arizona's proposal also aims to incentivize patients to manage chronic conditions such as diabetes, substance use disorders, and asthma by reducing cost sharing (AHCCCS 2015). Kentucky is seeking to reward enrollees who complete activities such as a health risk assessment, weight management course, or smoking cessation. Under this design, Medicaid will fund a rewards account for enrollees who complete these activities, which can be used to purchase enhanced benefits not covered in the base benefit package (CHFS 2016). Ohio is proposing to create a health incentive points system to pay for copayments and services not otherwise included in the benefit package. Points will be earned by receiving preventive care, achieving certain health care goals, and meeting specific health care benchmarks established by the enrollee's primary care physician (Ohio Department of Medicaid 2016).

Alternative benefit plans. Using authority created by the Deficit Reduction Act of 2005 (DRA, P.L. 109-171), states can implement healthy behavior incentives under state plan authority when the incentive program is included in alternative benefit plans, although relatively few states have used this approach. For example, Idaho's Wellness Preventive Health Assistance program paid \$10 per month to families who kept up-to-date with well-child visits and immunizations (Crawford and Onstott 2014). Enrollees in Kentucky's alternative benefit plan could receive additional benefits after completing one year in a disease management program.¹ West Virginia's alternative benefit plan provided enrollees with additional benefits if they signed a member agreement that included broad responsibilities, such as showing up on time for appointments and using hospital emergency rooms only in case of emergencies, and completed a health improvement plan with a primary care provider (Duncan et al. 2011, Gurley-Calvez et al. 2010, Kasprak 2006).

Grant funding. The ACA established the Medicaid Incentives for Prevention of Chronic Diseases (MIPCD) program, providing grant funding to ten states to implement healthy behavior programs under Medicaid between 2011 and 2015. These grants ranged from approximately \$415,000 to \$2.7 million in the first year, and were projected to total \$85 million over five years (CMS 2011a).² Programs focused mainly on smoking cessation, diabetes control, obesity reduction, hypertension, and preventive care. States could use the funding to pay for incentives and program management.

A November 2013 interim evaluation documented challenges and issues that states encountered while establishing MIPCD programs, resulting in delayed implementation of most efforts (HHS 2013). The evaluation found insufficient evidence to support extending MIPCD funding and the program expired on January 1, 2016. A June 2016 evaluation noted the challenges states faced in recruiting participants for the programs, but also noted that those who participated expressed satisfaction. A final evaluation is expected to be completed in April 2017 (CMS 2016b).

Program Design

Healthy behavior programs typically offer incentives to complete a task (for example, calling a smoking quitline) or participate in a healthy behavior (for example, increasing physical activity), achieve a health standard based on specific health outcomes, or make meaningful progress toward specific health goals (Anderson and Covert 2013). Almost all Medicaid healthy behavior incentive programs feature participation-based incentives (such as providing gift cards for attending well-child visits) although outcomes-based incentives were used in several MIPDC programs. Among them, Nevada offered incentives for controlling or reducing weight and lowering cholesterol or blood pressure, and New York offered incentives for losing or maintaining a reduced weight. Incentives ranged in from \$215 to \$1,150 annually in MIPCD programs. Some programs provide incentives immediately upon completing a behavior; in others—such as in Florida—they are provided later, for example when a premium adjustment occurs at the end of the year (Crawford and Onstott 2014, Blumenthal et al. 2013).

Targeted behaviors

Medicaid healthy behavior incentive programs target a variety of behaviors. Among the most common are prenatal care, diabetes prevention and management, and smoking cessation. Incentives for clinical interventions include:

- completing a high-risk pregnancy screening,
- attending a postpartum visit,
- receiving diabetes education during clinical visits,
- care coordination,
- filling diabetes prescriptions,
- using nicotine replacement therapies or nicotine patches, and
- contacting a smoking quitline (CMS 2014a, HHS 2013, MACPAC 2013).

Other programs focus on self-management behavior, such as:

- losing weight,



- increasing physical activity,
- decreasing systolic blood pressure, and
- eating a healthier diet (CMS 2014a, HHS 2013).

States have also focused incentives on:

- completing a health risk assessment and wellness exam,
- getting dental check-ups,
- reducing high blood pressure or hyperlipidemia,
- managing diabetes through lifestyle interventions,
- attending primary care appointments,
- filling prescriptions,
- getting routine preventive care, or
- maintenance of mental illness treatments (CMS 2014b, HHS 2013).

In addition to the targeted behaviors listed above, Texas offered person-centered wellness planning. Idaho focuses its healthy behavior programs on children, offering incentives to attend well-child check-ups and keep immunizations current. New Mexico offers a specific motivational health-promotion program for individuals with bipolar disorder or schizophrenia who refill their psychotropic maintenance prescriptions (CMS 2014b, HHS 2013).

Incentives used

Healthy behavior incentives can be structured as either rewards or penalties. Medicaid programs typically use positive rewards and bonuses, with money and money-valued incentives most commonly offered (Anderson and Covert 2013). These include debit cards that can be used for any purchase, or gift cards for specific outlets such as grocery stores, pharmacies, or gas stations. Other money-valued rewards include earning points toward rewards that can be redeemed from a catalog, and flexible spending accounts which can be used for a variety of wellness activities (HHS 2013).

States have offered services and other incentives to encourage participation. These include transportation, child care, cell phones, vouchers for farmers markets, car seats, exercise equipment, and tobacco cessation supplies. Several states have offered memberships to a gym or Weight Watchers, smoking cessation counseling, and nicotine replacement therapy patches. Texas offered measuring cups and spoons, food and bathroom scales, pedometers, and exercise bands among other incentives (CMS 2015a, HHS 2013).

Indiana, Iowa, and Michigan reduce premium or cost-sharing requirements for program participants who complete certain behaviors. These incentives can only be targeted only for those higher-income enrollees, as enrollees with lower incomes (below 100 or 50 percent of the federal poverty level depending on the state) typically do not pay premiums and cost sharing. When states use reduced premium or cost-sharing requirements for higher-income enrollees, they generally offer other incentives to those for whom cost sharing does not apply (CMS 2015b, CMS 2014a, CMS 2014b, NASHP 2012).



Some healthy behavior incentive programs provide enhanced benefits to program participants. Iowa offers enhanced oral health benefits, such as restorative and periodontal services to those who attend a dental visit (CMS 2015a). West Virginia provided additional benefits, such as cardiac and pulmonary rehabilitation, to people who participated in the West Virginia Mountain Health Choices program which expired on December 31, 2013.

TABLE 1. Design of Current Medicaid Wellness Incentive Programs

| State | Target population | Medicaid authority | Incentives used | Targeted behaviors |
|-------------|--|----------------------|--|------------------------------------|
| California | Enrollees with mental health or substance use disorders, racial and ethnic minorities, pregnant women and mothers of newborns, enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Money-valued (e.g., gift card), treatment-related | Smoking |
| Connecticut | Enrollees with mental health disorders, pregnant women and mothers of newborns, enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Money | Smoking |
| Hawaii | Racial and ethnic minorities, enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Money, money-valued (e.g., gift card), prevention-related, points redeemable for rewards, support to address barriers to participation | Diabetes |
| Idaho | Children | State Plan Amendment | Reduced premiums | Obesity, preventive care |
| Indiana | New adult group | 1115 waiver | Reduced cost sharing | Preventive care |
| Iowa | New adult group | 1115 waiver | Prevention-related incentives, enhanced benefits, reduced premiums or cost sharing | Preventive care |
| Michigan | New adult group | 1115 waiver | Reduced premiums or cost sharing | Smoking, diabetes, preventive care |

| State | Target population | Medicaid authority | Incentives used | Targeted behaviors |
|---------------|--|--------------------|---|--|
| Minnesota | Enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Money, prevention-related incentives, support to address barriers to participation | Diabetes, obesity |
| Montana | Pregnant women and mothers of newborns, enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Money, support to address barriers to participation | Diabetes, obesity, hyperlipidemia, hypertension |
| Nevada | Children, enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Points redeemable for rewards | Diabetes, obesity, hyperlipidemia, hypertension |
| New Hampshire | Enrollees with mental health disorders, enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Money, prevention-related incentives, treatment-related incentives, support to address barriers to participation | Smoking, obesity |
| New Mexico | Children, enrollees dually eligible for Medicare and Medicaid, those with behavioral health needs, those living with HIV/AIDS, the medically fragile | 1115 waiver | Credits redeemable for rewards | Diabetes, preventive care (dental), prenatal care, asthma, schizophrenia |
| New York | Pregnant women and mothers of newborns | MIPCD grant | Money | Smoking, diabetes, hypertension |
| Texas | Enrollees with mental health or substance use disorders | MIPCD grant | Flexible spending accounts for wellness activities, prevention-related incentives, treatment-related incentives, support to address barriers to participation | Smoking, diabetes, obesity, hyperlipidemia, hypertension |
| Wisconsin | Racial and ethnic minorities, pregnant women and mothers of newborns, enrollees dually eligible for Medicare and Medicaid | MIPCD grant | Money, money-valued (e.g., gift card), support to address barriers to participation | Smoking |

Note: Data current as of December 2015. MIPCD is Medicaid Incentives for Prevention of Chronic Diseases program.

Sources: CMS 2015a, CMS 2015b, CMS 2014a, CMS 2014b, CMS 2014c, CMS 2014e, HHS 2013.

Program Outcomes

The effects of Medicaid healthy behavior programs have not been extensively studied. In addition, variations in program design make it difficult to generalize to what extent findings from one program can be applied to another program.³ Nevertheless, evaluations of Medicaid healthy behavior programs in Florida, West Virginia, and Wisconsin provide some evidence on the effectiveness of healthy behavior incentives, although they found mixed results.⁴

Florida Enhanced Benefits Rewards program. This program, implemented through Florida's Section 1115 Medicaid Reform Waiver from 2006 to 2014, allowed waiver enrollees to earn credits by participating in certain healthy activities that could be redeemed for the purchase of health-related products (OPPAGA 2008). More recently, the state has required managed care plans to encourage and reward healthy behaviors (CMS 2011b, Florida Medicaid 2011).

Evaluations of Florida's enhanced benefit rewards program found that:

- Program participants generally had lower Medicaid spending than non-participants. (Yang 2014, Yang 2013).
- Most wellness incentive credits were awarded for one-time or short-term actions such as physician visits, pediatric preventive care, and prescription drug compliance. Few were awarded for long-term wellness activities such as smoking cessation or weight loss (Hall et al. 2013).
- Non-English speakers, individuals of Hispanic ethnicity, individuals with lower educational attainment, and individuals with poorer self-reported health status were less likely to engage in a healthy behavior through the program (Hall et al. 2013).

A 2008 legislative report also found that the program faced operational challenges, such as delays in awarding rewards for up to 90 days and enrollee difficulty in redeeming earned credits (OPPAGA 2008).

West Virginia Mountain Health Choices program. This program, which began in 2007, gave all beneficiaries basic coverage, and provided enhanced coverage to those who had a health assessment and signed a member agreement requiring them to, among other things, participate in health improvement programs. Beneficiaries in the enhanced package who complied with the agreement received additional benefits such as cardiac and pulmonary rehabilitation, and many chemical dependency and mental health services. West Virginia's program ended on December 31, 2013, when the state's Medicaid program underwent an overall restructuring as it implemented the ACA Medicaid expansion (WVDHHS 2013).

An evaluation of West Virginia's program found that adults who enrolled in enhanced coverage were less likely to exercise daily (21.2 percent) than those enrolled in basic coverage (41.1 percent), even though the basic coverage lacked healthy behavior requirements. It also found that adults enrolled in enhanced coverage with healthy behavior requirements, who reported being in poorer health than those with basic coverage, visited the doctor more often and filled more prescriptions. The evaluation did not note whether enrollees were motivated by healthy behavior requirements or by the added services provided by the enhanced plan, but did note that the increase in

use of services was small in comparison to utilization levels before the Mountain Health Choices program (Gurley-Calvez et al. 2010).

Wisconsin Individual Incentive initiative. Wisconsin conducted six pilot projects from 2008 to 2010, targeting different populations and offering different incentives. An evaluation found that rewards encouraged enrollment and promoted desired healthy behavior activities, though it was not possible to determine a causal link. However, enrollees reported that new information through classes and materials on subjects such as healthy habits for children and lead poisoning was as helpful in motivating them to change their behavior as the incentives. The most successful projects piloted in Wisconsin distributed incentives on site just after an activity ended. Additionally, the Wisconsin projects did not find that larger incentives were necessarily associated with more positive outcomes. Though the evaluation did not examine the return on investment to the state or plans, health plans noted that they did not accurately gauge the amount of staff time needed for implementation, requiring the state and plans to devote additional resources to the projects (DHS 2013).

Additional studies of healthy behavior incentive programs in Medicaid. Beyond state evaluations, a few studies have focused on strategies that encourage participation in healthy behavior incentives programs. Selected findings include:

- Enrollees are more likely to participate in one-time or short-term behaviors than long-term behaviors.
- Outreach and education are vital but difficult; in-person communication, particularly with someone with whom the beneficiary had a prior relationship, was considered most effective. Written materials such as mailings were considered less effective.
- Timeliness of incentive distribution is important. Distributing incentives immediately after completion of an activity was most effective in improving outcomes and encouraging beneficiaries to follow-up with another healthy behavior activity. Specifically, one study noted that healthy behavior projects were more successful if the incentives were provided as quickly as possible after participants completed an activity to ensure that the link between actions and rewards was understood (DHS 2013).
- One study found an association between a state's incentive program and lower Medicaid expenditures, but cost savings were not discussed in any other studies. (Yang 2013).

The Centers for Medicare & Medicaid Services (CMS) released a report to Congress on the MIPCD program in July 2016, noting that utilization measures (decreased hospitalization and emergency department use) between the treatment and control groups were inconsistent and not statistically significant. Only one state (California) had provided enough information to determine the program's effect on expenditures, which showed little significant effect in the short-term; however, CMS cautioned that general conclusions cannot be drawn from one state (CMS 2016b). The report also noted that state level self-evaluations will not be completed until September 2016, and CMS' final evaluation is expected in April 2017 (CMS 2016b).

Endnotes

¹ Kentucky's alternative benefit plan featured several disease management programs, for example, a program for individuals with pediatric obesity, pediatric asthma, adult asthma, heart failure, and diabetes. Some disease management programs were only available in selected counties (Families USA 2007).

² The final total expenditure for the grant program has not yet been published.

³ For purposes of evaluation some states offer lower-valued incentives to members of a control group. The New York program, for example, offered a small incentive to a comparison group of participants who do not take part in the wellness intervention. The comparison group did not receive incentives for meeting process or outcome measures.

⁴ Several evaluations of the use of healthy behavior incentives in employer-sponsored insurance have had findings similar to the results seen in Medicaid programs. For example, incentives can positively affect one-time or short-term behaviors but are less successful in incentivizing behaviors that require a longer commitment (Giles et al. 2014, Van Vleet and Rudowitz 2014, Churchill et al. 2014, Blumenthal et al. 2013, Wu 2012, Redmond et al. 2007). Evidence is also mixed regarding a return on investment of healthy behavior incentive programs in employer-sponsored insurance (Liu et al. 2013, Monheit 2010).

References

- America's Health Insurance Plans (AHIP). 2005. *Innovations in Medicaid managed care*. Washington, DC: AHIP. <https://www.ahip.org/Innovations-in-Medicaid/>.
- Anderson, D., S. Covert. 2013. *Workplace Health Incentives*. Presentation for the CDC's National Healthy Worksite Program informational webinar. May 20, 2013. http://www.cdc.gov/nationalhealthyworksite/docs/nhwp_workplace_health_incentives_final_tag508.pdf.
- Arizona Health Care Cost Containment System (AHCCCS). 2015. *Arizona's application for a new Section 1115 demonstration: Section I—program description*. Phoenix, AZ: State of Arizona. <https://www.azahcccs.gov/shared/Downloads/WaiverApplicationNarrative.pdf>.
- Blumenthal, K.J., K.A. Saulsgiver, L. Norton, et al. 2013. Medicaid incentive programs to encourage healthy behavior show mixed results to date and should be studied and improved. *Health Affairs*, 32(3): 497–507. <http://www.ncbi.nlm.nih.gov/pubmed/23459728>.
- Center for Health Care Strategies, Inc. (CHCS). 2014. *Examples of consumer incentives and personal responsibility requirements in Medicaid*. Hamilton, NJ: CHCS. http://www.chcs.org/media/Consumer-Incentive-Matrix_060414.pdf.
- Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2016a. Section 1115 of the Social Security Act Medicaid demonstration: Arkansas Works Section 1115 demonstration. June 28.

Baltimore, MD: CMS. <https://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ar/ar-works-pa.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2016b. *Second report to Congress: Medicaid Incentives for Prevention of Chronic Diseases evaluation*. <https://innovation.cms.gov/files/reports/mipcd-secondrtc.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2015a. Section 1115 of the Social Security Act Medicaid demonstration: Iowa Wellness Plan Section 1115 demonstration. December 30. Baltimore, MD: CMS. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ia/ia-wellness-plan-ca.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2015b. Healthy Indiana Plan (HIP) 2.0. January 27. Baltimore, MD: CMS. <http://www.medicaid.gov/Medicaid-CHIP-ProgramInformation/By-Topics/Waivers/1115/downloads/in/Healthy-Indiana-Plan-2/in-healthy-indiana-plan-support-20-ca.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014a. Section 1115 of the Social Security Act Medicaid demonstration: Healthy Michigan Section 1115 demonstration. December 31. Baltimore, MD: CMS. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/mi/mi-healthy-michigan-ca.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014b. Attachment to Idaho Medicaid State Plan. October 31, 2014. <http://healthandwelfare.idaho.gov/Portals/0/Medical/MedicaidCHIP/BasicBenchmark.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014c. Section 1115 of the Social Security Act Medicaid demonstration: Amendment to the Iowa Marketplace Choice plan. December 30. Baltimore, MD: CMS. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/ia/ia-marketplace-choice-plan-ca.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014d. Letter from Kathryn A. Coleman to Medicare Advantage Organizations regarding “*Rewards and Incentives Program Guidance*.” December 4, 2014. <http://www.healthlawpolicymatters.com/files/2014/12/Rewards-and-Incentives-Final12042014.pdf>.

Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2014e. Section 1115 of the Social Security Act Medicaid demonstration: Centennial Care Section 1115 demonstration. November 18. Baltimore, MD: CMS. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/nm/nm-centennial-care-ca.pdf>.

- Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2011a. *Medicaid incentives for prevention of chronic diseases grants: Fact sheet*. <http://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2011-Fact-sheets-items/2011-09-13.html>.
- Centers for Medicare & Medicaid Services (CMS), U.S. Department of Health and Human Services. 2011b. Section 1115 of the Social Security Act Medicaid demonstration: Florida Managed Medical Assistance amendment approval, special terms and conditions. December 16. Baltimore, MD: CMS. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/fl/Managed-Medical-Assistance-MMA/fl-medicaid-reform-stc-12162011-06302014.pdf>.
- Churchill, S.A., H. Gillespie, N.H. Herbold. The desirability of wellness program and incentive offerings for employees. 2014. *Benefits Quarterly*, 30(1): 48. <http://connection.ebscohost.com/c/articles/94727058/desirability-wellness-program-incentive-offerings-employees>.
- Claxton, G., M. Rae, N. Panchal et al. 2014. *The Kaiser Family Foundation and Health Research & Educational Trust employer health benefits 2014 annual survey*. Henry J. Kaiser Family Foundation. Menlo Park, CA and Health Research & Educational Trust, Chicago, IL: Henry J. Kaiser Foundation. <http://files.kff.org/attachment/2014-employer-health-benefits-survey-full-report>.
- Crawford, M., and M. Onstott. 2014. *Healthy behavior incentives: Opportunities for Medicaid*. Hamilton, NJ: Center for Health Care Strategies, Inc. http://www.chcs.org/media/Healthy-Behavior-Incentives_Opportunities-for-Medicaid_1.pdf.
- Dudley, R.A., T. Chien-Wen, K. Bozic et al. 2007. *Consumer financial incentives: A decision guide for purchasers*. Agency for Healthcare Research and Quality (AHRQ). Rockville, MD: AHRQ. <http://archive.ahrq.gov/professionals/quality-patient-safety/quality-resources/value/incentives/incentives.pdf>.
- Duncan, R.P., A.G. Hall, J.S. Harman, et al. 2011. *Evaluating Florida's Medicaid Reform Demonstration Pilot: 2006–2011 summary report*. Florida Medicaid. Tallahassee, FL: University of Florida, prepared for The Florida Agency for Health Care Administration. http://ahca.myflorida.com/medicaid/quality_management/mrp/contracts/med027/FL_1115_Final_UF_Eval_Report_12-15-11.pdf.
- Families USA. 2007. Kentucky Medicaid reform: Using the DRA to implement changes. Washington, DC: Families USA.
- Florida Medicaid, Agency for Health Care Administration. 2011. Section 1115 of the Social Security Act Medicaid demonstration: Florida Managed Medical Assistance amendment request, attachment II. August 1. Tallahassee,



FL: AHCA. <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/1115/downloads/fl/Managed-Medical-Assistance-MMA/fl-medicaid-reform-attach-2.pdf>.

Giles, E.L., S. Robalino, E. McColl, F.F. Sniehotta, and J. Adams. 2014. The effectiveness of financial incentives for health behavior change: Systematic review and meta-analysis. *PLoS One* 9, no. 3.

Greene, J. 2007. *Medicaid efforts to incentivize healthy behaviors*. Center for Health Care Strategies. http://www.chcs.org/media/Medicaid_Efforts_to_Incentivize_Healthy_Behaviors.pdf.

Gurley-Calvez, T., P. Fitzgerald Bone, A. Pellillo, et al. 2010. *Mountain Health Choices beneficiary report: A report to the West Virginia Bureau for Medical Services*. Morgantown, WV: West Virginia University and West Virginia Department of Health and Human Resources, Bureau for Medical Services.

Hall, A.G., C. Harris Lemak, A. Yarbrough Landry, R. P. Duncan. 2013. Incentives for healthy behaviors: Experience from Florida Medicaid's Enhanced Benefit Rewards Program. *Journal of Primary Care & Community Health*, 4, no. 2: 112-118.

Hawaii Patient Reward and Incentives to Support Empowerment (HI-PRAISE). Mission statement. <http://www.cds.hawaii.edu/hipraise/mission-statement/>.

Hendryx, M., C. Irvin, J. Mulligan, et al. 2009. *Evaluation of Mountain Health Choices: Implementation, challenges, and recommendations*. Morgantown, WV: The West Virginia University Institute for Health Policy Research and Mathematica Policy Research. http://www.issuelab.org/resource/evaluation_of_west_virginias_mountain_health_choices_implementation_challenges_and_recommendations.

Kane, R.L., P.E. Johnson. R.J. Town, M. Butler. August 2004. *Economic incentives for preventive care*. Agency for Healthcare Research and Quality (AHRQ), U.S. Department of Health and Human Services. Rockville, MD: AHRQ. <http://archive.ahrq.gov/downloads/pub/evidence/pdf/ecinc/ecinc.pdf>.

Kasprak, J. 2006. *Medicaid programs—Kentucky and West Virginia*. Connecticut Office of Legislative Research (OLR). Hartford, CT: OLR. <http://www.cga.ct.gov/2006/rpt/2006-R-0528.htm>.

Kentucky Cabinet for Health and Family Services (CHFS). 2016. *Draft application: Kentucky Health: Helping to engage and achieve long-term health*. Frankfort, KY: State of Kentucky. <http://chfs.ky.gov/NR/rdonlyres/A7F17FE3-7E2D-40EF-B404-5D8D12DB9EAB/0/62216KentuckyHEALTHWaiverProposal.pdf>.

Liu, H., S. Mattke, K.M. Harris, et al. 2013. Do workplace wellness programs reduce medical costs? Evidence from a Fortune 500 company. *Inquiry*, 50(2): 150-158. <http://www.ncbi.nlm.nih.gov/pubmed/24574132>.

Medicaid and CHIP Payment and Access Commission (MACPAC). 2013. Maternity services: Examining eligibility and coverage in Medicaid and CHIP. *June 2013 Report to the Congress on Medicaid and CHIP*. Washington, DC: MACPAC. <https://www.macpac.gov/publication/ch-1-maternity-services-examining-eligibility-and-coverage-in-medicaid-and-chip/>.

Monheit, A.C. Can reform's prevention incentives help to bend the cost curve? 2010. *Inquiry*, 47(3): 179-185. <http://www.ncbi.nlm.nih.gov/pubmed/21155413>.

National Academy for State Health Policy (NASHP). 2012. Idaho CHIP fact sheet. Portland, ME and Washington, DC: NASHP. <http://nashp.org/sites/default/files/CHIP/2012/NASHP-2012-Idaho-CHIP-Fact-Sheet.pdf>.

Ohio Department of Medicaid. 2016. *Draft Application: Healthy Ohio Program 1115 Demonstration Waiver*. Columbus, OH: State of Ohio. <http://medicaid.ohio.gov/Portals/0/Resources/PublicNotices/HealthyOhio-Detail.pdf>.

Office of Program Policy Analysis & Government Accountability (OPPAGA), an office of the Florida Legislature. 2008. Medicaid Reform: Beneficiaries Earn Enhanced Benefits Credits but Spend Only a Small Portion. Tallahassee, FL: Florida Agency for Health Care Administration. <http://www.oppaga.state.fl.us/reports/pdf/0845rpt.pdf>.

Paul-Ebhohimhen, V. and A. Avenell. Systematic review of the use of financial incentives in treatment for obesity and overweight. *Obesity Review* 9, no. 4: pp. 355-367.

Redmond, P., J. Solomon, M. Lin. 2007. *Can incentives for healthy behavior improve health and hold down Medicaid costs?* Washington, DC: Center on Budget and Policy Priorities. <http://www.cbpp.org//archiveSite/6-1-07health.pdf>.

U.S. Department of Health and Human Services (HHS). 2013. *Initial report to Congress: Medicaid Incentives for Prevention of Chronic Diseases evaluation*. https://innovation.cms.gov/Files/reports/MIPCD_RTC.pdf.

Van Vleet, A., R. Rudowitz. 2014. *An Overview of Medicaid Incentives for the Prevention of Chronic Diseases (MIPCD) grants*. Washington, DC: Kaiser Commission on Medicaid and the Uninsured. <https://kaiserfamilyfoundation.files.wordpress.com/2014/09/8631-an-overview-of-medicaid-incentives-for-the-prevention-of-chronic-diseases-mipcd-grants.pdf>.

West Virginia Department of Health and Human Services Bureau for Medical Services (WVDHHS). 2013. *West Virginia Medicaid Mountain Health Trust annual report: State fiscal year 2013 (July 2012–June 2013)*. Morgantown, WV: West Virginia Department of Health and Human Services. http://www.dhhr.wv.gov/bms/Members/Managed%20Care/Documents/Reports/Annual%20Reports/WV_MHT_AnnualReportSFY2013.pdf.



Wisconsin Department of Health Services (DHS). 2013. *Do incentives work for Medicaid members? A study of six pilot projects*. Wisconsin Department of Health Services. Madison, WI: DHS. <https://www.dhs.wisconsin.gov/publications/p0/p00499.pdf>.

Wu J. Rewarding healthy behaviors—pay patients for performance. 2012. *The Annals of Family Medicine*, 10(3): 261-263. <http://www.ncbi.nlm.nih.gov/pubmed/22585891>.

Yang, S., J. Harman, A. G. Hall, R. P. Duncan. 2014. *Evaluating the effect of the Enhanced Benefits Rewards (EBR) Program participation on Florida Medicaid expenditures*. Presentation to AcademyHealth annual research meeting conference. June 8, 2014, San Diego, CA. <http://www.academyhealth.org/files/2014/sunday/yang.pdf>.

Yang, S. 2013. *Evaluating the effect of the Enhanced Benefits Rewards program participation on Florida Medicaid utilizations and expenditures*. Gainesville, FL: Shuo Yang, University of Florida.