U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

EVALUATION OF THE MEDICAID HEALTH HOME OPTION FOR BENEFICIARIES WITH CHRONIC CONDITIONS:

PROGRESS AND LESSONS FROM THE FIRST STATES IMPLEMENTING HEALTH HOME PROGRAMS, ANNUAL REPORT - YEAR FOUR

April 2016

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ACRONYMS

The following acronyms are mentioned in this report or appendix.

ACA	Affordable Care Act
ACO	Accountable Care Organization
AIDS	Acquired Immune Deficiency Syndrome
ARCW	AIDS Resource Center of Wisconsin
BHH	Behavioral Health Home
BMI	Body Mass Index
CBHC	Community Behavioral Health Center
CCNC	Community Care of North Carolina
CCO	Coordinated Care Organization
CCT	Community Care Team
CEDARR	Comprehensive Evaluation, Diagnosis, Assessment, Referral, Re-evaluation
CMHC	Community Mental Health Center
CMHO	Community Mental Health Organization
CMS	HHS Centers for Medicare and Medicaid Services
CYSHCN	Children and Youth with Special Health Care Needs
EHR	Electronic Health Record
FFS	Fee-For-Service
FQHC	Federally Qualified Health Center
HARP	Health and Recovery Plan
HbA1c	Glycated Haemoglobin
HHS	U.S. Department of Health and Human Services
HIE	Health Information Exchange
HIN	Health Information Network
HIPAA	Health Insurance Portability and Accountability Act
HIT	Health Information Technology
HITECH	Health Information Technology for Economic and Clinical Health Act
HIV	Human Immunodeficiency Virus
LTSS	Long-Term Services and Supports

MAPCP	Multi-payer Advanced Primary Care Practice
MCO	Managed Care Organization
MOU	Memorandum of Understanding
NCQA	National Committee for Quality Assurance
PCCM	Primary Care Case Management
PCMH	Patient-Centered Medical Home
PCNA	Patient Care Networks of Alabama
PCP	Primary Care Provider
PCPCH	Patient-Centered Primary Care Home
PMPM	Per Member Per Month
RCO	Regional Care Organization
RHC	Rural Health Clinic
SED	Serious Emotional Disturbance
SIM	State Innovation Model
SMI	Serious Mental Illness
SPA	State Plan Amendment
SPMI	Serious and Persistent Mental Illness
SUD	Substance Use Disorder

EXECUTIVE SUMMARY

The Medicaid health home option, created in the Affordable Care Act (ACA), is an innovative model of care that allows states to provide coordinated and integrated care for beneficiaries with chronic physical, mental, or behavioral conditions. Some of the key elements of the health home model include a focus on high-cost, high-need populations; integration of physical and behavioral health care; coordination of medical as well as nonmedical services; and inclusion of a wide variety of providers that may serve as health homes, such as hospitals, care management networks, home health agencies and community mental health centers.

This report summarizes program progress and presents key lessons learned from experience of 11 states: Alabama, Idaho, Iowa, Maine, Missouri, New York, North Carolina, Ohio, Oregon, Rhode Island, and Wisconsin. Findings are drawn from qualitative data collected during the long-term evaluation of health home implementation and outcomes, which the Urban Institute is conducting under contract to the U.S. Department of Health and Human Services, Office of the Assistant Secretary of Planning and Evaluation.

Background

The Medicaid health home option, established in Section 2703 of the ACA in 2010 and authorized by Section 1945 of the Social Security Act, allows states to create health homes as an optional state Medicaid plan service. States receive 90% federal match for health home services provided to Medicaid beneficiaries for the first eight quarters the State Plan Amendment is in effect. All participating states must identify a target population of persons with chronic health or behavioral conditions and offer them six required health home services: (1) comprehensive care management; (2) care coordination and health promotion; (3) comprehensive transitional care, including appropriate follow-up; (4) patient and family support; (5) referral to community and social support services; and (6) use of health information technology (HIT) to link services, as feasible and appropriate.

The law allows states latitude in other key components of the health home model, including the choice of population and health conditions targeted, types of providers and program participation requirements, health home team composition, geographic coverage, and payment methodology and rates, contributing to a significant variation in structures and processes each state and/or provider has put in place to meet the specific needs of its health home population. Three major organizational structures emerged in the 11 health home states studied in this evaluation: *medical home-like programs* are variations on or extensions of the patient-centered medical home (PCMH); *specialty provider-based programs* use entities that traditionally serve special-

needs populations, such as mental health providers, but integrate specialized care with primary care; and *care management networks* bring together a variety of organizations, including both clinical and nonclinical providers, to jointly care for health home enrollees.

Health Homes: Adapting to the Changing Context

At the time the information for this report was collected and analyzed, all 13 programs examined had completed their two-year intervention period during which they qualified for an enhanced federal match for health home services. In all but one state health home programs were still operating. The exception was Oregon, which ended health homes as a distinct program and folded it into the state's patient-centered primary care home initiative. Two other states--Idaho and Ohio--were considering major changes to their programs. Idaho was contemplating subsuming health homes into its PCMH initiative and Ohio was planning to dissolve health homes altogether as part of an overall behavioral system redesign. The remaining eight states in our evaluation are continuing their health home programs in the foreseeable future, although in Iowa there was uncertainty about how other Medicaid program changes would affect health homes. Some states are moving forward with their original design and others are making or planning modifications, such as geographic and population expansions, or payment system and methodology adjustments. Iowa, Maine, New York, and Rhode Island are developing or have developed additional health home programs.

State Evaluation Activities

Most states have not been able to conduct self-evaluation studies, most often because of insufficient infrastructure for collecting and analyzing data from providers. Three states--North Carolina, Oregon, and Rhode Island--did not conduct internal evaluations to determine the effect of the programs. Missouri, Iowa, and Ohio conducted evaluations covering part of their early experience and published results, and five others--Alabama, Idaho, New York, Maine, and Wisconsin--are finalizing their reports or are in the process of data analysis. For the most part, early results appear to indicate that the health home program is improving care for patients and, in some cases, having desired impacts on utilization and costs. Important caveats to these assessments of health home impacts are: (1) it is very difficult, if not impossible, to distinguish health home-specific effects from the effects of other initiatives and changes occurring at the same time; (2) results available to date are from periods early in the program when implementation was still ongoing; and (3) all evaluation activities to date have been based solely on Medicaid data, even though 11 of the 13 programs include persons dually eligible for Medicare.

Health Home Impacts on Delivery of Care

Because quantitative analyses generally were not yet available, the information in this report relies solely on informant impressions of changes taking place in the delivery system, which may or may not be attributable to the health home program. Most informants believe there have been improvements in the care enrolled members are receiving because of changes brought about by health homes and other delivery system reforms. In the areas of care coordination, integration of behavioral and physical health, and member engagement, our informants felt health homes were making continuous improvements. Transitional care, especially after hospitalizations, seems to be an area of ongoing concern for many states and providers, with some health home programs experiencing changes in the right direction and others still intensively working on improvements. Most health homes felt enrollee access to nonclinical services has improved during the course of the program, although few saw any changes related to access to long-term services and supports, mostly due to relatively small proportion of their patients in need of them.

Importantly, providers in our evaluation states appreciated the benefits of health homes for their patients and were largely supportive of the model as a way to address needs of Medicaid beneficiaries with physical and mental chronic conditions and complex socio-economic situations. Given the relatively short intervention period and often slow and challenging implementation of the program, many providers were concerned that the full potential of the health home program is yet to be realized and asked that policymakers keep this in mind when they consider early utilization and cost outcomes. Many states have participated in multiple pilots and demonstration projects simultaneously with health homes, making it difficult for providers to identify health home program-specific impacts and further complicating objective evaluation of the health home program.

In a few states, health home programs may have caused unintended consequences for participating providers. Notably, in Maine, implementation of the Stage B behavioral health homes diverted some of the patients from Stage A primary care health homes which caused confusion and administrative burden for Stage A providers. In New York, a claims-based payment structure initially implemented by the state failed to recognize factors such as mental illness or homelessness as contributing to high-need, and underestimated provider costs to care for these complex patients.

Use of Health Information Technology and Data Analytics

Although health homes are expected to use HIT to coordinate and integrate services to the extent feasible, we found that there continues to be considerable variation among health home states in availability and functionality of HIT infrastructure and technical or financial assistance offered to providers, as well as in the extent to which individual providers use HIT and data analytics tools to coordinate and manage care. In some states, improvements in terms of growing provider adoption of electronic

health records (EHRs) or greater capacity and utilization of health information exchange (HIE) systems have taken place over the course of the health home program. However, respondents attribute most of these improvements to HIT initiatives and grants that have been or are being implemented alongside the health homes, such as the HITECH programs, rather than tying them with the participation in the health home program.

Barriers to greater adoption and use of HIT to coordinate care cited include the cost and limits of the technology needed to engage in HIE, use of different EHR products among providers in a community, misconceptions about federal and state health information privacy laws and regulations, lack of technical assistance to providers, patient resistance to using electronic portals, and workflow issues. Challenges to engaging providers in data analytics include difficulty using the technology, low adoption of available reports and tools, and the lack of baseline data for examining changes over time.

What Contributes to Health Home Performance?

Characteristics of successful health home providers identified by the respondents include strong leadership and staff buy-in, well-developed infrastructure (including HIT), technical and financial resources needed to make necessary practice changes, and previous experience with patient-centered care management. In states with medical home-like health home programs, federally qualified health centers were found to be particularly successful in implementation of the health home model due to their organizational structure and previously established connections with social service providers. Specialty-based health home providers also had benefited from prior experience with care coordination and linking patients to community support services, but some struggled with integration of primary and behavioral/mental health services, as well as transitional care. Providers using the care management network model to coordinate services generally performed well as health homes, but the degree of success largely dependent on each health home's ability to build trust and develop relationships with both clinical and nonclinical provider organizations in the community.

In our evaluation states, many providers had to undertake practice changes (e.g., new staff roles and processes), infrastructure development (e.g., obtaining required certifications), or both, in order to become health homes. Often, these practice changes were undertaken at the same time as enrollment and treatment of health home-eligible patients, placing additional strain on providers and slowing the pace of practice transformation. Many health homes are still working to improve fundamental aspects of the health home model, including comprehensive care management and coordination, behavioral health integration, hospital transitions, and effective use of HIT. Except in New York, the only state that made financial assistance available to providers specifically for practice transformation, state support to providers largely has been limited to providing program guidance and technical assistance.

Insights from State Officials and Providers

While informants in all evaluation states emphasized the strengths of the health home model and its value to high-need, high-cost Medicaid enrollees, many suggested changes and improvements to designs of specific health home programs and presented recommendations that have broader implications to federal and state policymakers and are particularly relevant to states that are developing or considering health homes. Among other things, providers recommended that states assist health homes in fostering productive relationships with hospitals, as well as other health care providers and payers, to help them meet care coordination and management requirements. Other areas in which respondents made a number of suggestions include care team roles and composition, enrollee eligibility criteria, data availability and reporting infrastructure, payment structure and financial support for infrastructure development, duplication of services concerns, and program structure and flexibility, including provider preparation and participation criteria. Because practice or health system change and implementation of a new program inevitably takes time, many respondents warned that a two-year intervention period may not be long enough to show measurable impacts, which may not necessarily mean the program is failing.

Lessons Learned

A number of important lessons were gleaned from the national health home evaluation activities. Among the suggestions and lessons these first 11 health home states have to offer are the need to:

- Develop the health home design and implement the program in collaboration with providers and other stakeholders.

- Assess provider readiness to assume new roles and responsibilities.

- Provide initial and continuing assistance with practice transformation.

- Ensure that HIT and other infrastructure is in place to support communication, care coordination, exchange of data, and monitoring of outcomes.

- Provide adequate financial support to providers.

Conclusions

In this report we described the status of the 13 health home programs and early findings from state evaluations; overall experience, perceptions, and opinions of providers, state program staff, and other stakeholders regarding the strengths and weaknesses of designs and operation of state models; and key lessons learned. Overall, respondents agree that the model is well-suited to serve the targeted, high-

need populations selected, and the few state evaluations available to date show promise with respect to reduced utilization and costs. Most states in our evaluation plan to continue the program in the near-term, and some have implemented or are planning to implement new health homes for additional populations. An underlying issue in many health home states, and probably the most important lesson learned, is the importance of having the infrastructure for operating and monitoring the program in place before it begins, so providers can focus on enrollee care needs and meeting the program objectives.

I. INTRODUCTION

The Medicaid health home option, established in Section 2703 of the Affordable Care Act (ACA) in 2010 and authorized by Section 1945 of the Social Security Act, enables states to provide coordinated and integrated care for beneficiaries with chronic physical, mental, or behavioral conditions as an optional state Medicaid plan service.[1] Although closely related to the patient-centered medical home (PCMH), the health home model is distinguished by: (1) its focus on high-cost, high-need populations; (2) its emphasis on whole-person care integrating physical, mental, and other behavioral health care services; and (3) care coordination that extends beyond clinical settings to include long-term care services and social and community supports. Another important distinction is that while primary care providers (PCPs) are key players, a wide variety of providers may serve as health homes, including hospitals, care management networks, and specialized providers such as home health agencies and community mental health centers (CMHCs). As of October 2015, 20 states have implemented a total of 28 health home programs.[2]

The Urban Institute is conducting the long-term evaluation of health home implementation and outcomes mandated in the ACA, under contract to the U.S. Department of Health and Human Services (HHS), Office of the Assistant Secretary of Planning and Evaluation. The evaluation includes the first 13 programs approved in 11 states. These are two programs each in Missouri and Rhode Island, and one program each in Alabama, Idaho, Iowa, Maine, New York, North Carolina, Ohio, Oregon, and Wisconsin. Effective dates range from October 1, 2011, to January 1, 2013. Detailed descriptions of the 13 health home programs are available in the second-year report.[3] The third-year report examines provider experiences with program implementation, provision of required services, and use of health information technology (HIT).[4]

This fourth-year report summarizes program progress and lessons learned from experience during the two-year intervention period, defined as the first eight quarters of the program, during which each state received a 90% Federal Government match for health home services provided. Program adjustments, future plans, and sustainability issues are also discussed. Finally, the report presents suggestions for changes to program design and implementation processes based on insights from our informants. Lessons learned from the early adopters of the program can provide important insights to other states and to policymakers.

II. METHODS

The five-year long-term evaluation of Medicaid health home programs in selected states began on October 1, 2011. The aims of the evaluation are to assess: (1) what models, providers, and processes states are choosing for health homes; (2) the extent to which state health home designs result in increased monitoring and coordination across clinical and nonclinical domains of care; and (3) whether the models result in better quality of care and outcomes, specifically, reduced use of hospitals, skilled nursing facilities, and emergency departments, and lower costs. The health home model is intended to provide enhanced integration and coordination of primary, acute, behavioral health (mental health and substance use) services, and long-term services and supports (LTSS) for persons with chronic illness.[5] A central expectation is that enhanced access to and coordination of services--especially management of care transitions--will reduce unnecessary use of emergency departments and avoidable facility-based care in hospitals and nursing homes and result in reduced program costs.

The first four years of evaluation activities have focused on qualitative and quantitative data collection, and the final year will focus on conducting quantitative analyses and preparation of findings for use in the Secretary's 2017 Report to Congress on the long-term evaluation, required in Section 2703 of the ACA.

Findings in this report are drawn from information collected during a final round of annual follow-up telephone interviews with state program staff, health home providers, provider associations, and other stakeholders, conducted between April and July 2015. Most informants were selected from a pool of persons initially interviewed during site visits to each state during the first and second year of the evaluation. In a few instances where the original informant was no longer part of the state agency or provider organization, alternative informants with intimate knowledge of the program were identified and interviewed. Health home providers participating in this evaluation range from sole-provider rural primary care practices to large urban clinics, capturing a range of experience with the new responsibilities inherent in the health home model and different patient populations. In total, we conducted 39 interviews during this follow-up year. A limitation is that this report summarizes information and perceptions obtained from a relatively small number of informants. Thus, some perspectives may not have been captured, and some information or opinions may not be generalizable.

Protocols developed for this round of qualitative interviews focused on state experience with the health home program during the two-year intervention period, as well as program changes and plans for the future. Topics covered included informant assessments of program design and outcomes; impacts of the program on delivery of care and beneficiary experience; use of HIT; attributes of successful provider types; and provider experience with practice transformation. We also asked about sustainability and suggestions for specific program changes as well as advice for policymakers and

others considering the health home program, including the HHS Centers for Medicare and Medicaid Services (CMS), states, and providers. Two sets of protocols were developed, one for state officials and advocates and one for provider organizations, and customized as needed to reflect unique characteristics of each health home program. Core protocols are provided in Appendix A. We also asked program staff in each state to fill out a status table collecting basic information about program enrollment and participating providers to supplement information collected during telephone interviews (see Appendix A). Each interview was recorded, transcribed, and coded using NVivo (a qualitative research software program) to organize the data, identify common patterns and themes, and synthesize the information.

Additional detail about qualitative activities and methods, the quantitative component of the evaluation, and the evaluation design and timeline are available in the second-year and third-year reports.[6]

III. BACKGROUND

Section 2703 outlines basic requirements and options for states interested in establishing a health home program.[7] States must identify a target population of persons with chronic health or behavioral conditions they intend to include. All participating states must offer their target beneficiaries six required health home services, although they have flexibility in defining particular features and delivery methods for each service. The required services are: (1) comprehensive care management; (2) care coordination and health promotion; (3) comprehensive transitional care, including appropriate follow-up; (4) patient and family support; (5) referral to community and social support services; and (6) use of HIT to link services, as feasible and appropriate.[8] States receive a 90% federal match for these specific services for the first eight quarters the State Plan Amendment (SPA) is in effect and their regular match rate thereafter. States must provide assurances in their SPAs that hospitals participating in the Medicaid program will establish procedures for referring potentially eligible patients treated in emergency departments to health home providers. Consistent with the focus of the health home model on integration of physical and behavioral health care services, all states are required to consult with the Substance Abuse and Mental Health Services Administration in developing their health home programs.

The law allows states latitude in most components of the health home model, including the choice of conditions targeted, types of providers and program participation requirements, health home team composition, geographic coverage, and payment methodology and rates. To qualify for health home services Medicaid beneficiaries must have at least: (1) two or more chronic conditions; (2) one chronic condition and be at risk of developing another; or (3) one serious and persistent mental illness (SPMI). Chronic conditions may include mental illness, substance abuse, asthma, diabetes, heart disease, obesity, and or others approved by CMS. Most states in the evaluation offer health home services to a broad range of beneficiaries, including individuals with all three categories of conditions, but a few states limit eligibility to just one or two categories of conditions (Table 1). States must, however, offer health home services to all categorically needy Medicaid enrollees who qualify on the basis of health conditions and geographic area, regardless of age, and, specifically, may not exclude beneficiaries who are dually eligible for Medicare and Medicaid (also called “duals” or “dually eligible” individuals). States also have the option of including the medically needy. The number of health home enrollees varies greatly across states, depending on a number of factors. Among them are the number and type of qualifying conditions selected (e.g., one qualifying condition in Wisconsin--HIV/AIDS--renders a small population), the size of the state Medicaid program, the number and type of participating providers, geographic coverage, and enrollment procedures.

TABLE 1. Health Home Program Features in Evaluation States				
State (program)	**Member Eligibility Criteria**	**Enrollment[a] (share who are dually eligible or children)**	**Number of Providers, Service Locations and Geographic Coverage**	**Providers and Payment Structures**
Patient-Centered Medical Homes and Extensions				
Oregon	• 2 chronic conditions • 1 chronic condition and the risk of developing another • 1 SMI	63,402 (15% duals; 27% children)	236 providers statewide	Participating providers were PCPCHs that met standards in a 3-tiered state-developed recognition program. PMPM payment rates increased with the tier of PCPCH recognition achieved.
Missouri (primary care)	• 2 chronic conditions • 1 chronic condition and the risk of developing another	14,361 (38% duals; 2.5% children)	24 providers in 83 locations statewide	Providers include FQHCs, RHCs, and primary care clinics operated by hospitals. PMPM payment rates are adjusted annually for cost of living increases.
Iowa	• 2 chronic conditions • 1 chronic condition and the risk of developing another	5,991 (33% duals; 22% children)	48 providers in 79 locations statewide	Health home practices may include PCPs, CMHCs, FQHCs, and RHCs. The state developed 4-tiered PMPM rates based on a patient's acuity, with patients in each subsequent tier requiring more complex care.
Idaho	• 2 chronic conditions • 1 chronic condition and the risk of developing another • 1 SMI	8,266 (14% duals; 66% children)	48 providers statewide	Participating providers may include PCPs, CMHCs, community health centers, and home health agencies. The PMPM rate includes an extra $1.00 to cover the costs of NCQA recognition, as all providers must obtain at least Level 1 NCQA recognition by their second year in the health home program.
Specialty Provider-Based				
Rhode Island (CYSHCN)	• 2 chronic conditions • 1 chronic condition and the risk of developing another • 1 SMI	2,791 (0% duals; 100% children)	4 providers statewide	CEDARR Family Centers are the only designated providers. Reimbursement is a mix of FFS payments, with case rates for intake and assessment, care plan development, and annual care plan review and established rates per 15-minute increments of time for other services.
Rhode Island (mental health)	• 1 SMI	9,279[b] (48% duals; 0% children)	8 providers statewide	CMHOs and 2 CMHCs serve as designated health home providers. The monthly case rate payment reflects personnel costs and staffing ratios based on estimates of client need.
Missouri (mental health)	• SPMI • Mental health condition and 1 other chronic condition • SUD and 1 other chronic condition • Mental health condition or a SUD and tobacco use	19,247 (40% duals; 12% children)[c]	27 providers statewide	Designated providers are CMHCs. PMPM payment rates are adjusted annually for cost of living increases.

TABLE 1 (*continued*)				
State (program)	**Member Eligibility Criteria**	**Enrollment[a] (share who are dually eligible or children)**	**Number of Providers, Service Locations and Geographic Coverage**	**Providers and Payment Structures**
Ohio	• 1 SMI	10,316 (7% duals; 38% children)	6 providers in 5 counties	Designated health home providers are CBHCs. PMPM rates are site-specific and based on costs.
Wisconsin	• HIV/AIDS and the risk of developing another chronic condition	150 (48% duals; 0% children)	1 provider in 3 locations covering 4 counties	ARCW is the only health home provider. In addition to PMPM payments, ARCW receives a flat fee for patient assessment which may be billed annually if reassessment is needed.
Care Management Networks				
North Carolina	• 2 chronic conditions • 1 chronic condition and the risk of developing another	529,354[d] (20% duals; 52% children)	1,786 PCPs statewide	Health home services are coordinated through a pre-existing care management program, CCNC, in collaboration with PCPs. The state pays separate PMPM rates to networks and to PCPs.
New York	• 2 chronic conditions • HIV/AIDS and the risk of developing another chronic condition • 1 SMI	130,160 (75,580 enrolled and 54,580 in outreach) (30% duals; 10% children)	32 lead agencies in 48 locations Statewide	Health home lead agencies assemble a network of providers to collectively coordinate and deliver health home services. PMPM payments are tiered based on patient acuity and providers receive 80% of PMPM rate for outreach and enrollment activities.
Alabama	• 1 chronic condition and the risk of developing another (Alabama considers the presence of any of the conditions as indicating risk for another)	74,660 (0% duals; 80% children)	187 providers in 4 regions comprising 21 counties	Patient Care Networks of Alabama (PCNAs) provide wraparound care management to PCPs to deliver health home services. PCNAs and PCPs receive separate PMPM rates.
Maine (Stage A)	• 2 chronic conditions • 1 chronic condition and the risk of developing another	54,883 (11% duals; 43% children)	181 providers statewide	PCPs conduct care management for all health home enrollees, while the regional CCTs provide health home services only to the top 5% of high-cost, high-need patients referred by PCPs. The PMPM rate for CCTs is substantially higher than the rate for PCP services.

SOURCE: Information obtained from review of Health Home SPAs approved by CMS and interviews with state informants (April - July 2015).

a. Indicates the number of enrollees at the end of 8-quarter enhanced match period, unless otherwise noted.
b. Number of enrollees in 2014.
c. Missouri's Journey to Healthcare Home, April 14, 2015, http://www.cbha.net/Resources/Conference/Missouri's%20Journey%20to%20Healthcare%20Home.pdf; Progress Report: Missouri CMHC Healthcare Homes. http://dmh.mo.gov/docs/mentalillness/prnov13.pdf.
d. Number of enrollees from October 2011 - November 2012.

The flexibility to choose designated provider types and organizational structures has led states in our evaluation to develop models that fall into three general categories (Table 1). Idaho, Iowa, Missouri (primary care program), and Oregon have developed ***medical home-like programs***, which are variations on or extensions of the PCMH. Participating providers in these states include PCPs, federally qualified health centers

(FQHCs), rural health clinics (RHCs), and CMHCs. ***Specialty provider-based programs*** in Missouri (mental health program), Ohio, both Rhode Island programs, and Wisconsin center on entities that traditionally serve special-needs populations, such as CMHCs, but integrate specialized care with primary care. Health home programs in Alabama, Maine, New York, and North Carolina rely on ***care management networks***, which are consortiums of care coordination entities, direct physical and mental/ behavioral health care providers, social services agencies, and other community organizations. Alabama, Maine, and North Carolina rely on care management entities partnering with PCPs. In New York, a wide array of providers may serve as health home lead agencies, including hospitals, home health agencies, health and human services agencies, and substance abuse treatment facilities. There is great diversity in the types of personnel states require or allow on health home teams across the three general models, including, but not limited to clinicians, nutritionists, social workers, pharmacists, community health workers, substance abuse providers, and peer support specialists.

All states included in this evaluation have relied on pre-existing structures and care coordination programs when developing and implementing their health home initiatives, often aligning their health home programs with other delivery system reforms. Although core principles of the program remain the same across the 11 states, there is a significant variation in structures and processes each state and/or provider has put in place to meet the specific needs of its health home population or fit into larger delivery system transformation efforts. Table 1 presents basic characteristics of each program, in terms of the number of beneficiaries enrolled, the percent of enrollees who are dually eligible or children, the number of providers and geographic coverage, and designated providers and payment structure, as of the end of the two-year intervention period. Additional detail, such as the specific conditions and risk factors that states have specified, payment system and levels, and composition of the health home team in each state is available in previous evaluation reports.[9]

IV. HEALTH HOMES: ADAPTING TO THE CHANGING CONTEXT

When we collected and analyzed information for this report, all 13 programs examined had completed their intervention period (the eight quarters of enhanced federal match). In all but one state--Oregon--health homes were still operating, although two other states--Idaho and Ohio--were considering major changes to their programs. The remaining eight states in our evaluation are continuing their health home programs in the foreseeable future, although in Iowa there was uncertainty about how other Medicaid program changes would affect health homes. Some states are moving forward with their original design, others are making or planning modifications, and a few states are developing and implementing additional health home programs (Table 2).

Patient-Centered Medical Home and Extensions

Oregon essentially used the health home program to kick-start its own primary care medical home initiative--patient-centered primary care homes (PCPCHs)--as part of the state's health care delivery system transformation efforts. Providers interested in becoming health homes had to obtain state-designed PCPCH certification. As an incentive, the state provided enhanced three-tiered per member per month (PMPM) payments for health home enrollees, with higher tiers for providers who had achieved a higher level of state-determined standards. However, the state wanted to expand the care management and coordination activities to all Medicaid beneficiaries, not just those with selected chronic conditions as specified by the SPA, so after the completion of the eight-quarter enhanced match period in September 2013, health homes as a distinct program ended (the state officially withdrew its health home SPA effective July 31, 2014). Certified PCPCHs continue to provide health home-like services to all Medicaid beneficiaries, and to state employees who choose a PCPCH provider, with no enhanced payments from the state. Coordinated care organizations (CCOs), the first of which were launched in 2012, are Oregon's Medicaid accountable care organizations (ACOs) and are required to include PCPCHs in their care networks to the extent possible.[10] CCOs have the flexibility to provide technical assistance, higher value-based PMPM payments, or both, to help PCPCHs sustain health home-like services.

TABLE 2. Developments in Health Home Programs and Other Delivery System Initiatives in the Evaluation States								
State (program)	Health Home Program Developments				Other Medicaid Developments[1]			
	8-Quarter Enhanced Match Period	SPA Status	Changes to the Model Implemented or Planned	Additional Health Homes Implemented or in Development	Medicaid Expansion	SIM Grant	Medicaid ACO Initiatives	Other Existing or Planned Initiatives/ Activities
Patient-Centered Medical Homes and Extensions								
Oregon	10/1/11 - 9/30/13	Withdrawn	Discontinued health homes as a distinct program at the end of September 2013 and withdrew its SPA effective July 31, 2014.	None	Yes	Yes	Coordinated Care Organizations (CCOs)[2]	PCPCHs serving all Medicaid beneficiaries and enrolled state employees.
Missouri (primary care)	1/1/12 - 12/31/13	In effect	Some measures were discontinued. Added new provider types (e.g., private groups, independent RHCs). Planning to change eligibility criteria for children.	None	No	No	None	
Iowa	7/1/12 - 6/30/14	In effect	Modified payment and tier assessment tool to streamline patient tier assignment and provider attestation. Delayed implementation of provider incentive payments.	Integrated Health Home Program for individuals with SPMI effective July 1, 2013.	Yes, but expansion population is not eligible for health home services.	Yes	ACOs for the expansion population.[3]	Medicaid program is moving toward a risk-based managed care approach, beginning in January 2016.[7]
Idaho	1/1/13 - 12/31/14	In effect	Considering continuing the health home program under a different authority as part of the PCMH initiative.	None	No	Yes	None	Idaho Medical Home Multi-payer Pilot.[8] The state is planning to combine Healthy Connections (Medicaid PCCM program) with Health Homes.[9]
Specialty Provider-Based								
Rhode Island (CYSHCN)	10/1/11 - 9/30/13	In effect	None	Opioid Treatment Health Home Program effective July 1, 2013.	Yes	Yes	ACOs in development.[4]	Implemented Phase II of the Integrated Care Initiative to coordinate care for Medicare-Medicaid enrollees.[10] MAPCP Demonstration.[11]
Rhode Island (mental health)	10/1/11 - 9/30/13	In effect	None					

TABLE 2 (*continued*)								
State (program)	**Health Home Program Developments**				**Other Medicaid Developments**[1]			
	8-Quarter Enhanced Match Period	**SPA Status**	**Changes to the Model Implemented or Planned**	**Additional Health Homes Implemented or in Development**	**Medicaid Expansion**	**SIM Grant**	**Medicaid ACO Initiatives**	**Other Existing or Planned Initiatives/ Activities**
Missouri (mental health)	1/1/12 - 12/31/13	In effect	Expanded program capacity to accept more enrollees. Planning to possibly modify some aspects of the program to better meet needs of pediatric population.	None	No	No	None	
Ohio	10/1/12 - 9/30/14	In effect	Implemented Phase II of the program (geographic expansion); changed member eligibility criteria and provider requirements; reduced provider payments by 10%. Planning to disaggregate the health home services.	None	Yes	Yes	None	As part of the behavioral health system redesign, the state plans to disaggregate traditional community psychiatric supportive treatment services and move to a FFS payment model.
Wisconsin	10/1/12 - 9/30/14	In effect	Plans to change rules so Medicaid members enrolled in managed care will be able to enroll in a health home simultaneously (currently not allowed).	Submitted an application for an SPMI health home but later withdrew.	No	No	None	
Care Management Networks								
North Carolina	10/1/11 - 9/30/13	In effect	None	None	No	No	ACOs in development.[4]	MAPCP Demonstration.[11]
New York	1/1/12 - 12/31/13 4/1/12 - 3/31/14 7/1/12 - 6/30/14	In effect	Changed payment methodology from an individual acuity based payment to tiered payments (high, medium and low) with functional adjustments. Planning to expand to new populations (e.g., HARP enrollees).	Submitted an application for a health home serving children with chronic conditions and complex trauma; expected to rollout in October 2016.	Yes	Yes	ACOs in development.[4]	Behavioral health services are transitioning to managed care. HARP will serve individuals with SMI and SUD.[12] MAPCP Demonstration[11] Delivery System Reform Incentive Payment Program.[13]
Alabama	7/1/12 - 6/30/14	In effect	Expanded the program statewide, adding 2 more health home providers. Added Hepatitis C as a qualifying condition.	None	No	No	Regional Care Organizations (RCOs) will oversee health homes.[5]	

TABLE 2 (*continued*)								
State (program)	Health Home Program Developments				Other Medicaid Developments[1]			
	8-Quarter Enhanced Match Period	SPA Status	Changes to the Model Implemented or Planned	Additional Health Homes Implemented or in Development	Medicaid Expansion	SIM Grant	Medicaid ACO Initiatives	Other Existing or Planned Initiatives/ Activities
Maine (Stage A)	1/1/13 - 12/31/14	In effect	Modified member identification process to better identify appropriate members for Stage A and Stage B.	BHH (Stage B) effective April 1, 2014.	No	Yes	Accountable Communities[6]	MAPCP Demonstration.[11]

SOURCE: Information obtained from review of Health Home SPAs approved by CMS and interviews with state informants (April - July 2015).

1. The list of initiatives is not exhaustive.
2. http://www.oregon.gov/oha/OHPB/pages/health-reform/ccos.aspx.
3. http://dhs.iowa.gov/ime/about/iowa-health-and-wellness-plan/ACO-VIS.
4. http://www.chcs.org/media/ACO-Fact-Sheet-032116.pdf.
5. http://medicaid.alabama.gov/documents/2.0_Newsroom/2.7_Topics_Issues/2.7.3_RCOs/2.7.3_RCO_Fact_Sheet_2-9-16.pdf; http://medicaid.alabama.gov/documents/2.0_Newsroom/2.7_Topics_Issues/2.7.3_RCOs/2.7.3_ALERT_FAQs_1-21-15.pdf.
6. http://www.maine.gov/dhhs/oms/vbp/accountable.html.
7. http://dhs.iowa.gov/ime/about/initiatives/MedicaidModernization.
8. https://www.pcpcc.org/initiative/idaho-medical-home-collaborative-imhc.
9. http://healthandwelfare.idaho.gov/Default.aspx?TabId=216.
10. https://www.cms.gov/Newsroom/MediaReleaseDatabase/Press-releases/2015-Press-releases-items/2015-07-30.html.
11. http://innovation.cms.gov/initiatives/Multi-Payer-Advanced-Primary-Care-Practice/.
12. https://www.health.ny.gov/health_care/medicaid/redesign/behavioral_health/.
13. https://www.health.ny.gov/health_care/medicaid/redesign/dsrip/.

Missouri's evaluation studies of its two health home programs (primary care and mental health) found significant impacts on health services utilization and costs after one year. As a result, both Missouri health home programs enjoy support of the state leadership and the legislature who have continued to underwrite and expand health homes using state general funds. As the programs have matured, small changes have been implemented. On the primary care side, the state is no longer tracking three of the 17 quality measures identified in the SPA. Childhood immunization and pediatric diabetes measures were dropped because of low program enrollment among children. Body mass index (BMI) is still being tracked, but a healthy BMI measure tracked on a monthly basis was not helpful to providers and also was discontinued. The primary care program also expanded the types of providers that can qualify as health homes to include private and independent practices, in addition to the initial FQHCs, RHCs, and hospital-owned primary care practices. For the future, state officials will be looking into how to structure the criteria and services to better serve children.

Iowa health home evaluation studies also found savings to the Medicaid program--about $9 million over the first 18 months of the program[11]--and somewhat mixed results for utilization of services. Findings were increased outpatient visits relative to other beneficiaries and decreased emergency department use for enrollees in the middle two tiers of the program's four-tiered acuity assessment, no change in utilization for those in the lowest tier, and an increase for those in the highest tier.[12] The results were sufficiently encouraging to provide support for continuation of the program and helped the state identify areas of improvement and future direction. Over the course of the program, the state has made structural changes to the health home model. These include simplifying assessment, claims submission, and payment procedures to alleviate challenges providers experienced with the initial acuity tier assessment process which determined the PMPM payment received (for more detail, see the Year 3 report[13]). The state also postponed incentive payments to providers based on their achievement in meeting selected quality and performance benchmarks. Lump-sum incentive payments had been planned for the second year of program operation, but technological challenges have prevented the state from collecting and analyzing the data necessary to award incentive payments.

Other recent developments have or are expected to affect Iowa's primary care health home program. A second SPA for an Integrated Health Home program serving adults with a SPMI and children with a serious emotional disturbance (SED) went into effect in July 2013.[14] Although Medicaid beneficiaries who have both physical and mental health ailments cannot be enrolled in both health home programs, primary care and mental health providers must coordinate care for patients they have in common, which has been a challenge for at least some health homes. The Iowa Medicaid program also is undergoing more global transformations: beginning April 1, 2016, the majority of beneficiaries and services will transition to risk-based managed care.[15] A State Innovation Models (SIMs) grant is building on the Medicaid ACOs which serve the state's Medicaid expansion population and over the next four years will become accountable for their attributed members' long-term care and behavioral health

services.[16] Neither state officials nor providers were certain whether and how these changes may affect health homes in the future.

Idaho state officials report that preliminary evaluation data suggests the state's health home program has been successful in reducing emergency department visits and hospitalizations and lowering the costs for enrolled participants by about 7%. While the state was not planning to end the health home program per se, state officials informed us that the state had been considering rolling health homes into a larger PCMH initiative focusing on broader populations and conditions. The structure and services health homes provide will most likely remain the same or be only slightly modified, but the state is planning to continue the program under a different Medicaid authority. These plans were still in development at the time we spoke with the state officials, and it was not clear whether and when the changes would occur.

Specialty Provider-Based Programs

Rhode Island built both its health home programs on long-established specialty provider systems that had experience in care coordination and integration of health services with community supports, with the intent of improving and enhancing services already in place. Comprehensive Evaluation, Diagnosis, Assessment, Referral, Re-evaluation (CEDARR) Family Centers have existed since 1998, serving children and youth with special health care needs (CYSHCN). Community mental health organizations (CMHOs) have managed the care of adult Medicaid and Medicare enrollees and the uninsured with SPMI for more than 50 years. Even though the state does not have outcomes data to show whether the health home programs have improved care and reduced costs, these providers are viewed as integral parts of Rhode Island's health care system and their services are highly valued. Health home providers themselves report that the health home services are particularly beneficial to high-need populations they serve. The state intends to continue operation of both health homes with state funding, but is looking into redesigning the programs to better meet their aims.

Missouri's mental health program also showed promising impacts on utilization of services and costs per enrollee, qualitatively similar to those found in the analysis of the state's primary care program. Given these early positive results, the program expanded capacity to add 5,000 new enrollees who could benefit from enhanced care management and coordination. Similarly to the primary care health homes, mental health home program officials are exploring options for modifying the program to better meet the needs of pediatric population.

Ohio was planning to discontinue its health home program, although the impetus is more closely tied to sustainability of the services. When we spoke with the state officials in the summer of 2014, the state was in the midst of implementing Phase II of the health home program, expanding services to six more counties (initially, health homes were operating in five counties only). Although the geographic expansion took

place, it was scaled back from the original intent of expanding statewide, and large cuts in provider payments, which were among the highest among the 13 programs included in the evaluation, were implemented for sustainability reasons. When we followed up with the state a year later (summer 2015), the state was taking steps toward dissolving health homes as early as 2016 (the initial end date of December 2015 has been postponed indefinitely). Ohio state officials told us health homes were being examined as part of an overall behavioral system redesign. The intention was to disaggregate bundled health home services provided by the Community Behavioral Health Centers (CBHCs) as part of the redesign. Alternative options would be made available for the current health home enrollees, including a care coordination program, which would most likely be reimbursed on a fee-for-service (FFS) basis. Some provider informants, however, believed the proposal to end the program was in part motivated by the results of a state-commissioned evaluation report (discussed below). The report found that costs for health home enrollees were higher in every medical service category, relative to their costs prior to health home enrollment, amounting to $183 cost increase on top of the average $333 PMPM payment for health home services.[17]

Wisconsin's experience with its health home program is similar to that of Rhode Island, relying completely on an existing infrastructure to deliver health home services. The state focused exclusively on individuals affected by HIV/AIDS and selected a single health home provider--AIDS Resource Center of Wisconsin (ARCW)--because of its extensive experience and capabilities to deliver comprehensive medical, behavioral, dental, and social services. The state has made no adjustments to the model since it was implemented and has been supporting the program through general revenue since the federal enhanced match ended. In the near term, the state is planning to change its Medicaid policy to allow beneficiaries enrolled in managed care to be also enrolled in the health home if necessary. The change is supported by ARCW staff and will increase the number of people who can access health home services. State officials also spoke of possibly re-evaluating payment rates and expanding health homes to more counties in the future.

Care Management Networks

North Carolina selected a well-established primary care case management (PCCM) organization--Community Care of North Carolina (CCNC)--to serve as its health home provider and designated persons served by CCNC who met the state's chronic condition as health home enrollees. CCNC has been providing chronic disease management and care integration services to Medicaid beneficiaries through its 14 regional networks for several years prior to health homes. No significant changes have been made to CCNC's underlying structures, processes, enrollee assignment, provider requirements or payment rates as a result of the state's adoption of the health home program. The state implemented the program administratively, using the enhanced federal match funding to defray Medicaid costs with no health home-related change in practice or payments to CCNCs or PCPs. CCNCs and PCPs we spoke with identified no changes brought about by the health home program.

New York has built its health home program on a long history of care coordination and disease management improvement efforts for Medicaid beneficiaries with chronic conditions and SPMI. Thus, health homes in New York benefit from both substantial base of experience in providing health home-like services and strong commitment from providers and state officials to program success. Going forward, New York is fundamentally redesigning the payment system for health home services to better target high-need enrollees and adequately reimburse providers for the level of care they provide. Originally, the state built a health home payment rate based on patient acuity derived from Medicaid claims data and adjusted for geography (upstate versus downstate). As the program was implemented, providers found that because a member's acuity score was based solely on Medicaid claims, it did not capture psychological and social factors that may contribute to a member's health needs. Such factors include uncontrolled substance use disorder (SUD), active HIV/AIDS, homelessness, and functional limitations. The new payment structure is based on claims data in combination with input from health home providers who will assess a member's functional status and enter pertinent member information into the Medicaid analytic portal to better inform the acuity score and subsequently the payment rate. Three acuity risk bands--high, medium, and low--will be based on an enrollee's medical and functional needs, with different payment rates for each band in proportion to the intensity of care health homes provide. Persons who are homeless are automatically placed in the high acuity band. The new payment structure is expected to become effective in January 2016.[18] Another change on the horizon is enrollment of the Health and Recovery Plan (HARP) members in the program, expected to take place early in 2016. HARP is a new Medicaid plan for adults with mental health and SUD conditions. The state is working to tailor New York's Health Home model for children and expects to phase in the enrollment of children in September 2016.[19]

Alabama's health home program has achieved favorable outcomes with respect to utilization and costs, according to preliminary analyses, and enjoys support from the state Medicaid program and the legislature. An analysis of 2014 data indicated lower rates of hospital inpatient stays and emergency department visits, improving access to care, and decreasing PMPM costs for health home members. In April 2015, the state used a second SPA to expand its health home program, initially implemented in 21 counties, statewide. The new SPA generates enhanced federal match for the newly added 46 counties over the next two years. Alabama is financing the program in the original 21 counties through the regular match. The state also added Hepatitis C as a qualifying condition. Another recent development in Alabama is the implementation of Medicaid Regional Care Organizations (RCOs), local care coordination entities, scheduled to take full effect in October 2016. At the moment, there are 11 probationary RCOs operating in the state, six of which have been approved to prepare for full implementation through participation in the health home program.

Maine's first health home program for persons with chronic conditions (Stage A) has had a turbulent experience, from first-year implementation challenges to second-year care coordination challenges brought about by the implementation of the

behavioral health home (BHH) program. Also known as the Stage B health home, the BHH program is designed for eligible adults with SPMI and children with SED. To help providers determine which program is more appropriate for individual enrollees (members can be enrolled in only one of the programs), the state changed the mental health eligibility definitions mid-way through the eight-quarter enhanced match period. Because many beneficiaries have both physical and mental health conditions, existence of the two health home programs has become a point of contention and confusion for providers and has generated concerns about duplication of services for CMS and the state. This issue is discussed further in the Integration of physical and behavioral health section. Although an evaluation of the effectiveness of the program has not been completed, some community care teams (CCTs) report promising trends in outcomes, utilization, and costs in their own data collections and analyses. The Maine legislature, however, funded only 50% of the program costs going forward. At the time of our interview, state officials were exploring options for funding the other half of the program, and determining what adjustments, if any, need to be made to secure the future of Maine health homes.

V. STATE EVALUTION ACTIVITIES

The period examined in this report is marked by remarkable changes in the health care landscape. These include implementation of the Medicaid expansion and other ACA payment and delivery system provisions, such as Medicare penalties for hospitals with high avoidable readmission rates,[20] and other federal and state delivery and payment system initiatives designed to achieve the triple aim--better care, better health, and lower costs (Table 2). Our analysis spans the period from October 1, 2011, when the first programs became effective, through December 31, 2014, when the last group of states in our evaluation completed their eight-quarter intervention periods. Many providers we interviewed have participated in multiple initiatives and pilots overlapping with the health home program during that period. In particular, every state in our evaluation has implemented Medicaid primary care PCMH models, which share some fundamental attributes with the health home model. The various concurrent initiatives make it difficult to isolate health home effects.

Each SPA describes how the state will collect information from health home providers to determine the effect of the program, but not all states have undertaken data collection and analysis activities or conducted self-evaluation studies. In most states, evaluation of program impacts on utilization and costs is just beginning, although a few have preliminary or interim results for other aspects of programs, such as enrollee experience and implementation. Providers and state officials also reported positive outcomes based on anecdotal evidence.

Three states (Oregon, Rhode Island, and North Carolina) did not conduct internal evaluations of utilization and costs in their programs.

Oregon examined outcomes for the full patient population in PCPCHs versus other practices in 2012, the first full calendar year following health home implementation, but did not evaluate outcomes specifically for health home enrollees in its PCPCHs.[21] Positive findings for the full patient population were increased use of preventive services and decreased specialty care visits. The report noted that pharmacy utilization also fell, but that the reduction was not clearly a positive outcome, since it could reflect either better prescribing practices or lower adherence by patients. No statistically significant decreases were found in emergency department or inpatient hospital use or overall spending.

Rhode Island collected no data to evaluate the impacts from either of its two health home programs over the period of enhanced match. For the mental health program, the state did not begin a uniform data collection until 2014, after the enhanced match period had ended. With a baseline established, the state hopes to be able to properly evaluate impacts of the health home program for beneficiaries with SPMI going forward. The mental health program conducted surveys to assess provider and patient experience

with the program, and the CYSHCN health home program also has conducted consumer surveys. Results are not yet available.

North Carolina provided first-year tabulations for health home enrollees other than duals on health home metrics as defined in its SPA for four overlapping one-year periods ending in December 2011, and in March, June, and September of 2012. The data suggested a downward trend in PMPM rates of hospital readmissions and emergency department visits, as well as PMPM costs, but the state indicated that the data have never been further analyzed or published, in part because of budget constraints. North Carolina changed its Medicaid claims processor in July 2014, which caused data losses and delays and hindered the state's overall data collection and reporting capabilities.

In the remainder of this section, we briefly summarize evaluation activities and findings for the subset of states that have undertaken at least preliminary or interim evaluation activities. Early results generally appear to indicate that the health home program is improving care for patients and, in some cases, having desired impacts on utilization and costs. Three states (Missouri, Iowa, and Ohio) have published evaluation reports, and five others (Alabama, Idaho, New York, Maine, and Wisconsin) have reports that have not yet been finalized and released or have data analysis in process.

Three general issues are important to keep in mind for assessments of health home impacts. First, as noted, it is very difficult and sometimes impossible to separate health home-specific effects from the effects of other initiatives and delivery system changes occurring at the same time. Second, results available to date are from periods early in the programs--sometimes very early--when implementation was far from complete. Third, 11 of the 13 programs include persons dually eligible for Medicare, ranging from 11% to nearly half of health home enrollees, depending on the program, but all evaluation activities to date have been based solely on Medicaid data. No state reported including Medicare data either in determining health home-eligibility for dually eligible persons or in evaluations of utilization and costs. As a result, an unknown number of duals likely were missed by the selection process. Even for duals included in health homes, an important share of costs and utilization is missing because Medicare is the first payer for most services used by these beneficiaries. Missouri discussed this omission in its 18-month evaluation of its CMHC health homes, noting that the almost half of the participants with at least nine months of health home enrollment included in its analyses were duals.[22] These individuals accounted for substantial savings to the Medicaid program but overall utilization and costs for these enrollees was unknown.

Patient-Centered Medical Home and Extensions

Missouri was the first state to publish impacts of its health home programs. A preliminary evaluation of the Missouri primary care health homes examining one year of data showed a 5.9% reduction in hospital admissions per 1,000 enrollees and a 9.7% reduction in emergency department use per 1,000 enrollees, relative to the year prior to

enrollment. Estimated hospital cost savings for the state Medicaid program were more than $5.7 million.[23] Analysis of total costs for all services used by those enrolled for at least nine months indicated first-year savings of about $148 PMPM net of the $60 PMPM for health home services, for total savings of about $2 million. The evaluation also found significant improvements in blood sugar, cholesterol, and blood pressure levels among enrollees, relative to the baseline period.

An evaluation of the first 18 months of the Iowa health home program conducted by the University of Iowa Public Policy Center found tentative evidence of decreased emergency department use for some health home enrollees, and estimated overall program cost savings of about $9.0 million, or nearly 20%.[24]

Idaho contracted for an independent evaluation of its health home program. At the time of this report the state was expecting to release results soon. Preliminary data suggests the program has been successful in reducing rates of emergency department visits and hospitalizations and lowering costs. The state also uses a PCMH assessment[25] tool to evaluate clinics' "medical homeness." Providers self-report on their progress bi-annually along eight dimensions of care, including team-based relationships, patient-centered interactions, quality improvement strategy, and care coordination. The state told us that over a 24-month period, health home providers reported increasingly higher scores in all categories of care.

Specialty Provider-Based Programs

Preliminary evaluation results for the Missouri mental health program were qualitatively similar to those of the state's primary care program. Analyses indicated a 12.8% reduction in hospital admissions per 1,000 enrollees and an 8.2% reduction in emergency department use per 1,000 enrollees over a one year period for health home enrollees, relative to the year prior to enrollment, amounting to an estimated $2.9 million in hospital cost savings.[26] Total savings across all services for about 6,000 CMHC health home enrollees who were not dually eligible were $33 PMPM above the $79 PMPM for health home services, for a total Medicaid savings of about $2.4 million relative to the year prior to enrollment. Steady improvement also was seen in clinical outcome measures, including diabetes control, cholesterol control among enrollees with heart disease, and hypertension control.

Ohio contracted with a firm also providing technical assistance to health home providers to conduct a baseline analysis of its health home program for persons with serious mental illness (SMI). The analysis compared health home performance measures with national Medicaid 2013 Healthcare Effectiveness Data and Information Set benchmarks and examined program costs for a one-year baseline period ending three months before the program's October 1, 2012, effective date and a one-year follow-up period that began three months after the effective date.[27] Health homes individually and as a group scored well relative to national benchmarks with respect to initiation and engagement for alcohol and other drug dependence treatment and adult

access to preventive/ambulatory services, but poorly as a group on physical health care measures including cholesterol management for enrollees with cardiovascular conditions, cholesterol screening and control, and diabetes control, although some individual health homes compared more favorably. The evaluation report also included an analysis of changes in costs for health home enrollees in a one-year period after program start relative to a one-year period prior to program start. To control for changes not associated with the program, the analysis examined the difference in cost changes for health home enrollees relative to those for a matched comparison group. The analysis found that health home enrollment was associated with a $561 PMPM overall increase in Medicaid program costs. Significantly higher costs were found for each category of service examined, but nearly 75% of the overall increase was attributable to the $333 average monthly case rate for delivering health home services and a $74 increase in pharmacy costs.

Wisconsin's evaluation efforts are not yet publicly available, but results indicate positive outcomes for 2013, the first full calendar year of health home program operation, compared with 2012.[28] The work highlights the methodological challenges of confident assessment of impacts for a program focusing on a single, relatively low prevalence condition (HIV/AIDS) with few enrollees--150 as of the end of the evaluation period, 188 total--and using a single health home provider, ARCW, which had been serving roughly half the target population for some time. Comparisons were persons with no experience with ARCW. Findings were that costs, hospital use and chronic disease diagnoses were lower for those with longer exposure to the health home provider.

Care Management Networks

New York developed the Health Home Care Management Assessment Reporting Tool to collect standardized care management data for Medicaid members enrolled in health homes. These data will enable the state to evaluate the volume and type of interventions and the impact health home services have on outcomes for enrollees. Although the state has confirmed that collected data is being analyzed, no reports have been released. State officials told us that preliminary analyses show only minor effects of the health home program on emergency department visits and inpatient utilization. Independent studies have examined implementation and aspects of program design. A United Hospital Fund report summarized early experiences with health home implementation,[29] and the New York State Health Foundation has supported two reports describing enrollment outreach and care management practices.[30]

Alabama shared preliminary results from an evaluation that has not been finalized and officially made public but which shows downward trends in emergency department use, hospitalizations, and costs.

Maine supported a first-year report assessing early implementation experience and providing baseline quality, utilization and cost data for health home enrollees and a

comparison group with similar chronic conditions, prepared by researchers in the Muskie School at the University of Southern Maine.[31] According to state officials, researchers will begin evaluating health home effects as additional years of data become available.

VI. HEALTH HOME IMPACTS ON DELIVERY OF CARE

To improve care quality and reduce inappropriate emergency department use and hospital admissions, the law requires health homes to provide comprehensive care management and coordination, including transitional care to reduce avoidable readmissions to hospitals, support services for the enrollee and family, and linkages to nonclinical supports in the community. Health homes are also encouraged to use HIT to facilitate care coordination and the integration of services, as feasible and appropriate. In our previous report, we describe in detail what each of these services entails and how health homes in our evaluation states have handled these requirements.[32] In this report, we focus on informant perceptions of the impact of the required services on delivery of care. Has the extent to which providers are able to coordinate care, integrate physical and behavioral/mental health services, and follow-up with a patient after hospitalization or emergency department visit changed in any way since the inception of health homes? Are patients more connected to services they need and engaged in their care, and have their health outcomes improved as a result? Informant perceptions should be interpreted with caution because they are based on retrospective reflections on improvements in the first two years of program operation, which are sometimes difficult to disentangle from improvements associated with concurrent initiatives and demonstrations.

Although evaluations undertaken by several states have shown promising results, in general, states and individual providers have not amassed enough data to reach firm conclusions about impacts of the program on utilization of services and health outcomes. Few have monitored and measured trends in areas such as care coordination or access to community-based support. Therefore, the information presented here is largely anecdotal, based on informant impressions of changes taking place in the delivery system, which may or may not be attributable to the health home program. Almost universally, state officials and providers believe they have seen improvements in the care enrolled members are receiving because of changes made through health homes and other delivery system reforms. In regards to care coordination, integration of behavioral and physical health, and member engagement, our informants felt health homes were making continuous improvements. Transitional care seems to be an area of continuing concern, with some health home programs reporting positive changes and others feeling less confident about improvements. While most health homes felt member access to nonclinical services has improved during the course of the program, few were able to comment on any changes related to access to LTSS or, often, the proportion of their panel in need of them.

Care Coordination

Most health homes reported improvement in care coordination, but qualified their responses as anecdotal because data was not available to support this observation. Pre-existing and concurrent initiatives, especially PCMHs, made attributing improvement solely to the health homes program difficult. The use of multidisciplinary care teams was broadly recognized as the most important change to emerge from health homes. Including pharmacists, social workers, mental health professionals, and other disciplines as needed on care teams was viewed by many respondents as an effective way to accomplish a whole-person approach and improve the coordination of care for members. Care team meetings, monthly calls, case conferencing, care plans, and referral tracking were considered helpful tools for care teams. One notable way that care coordination was fostered was through the PMPM payment, which allowed coordinators to engage in activities essential to their patient's care that are not billable in a FFS structure, such as case conferencing.

BOX 1: Quick Note

A Rhode Island health home for beneficiaries with SMI created a "quick note" form in their EHRs to document care coordination in a simple way. Quick notes are easily available to all health home team members, including physicians.

Educating both internal and external clinical and nonclinical providers about health homes, building trust, and developing relationships and communication arrangements with external providers in the community were considered by many as crucial to effective care coordination. The emphasis on care coordination and collaboration across disciplines helped educate primary care and behavioral health staff on how to better work with each other and provided awareness of each other's roles in their patients' care. An increasing focus on data and electronic communication improved care coordination in areas where health homes were able to get timely notifications from hospitals and emergency departments. For example, MO HealthNet, Missouri's Medicaid agency, sends health homes daily notifications of emergency department visits and uses its prior authorization tool to inform providers about upcoming Medicaid hospitalizations for enrollees other than duals. Health homes closely affiliated with or owned by hospital systems had an easier time with patient data exchange, which helped facilitate care coordination. Even when data exchange was not optimal, some health homes reported improved communications with hospitals and other providers as a result of strengthened relationships fostered by a focus on care coordination.

Idaho providers found the care management and coordination requirements to be particularly beneficial features of the health home design for their patients. State officials reported that the clinical quality measures reporting by providers and technical assistance have gone well. As part of the PCMH Collaborative, the state provided technical assistance to help providers enhance their electronic health record (EHR) use and develop disease registries. Activities included webinars, learning collaboratives, and quality improvement specialists to provide hands-on support to clinics. One provider, however, reported that while HIT technical assistance was helpful

conceptually, more specific assistance was needed on how to create care plans or generate reports with the specific software the practice was using. Care plans the provider was able to develop from existing software using the state's list of minimum requirements were not considered very useful, and the health home teams were not referring to them in their daily work. Vendor training to assist with creating the needed documents was seen as variable in quality and usefulness and often very expensive.

In Maine, informants identified the care management system the state developed with implementation of CCTs as a particularly successful feature of the program, providing a crucial resource for primary care practices and linkages to a comprehensive array of clinical and nonclinical services for the highest-need patients. This care system allowed for a development of new relationships and connections among previously separate provider systems and contributed to greater collaboration and coordination of care. The state is working on further HIT infrastructure development to improve access to data and information flow to sustain and advance these cross-organizational connections.

Informants also identified factors that limited health homes' ability to provide robust care coordination. One such barrier was a degree of overlap between coordinators (e.g., from the health home program, managed care plan, hospital) and confusion over roles in a few states, although many areas reported improvement over time as providers improved communication and sorted out their respective roles. Difficulty accessing, sending and receiving patient information and data posed another challenge to care coordination. Availability of and access to EHRs within and across providers, which allows for population management and identification of gaps in care, were also viewed as important but often missing pieces in enhancing care coordination activities. Integrating behavioral health was seen as a good way to improve care coordination, but the challenges in accomplishing integration were cited as a barrier to effective coordination.

Integration of Physical and Behavioral Health

Overall, most informants believe the integration of behavioral and physical health improved as a result of health homes, although for some providers, the health home program was seen as simply enhancing the focus on care integration activities that were already in place. The importance placed on integration by the program and the structure of many states' health home designs prompted providers to increase their efforts to integrate care and sometimes provided resources to do so. One BHH provider summarized the increasing focus on and importance of integrating physical health: "In many ways, health homes are the completion of de-institutionalization. We've transferred people to communities, but the health part didn't take on the seriousness that it deserved."

BOX 2: Billing Codes for Integration

Missouri's Medicaid program made available new billing codes for health home providers to facilitate greater integration of physical and behavioral health services. CMHC health homes can get reimbursed for brief interventions for management of physical health conditions provided to any Medicaid beneficiary, not just those enrolled in the health home program. Primary care health homes can bill for transitioning patients to community health workers and for substance abuse screening and intervention.

The following features helped to create pathways and systems for integration: (1) shared electronic medical records between behavioral and physical health providers; (2) embedded mental health professionals in primary care and primary care consultants in mental health clinics; (3) depression and substance abuse screenings in primary care; and (4) co-location of behavioral and physical care within a building or clinic (Table 3). Providers also adopted new behaviors, including focus on a warm handoff model, inter-disciplinary case conferencing, shared visits, embedding care managers in practices, improved education on physical health for behavioral providers (and vice versa), and strengthened relationships between providers through ongoing communication.

TABLE 3. Physical and Behavioral/Mental Health Care Integration Models in Health Homes

State	Share of Health Home Providers with Co-located Physical and Behavioral Health Services	Share of Health Home Providers with Contractual Agreements that Support Care Integration
Patient-Centered Medical Homes and Extensions		
Oregon	46%	65%
Missouri (primary care)	100%	33%
Iowa	Unknown	Unknown
Idaho	66%	Unknown
Specialty Provider-Based		
Rhode Island (CYSHCN)	100%	N/A
Rhode Island (mental health)	38%	13%
Missouri (mental health)	Unknown	Unknown
Ohio	100%	N/A
Wisconsin	100%	100%
Care Management Networks		
North Carolina	N/A	Unknown
New York	Unknown	Unknown
Alabama	N/A	100%
Maine	67%	54%

SOURCE: Information obtained from interviews with state informants (April - July 2015).

Sharing behavioral health information is logistically difficult, given stringent regulations and a culture of intense sensitivity to the privacy of behavioral health records. This made it difficult for some providers to send and access the information they needed to most effectively integrate care for health home members. Accordingly, and because of other logistical difficulties, some providers said they would have liked better guidance on how to integrate care. Lack of reimbursement for nonhealth home providers to share progress notes and otherwise coordinate with health homes was identified as another barrier to comprehensive integration. Some nonhealth home

providers may not have enough incentive to pick up a phone or fax patient records to health homes if this activity is not reimbursable.

In Maine, concern about duplication of services between CCTs and BHHs was an ongoing issue in the provision and integration of care. CCTs felt better suited to provide short-term, holistic interventions to high-need patients, many of whom have mental health conditions. The rollout of the BHH program, however, placed all beneficiaries with SMI in BHHs where CCTs cannot serve them. The requirement that a beneficiary cannot be enrolled in both programs created another layer of administrative burden for providers who must verify the proper health home placement for every new enrollee before they serve them, or risk not getting reimbursed for services if an enrollee is already enrolled in a BHH. Some informants in Maine felt the two separate systems may actually silo care rather than integrate it.

Missouri's primary care health home providers cited the behavioral health integration requirement as a crucial element of the program that seems to be effective in reducing emergency department visit rates. On the mental health side, both state officials and providers expressed satisfaction with infrastructure development and data analytics capabilities that have allowed the health homes to run smoothly. Another successful feature of the mental health program highlighted by state officials is the establishment of a centralized team at the state-level to provide oversight, guidance, and technical assistance to providers, which they say has allowed the state to continue to improve and grow the program.

Care Transitions

Ensuring continuity of care and assisting enrollees in transitions from one type of care setting to another continues to be an area of intense focus and ongoing work for all programs in our evaluation. Many providers believe an increased focus on follow up and readmission prevention and new staff roles addressing these goals have improved their ability to provide effective transitional care. However, any improvements in rates of timely follow-up after member hospitalization or emergency department visit are closely tied to a health home's ability to obtain a notification of admission in a timely manner. While some health homes struggled to get timely notification for all their patients, some had established lines of communication with the major hospitals or managed care organizations (MCOs) in their area and were able to get accurate and rapid information for at least some patients through secure email, phone calls, or fax. In some states (e.g., Missouri, Rhode Island), the state Medicaid agency supplied providers with nearly real-time notifications of Medicaid hospital admissions and emergency development visits. As discussed in our previous report,[33] obtaining notifications and patient data for Medicare enrollees was more of a challenge for health homes, and informants reported no major improvements in this area. One Idaho provider indicated that new Medicare transition management billing codes available since 2014 have helped facilitate transitions for dually eligible health home enrollees, but no other informants mentioned the new codes or any related improvements.

Maine was successful in leveraging its health information exchange (HIE), HealthInfoNet (or HIN), to implement notification systems. Few other states continued to work on developing infrastructure to facilitate hospital notifications. New York is building a new dashboard tool that will allow providers to monitor outpatient appointments after a hospital discharge and close the loop on follow-up. Iowa is planning to use funds from its SIM implementation grant to develop a statewide event notification system that will supply providers with real-time notifications of a hospital admission or discharge.

Some health homes created new roles for hospital coordinators, while others were considering ways to improve transitional care or already had implemented changes. Rhode Island CHMO health homes had liaisons in psychiatric hospitals to facilitate transitions of their patients. In Iowa, one provider said that while follow-up and transitional care coordination for health home enrollees was working well, adding a staff member focused solely on reviewing hospital discharges to identify others potentially qualified for the program based on their conditions and utilization patterns would be beneficial. In Alabama, both providers and state officials spoke highly of the effects of health home transitional care program, which evolved from having a single nurse visit hospitalized health home members to including a social worker and pharmacist in the transitional team, conducting hospital visits, and assisting patients with discharge and follow-up after hospitalization. Expanding the transitional care team made it possible better identify and address all the needs of patients while in the hospital and during the post-discharge period.

Few states tracked whether health home members received timely follow-up after an inpatient facility stay or emergency department visit. In cases where health homes were able to receive notifications of a hospital event, providers reported making significant strides in timely follow-up, which was defined as occurring at periods ranging from 24 hours to two weeks after discharge, depending on the state. Another challenge to timely follow-up after a hospital event, even though much less significant, was not being able to reach a patient via phone or at home.

Access to Nonclinical Social Services and Supports and Long-Term Care

The whole-person approach of the health home model has brought about new, or in some cases enhanced, attention to patients' socio-economic needs, such as housing, nutrition, vocational training, and transportation. Most providers in our evaluation states reported significant growth in their ability to connect patients to nonclinical social services and supports. The exception are specialized types of providers, such as CMHCs, home health agencies, or FQHCs, which have traditionally provided or linked patients to these types of services and therefore saw limited to no impact of the health home program in this area.

Health homes typically use care coordinators, social workers, and community support workers to coordinate nonclinical services and connect health home members to community-based resources. In Idaho, health homes connected patients to services and supports by referring them to navigators, who are paid by Medicaid and available in every region of the state. A shortage of community services and resources was a problem in some remote and rural areas. Availability of reliable transportation services and affordable housing units were commonly identified as the highest areas of need for health home members and often most challenging for providers to meet.

BOX 3: Creative Money

In Maine, CCTs have the ability to set aside a part of their budgets to subsidize a variety of supports and services to members who need them, such as taxi vouchers, medical equipment, and gym memberships. One CCT calls these funds "creative money."

Few interviewees knew exactly how many of their patients needed long-term care services and supports, though it generally seems to be a relatively small proportion of all heath home enrollees, or attributed any improvement in enrollee access to these services to health homes. Health home providers reported they were providing referrals and access to these services prior to heath homes. Respondents generally said that health homes are able to assess need, refer patients to services, and help coordinate long-term care and services for those health home enrollees who need them. Missouri officials reported increased home and community-based services costs for health home enrollees in the state's primary care health home, which they attributed to greater focus on referrals and possibly increased utilization of more intensive and therefore expensive services, such as personal in-home care.

Enrollee Engagement and Experience

Important tenets of health homes are patient-centered care and enrollee engagement. The importance placed on patient education and requirements for a patient-driven care plan motivated providers to adopt new strategies, such as motivational interviewing, increased patient education, and an emphasis on patient-directed goal setting and shared decision-making. In general, providers and state officials felt that efforts to better inform and involve patients in their care have increased some enrollees' ability to better manage their conditions and advocate for themselves. Greater face-to-face and telephone contact between the care team or care coordinator and the enrollee seemed to promote engagement. In Idaho and Wisconsin, health home providers reported that patient portals had contributed to greater empowerment and engagement among enrollees. A few providers noted that managing care persons with behavioral/mental health conditions had its own set of challenges and it often took more time and effort to build trust and engage these enrollees in the program. One provider said that health home services for children created a unique challenge because of the need to involve parents in directing the child's care, which can make it harder to get everyone on the same page.

Many providers we spoke with have collected and tracked their own data and reported positive trends in preventive screenings rates, immunizations, HbA1c levels, blood pressure, cholesterol readings, medication adherence, and other clinical measures. Some providers mentioned seeing better outcomes for members continuously enrolled over a longer period of time as opposed to those exposed to the program short-term or intermittently. The same seems to be true for patients who are highly motivated to improve their health and active participants in their care. One provider speculated that the program is bound to have a greater impact on a complex, chronically ill patient with lots of needs and gaps in care than on a patient with the same condition whose care is better managed.

Provider Perceptions of Program Impacts

Many health home providers have been conducting their own data collection and program monitoring, but most had little access to data and limited analytic capabilities to objectively evaluate impacts of the program. However, the majority of providers we interviewed offered anecdotal stories about the positive differences health homes services were making in the lives of enrollees. Providers in our evaluation states seem to see benefits of health homes for their patients and are largely supportive of the model as a way to improve care and outcomes for populations with complex health and social needs, even in instances where cost savings may not have been achieved.

Many providers cautioned about rushing to conclusions about the effectiveness of the program from looking solely at utilization and cost data. As one informant said, health home providers were often “building the plane while flying it,” implementing the program, learning new processes, and establishing relationships with other clinical and nonclinical providers in the community while simultaneously caring for patients. In many cases, providers are still working out the kinks in key required program elements, such as care integration and care transitions. Thus, most programs were not fully operational throughout the entire two-year intervention period, and the results should be interpreted with this in mind. Providers emphasized that in assessing the program, state officials and policymakers should take into account variation across providers in readiness to function as a fully realized health home, as well as geographical differences in infrastructure and resources available and populations served in different communities.

With many states participating in multiple pilots and demonstration projects simultaneously with health homes, it was difficult for providers to identify health home program-specific impacts. For example, many Idaho health home providers also participated in the state’s Medicaid Medical Home Multi-payer Pilot,[34] which launched simultaneously with the health home program and aligned its objectives closely with health homes. With Medicaid being by far the largest payer in the pilot, providers noted significant improvements in unnecessary utilization, resulting in lower PMPM costs, but were not certain of the extent to which these results could be attributed to the medical home pilot or the health home program. Providers in North Carolina also participated in

multiple simultaneous demonstrations (e.g., the Multi-payer Advanced Primary Care Practice [MAPCP] Demonstration) and were unable to distinguish specific impacts of one program or another. In Oregon, providers participating in the PCPCH initiative have been making changes in how they deliver services to all their patients, not just those specifically identified as health home members. Across the board, however, providers felt these projects enabled them to deliver more preventive and better quality care to their patients.

In Alabama, providers were enthusiastic about improving outcomes for their population, as evidenced by the preliminary data showing significant reductions in hospitalization rates, emergency department visits, and costs. The Iowa health home providers that we interviewed also highly appreciated the benefits of the program for their members, reporting more engaged patients who use emergency department and hospital services less frequently. One Iowa provider said that despite having more complex conditions, health home patients are achieving outcomes that are as good as or better than those for nonhealth home patients being served at the clinic.

Maine's CCTs, who provide care coordination services to the top 5% of high service utilizers enrolled in health homes, reported seeing the positive impacts their services have on their complex-need patients, including better self-management, treatment adherence, and lower utilization of emergency and hospital services. Some CCTs who have analyzed their own data reported finding reductions of up to 50% in emergency department visits and hospital stays.

Both of Missouri's health home programs demonstrated significant effects on patient outcomes, utilization of services, and costs. Providers in general reported seeing positive impacts on their clients' health from improved care management and coordination. In New York, health home providers were largely not privy to data the state has been collecting to evaluate impacts of the health home program. Generally, providers felt their clients have better access to necessary services and are happy with the level of care they are getting, based on the number of referrals of new patients to health homes by existing health home members.

Despite the early evaluation results for costs discussed above, Ohio health home providers that we spoke with were particularly happy with improvements in chronic disease management for their clients with SMI, and reported results such as lower BMI and blood pressure, improving HbA1c levels, and greater access to primary care. Similarly, Rhode Island's mental health providers felt that the health home program made them more attentive to clients' physical health needs and reported improvements in identifying chronic health conditions and referring patients to appropriate clinical services. Rhode Island's CEDARR health homes for children with special needs also noted improved communication and coordination with PCPs, including more focus on preventive care and better rates of follow-up after hospitalizations. The Wisconsin health home provider credited the program with bringing about greater rates of depression screening, diagnosis, and treatment among its clients with HIV/AIDS.

Unexpected Outcomes

We asked both providers and state officials whether there were any unexpected outcomes or unintended consequences resulting from the health home program. The responses varied greatly based on each individual informant's experience, expectations, and perceptions. Often, providers and state officials told us what surprised them about the program, such as the high level of behavioral and social needs revealed in their patient population by applying a whole-person care approach, or unexpected challenges faced in program implementation, such as obtaining buy-in from other providers, reporting measures, data collection, access to patient information and hospital notifications.

One inadvertent impact that can be categorized as an unexpected outcome is the effect on Stage A health home providers of the implementation of the Stage B BHHs in Maine. Stage A health home providers saw their enrollment decline as some of their patients qualified for the BHH. Also in Maine, the structure of the health home payment, with CCTs being paid for managing only the highest-need 5% of patients instead of an entire clinic panel, caused financial concerns. CCTs may spend significant time establishing relationships and referral procedures with primary care clinics but are compensated for the work only if the clinics refer patients to them.

An unintended consequence that New York is addressing relates to its payment structure. Initial health home payment rates were based and stratified solely on Medicaid claims data. Claims-based rates did not take into account beneficiary's functional limitations and factors such as mental illness and lack of stable housing that may be associated with higher need than is reflected in medical claims. As a result, providers were inadequately reimbursed for care they provided to these complex, high-need patients. Recognizing this problem, the state is redesigning its health home payment model to include the functional limitations and other considerations, described in more detail in the "Insights from the field" section below.

State officials administering the Rhode Island mental health program found that heightened focus on physical health of patients may have taken more attention and resources away from psychiatric care than expected or intended. The state and providers will be working on more comprehensive integration of the two realms of care going forward.

VII. USE OF HEALTH INFORMATION TECHNOLOGY AND DATA ANALYTICS

One requirement placed on health homes is the use of HIT to coordinate and integrate services, "as feasible and appropriate." Despite the important role that robust HIT and exchange could play in facilitating the comprehensive care model envisioned in health homes, the language of the statute is vague and broad, recognizing that HIT systems were in at best developmental stages in many states. More stringent requirements would have had a significant dampening effect on state take up of the option and on the number and types of providers who could participate. In our previous report,[35] we found that our evaluation states differ considerably in the available HIT infrastructure, requirements for participating providers, and technical and financial assistance offered. Even in states where HIT is relatively widespread, there is considerable variation among individual providers in the extent to which they use HIT.

Population-based health care uses data systems, such as registries, to track care and monitor health status over time to assess patients' needs and improvements. To a large extent, health home providers we spoke to in 2014 were actively engaged in tracking and monitoring their whole patient panel, and particularly high-risk patients. Most providers that we spoke with in 2014 were generating their own patient reports and also receiving patient utilization data from the state, though the utility of state-furnished reports was variable.

In this report, we focus on whether the health home program had any effect on the spread and use of technology and utilization of health data among participating providers. Many states established HIT requirements for providers participating in their health homes programs. For example, Iowa, Maine, Missouri, New York, Ohio, and Wisconsin require that health homes have and use EHRs. On balance, informants did not attribute improvements in HIT use and capacity directly to the health home program. Many HIT initiatives and grants have or are being implemented alongside the health home program in the 11 states included in our evaluation (e.g., the Office of the National Coordinator for Health Information Technology's Beacon grants, the HITECH programs).

However, state officials and providers alike agree that the use of HIT and data analytics is still a work in progress that requires attention, investment, education and training, and time to fully develop. Table 4 provides a status update of the capacity for and use of HIT among states included in our evaluation.

TABLE 4. HIT Use and HIE in Evaluation States at the End of the Health Home Intervention Period				
State	**HIT Requirements**	**Share of Health Home Providers Using EHR**	**Share of Health Home Providers Connected to HIE**	**Share of Health Home Providers Receiving Electronic Notifications from Hospitals**
Patient-Centered Medical Homes and Extensions				
Oregon	Use of EHR not required	81%	83%	61%
Missouri (primary care)	Use of EHR required	100%	Unknown	100%
Iowa	Use of EHR required. Participation in the state HIE required.	100%	Unknown	Unknown
Idaho	Use of EHR not required. Providers must use HIT for: (1) systematic follow-up on a patient's care; (2) population management; and (3) access to and use of HIE.	100%	77%	44%
Specialty Provider-Based				
Rhode Island (CYSHCN)	Use of EHR not required.	50%	100%	0
Rhode Island (mental health)	Use of EHR not required.	100%	100%	Unknown
Missouri (mental health)	Use of EHR required.	100%	Unknown	100%
Ohio	Use of EHR required, phased in over 2 years; Participation in the state HIE required when available.	100%	Unknown	Unknown
Wisconsin	Use of EHR required	100%	100%	100%
Care Management Networks				
North Carolina	Use of EHR not required.	68%	11%	Unknown
New York	Use of EHR required within 18 months of becoming a health home. Participation in the regional HIE required.	100%	100%[a]	Unknown
Alabama	Use of EHR and continuity of care document not required. Providers who receive HITECH EHR incentive payments are required to connect the state HIE when available.	56%	9%	Unknown
Maine	Use of EHR required.	100%	Unknown	Unknown

SOURCE: Information obtained from review of Health Home SPAs approved by CMS and interviews with state informants.

a. All health homes have attested to connectivity to their Regional Health Information Organization.

Changes in Provider Use of Health Information Technology and Data Analytics

At least one respondent (i.e., a provider, state official, or provider association representative) in ten out of the 11 states in our evaluation--Alabama, Iowa, Idaho, Maine, Missouri, New York, Ohio, Oregon, Rhode Island, and Wisconsin--reported an

increase in the use of HIT either generally or specifically among health home providers since the start of their health home program. A minority of those states reported significant changes taking place, although as mentioned above, improvements were not attributed solely to the implementation of the health home program. Changes ranged from small increases in EHR adoption rates among providers (e.g., Alabama) to more significant changes including large increases in EHR adoption rates among providers (e.g., Rhode Island), provider transitions to more sophisticated EHR platforms (e.g., Oregon), and growth in HIE capacity (e.g., Maine and New York). Specific HIE-related changes include the introduction or greater use of provider and patient portals (e.g., Iowa, Idaho, Ohio, and Wisconsin) and hospital notification systems (e.g., Maine) and new provider connections to state or regional HIEs (e.g., Maine). Some providers we spoke with were still relying on faxes and telephonic calls to exchange health information with other providers (e.g., Alabama, Iowa, Idaho, Maine, and Rhode Island).

BOX 4: Oregon's HIT Infrastructure

Health home providers were encouraged to develop or use their current HIT capacity to perform a range of functions, including EHR use and data gathering and reporting. Oregon also links certain PCPCH measures to HIT capacity. For example, implementation of an EHR is not required, but providers who have an EHR can earn additional points towards their qualification as a Tier 3 PCPCH. The state also maintains a provider portal and patient panel management system. Use of this system is required as part of the provider's service provision, but it also allows the provider to review data on their patient panel and identify any gaps in care.

Progress in expanding the use of data analytics is also mixed. At least one respondent (i.e., a provider, state official, or provider association representative) in six out of 11 states in our evaluation--Alabama, Idaho, Missouri, Ohio, Oregon, and Rhode Island--cited anecdotal evidence of improvement in the use of data analytics among health home providers since the start of their health home program. The most commonly cited activities were generating cost, quality, and utilization reports for health home use (e.g., Alabama, Iowa, Maine, Missouri, and Ohio) and using data registries (e.g., Idaho and Missouri).

Ohio providers and state officials agreed that implementation of a robust outcomes data collection was a successful feature of the health home program, although one provider complained about the lack of direction and guidance from the state in terms of how to monitor and report the data in a standardized way. Looking back, state officials agreed that perhaps too many outcomes measures were required, taking providers in many different directions, and that the program could have benefited from collecting a more focused set of measures.

Barriers to Greater Use of Health Information Technology and Data Analytics

Providers and state officials cited a wide range of barriers to expanding use of HIT, particularly with respect to improving HIE capacity and engagement from providers.

Challenges to expanding HIE capacity include the cost and limits of the technology needed to engage in HIE as well as the cost of establishing and maintaining a connection with state and regional HIEs, use of different EHR platforms among providers in a community, misconceptions about federal and state health information privacy laws and regulations, lack of resources to provide technical assistance to providers, patient resistance to using portals (e.g., too much work for patients to log onto a portal), and workflow issues (e.g., formatting is difficult to use).

BOX 5: Maine's HIT Infrastructure

Maine requires all health homes to have a fully implemented EHR. Many of the providers are already participating in the MaineCare HIT incentive program and the state's tele-health laws provide incentives for the use of remote monitoring and other technologies. The HIT infrastructure varies across communities. Some CCTs and practices share an EHR, or have negotiated agreements that allow CCTs to use the practice's EHR. In other cases, CCTs and practices use the state's HIN. This exchange connects to more than 80% of Maine hospitals and almost half of primary care practices. HIN includes an enrollee portal, as well as a notification system to alert care managers when an assigned enrollee has visited the emergency department or been admitted to a hospital.

Challenges to engaging in data analytics include problems using the technology, difficulty getting physicians to use the reports and tools that have been developed, and the lack of baseline data for examining changes over time.

VIII. WHAT CONTRIBUTES TO HEALTH HOME PERFORMANCE?

Are there are any characteristics or attributes that make a clinic or another provider organization more successful as a health home? Or is it a particular organizational structure, resources available, geographic location, or any other internal or external circumstance that make a practice or a system function well as a health home? To answer these questions we asked state officials, provider associations, and consumer advocates to identify any particular providers or provider types in their state that, in their opinion, may have performed better as health homes than others. Responses varied considerably based on the state and locality, but across the board, attributes of successful providers identified were strong leadership and staff buy-in, well-developed infrastructure (including HIT), technical and financial resources needed to make necessary practice changes, and previous experience with patient-centered care management.

Factors Associated with Health Home Success

In states with medical home-like health home programs (Idaho, Iowa, Missouri [primary care program], and Oregon), FQHCs were the most frequently cited example of a well-performing health home. Many attributed FQHC's success to their particular type of organizational structure that includes administrative support and a team-based approach, including peripheral providers such as pharmacists and social workers. This infrastructure, along with previous experience in linking patients to nonclinical services, gives FQHCs an advantage when implementing the health home program and allows them to adopt the model relatively quickly and seamlessly.

Specialty provider-based programs in Missouri (mental health program), Ohio, Rhode Island, and Wisconsin have designated as health homes providers that have traditionally managed care of behavioral/mental health and special-needs populations and often have prior care coordination experience and well-developed linkages to community support services. The health home model's emphasis on integrating primary or behavioral/mental health services and transitional care brought about a new set of challenges for some of these providers, however. How successful they have been in overcoming these challenges relates largely to factors such as strong leadership, infrastructure, and resources listed in the introduction to this section. Generally, according to our informants in Missouri, Ohio, and Rhode Island, all specialty-based providers have done well and continuously improved as health homes, although some outperformed their peers in particular aspects of the model but struggled in other areas. Since Wisconsin designated only one provider organization as a health home provider, we did not pose this question to our state informants.

Health home programs in Alabama, Maine, New York, and North Carolina rely on care management networks, best described as care management entities that coordinate services among a variety of providers, including primary care, mental health care providers, specialists, hospitals, social services, and community support services. Typically, care management networks are formed for the sole purpose of coordinating services, and their success is largely dependent on how well they can build trust and establish relationships with both clinical and nonclinical provider organizations in the community. Care management networks in Alabama and North Carolina have all been performing well, and no network stands out in terms of their performance, according to state officials. In Maine, larger CCTs with more resources to staff up are generally considered well-running health homes, and CCTs based in home health agencies benefit from previous experience with conducting home visits and linking patients to needed clinical and nonclinical services and supports.

State officials in New York reported that how well providers perform as health homes seems to be related to their success in engaging and enrolling beneficiaries and the risk profile of their enrollees. For example, health homes that succeed in enrolling a large number of high-risk persons are likely to have worse outcomes relative to health homes with fewer high-risk enrollees. The state is working to understand the health home characteristics related to success in enrollment and to develop risk-adjustment methods that would improve the ability to compare outcomes across health homes.

Practice Transformation

How well providers perform as health homes is closely tied to their ability to adapt care delivery to meet additional requirements of the health home model and to the support and technical assistance they receive. In our evaluation states, even providers that were relatively well positioned to become health homes had to undertake some practice changes, infrastructure development, or both, in order to implement and fully realize the new model of care. Among the practice changes were training existing staff on new roles or adding new staff (e.g., care coordinator, behavioral health consultant, social worker), implementing new processes (e.g., needs assessment, screenings, care plan development, regular care team meetings, or case conferencing), and developing relationships and communication processes with other clinical and nonclinical providers (e.g., hospital systems, social services agencies). Technical and infrastructure development included obtaining required certifications (e.g., National Committee for Quality Assurance [NCQA] medical home recognition), collecting and reporting data and acquiring or upgrading HIT (e.g., EHRs, HIE, state electronic portals and care management platforms).

BOX 6: Medical Management Meetings

The Alabama health home program holds quarterly medical management meetings, where health home care managers meet with primary care physicians assigned to their networks to review latest outcomes data, discuss challenges, and highlight best practices. These meetings are regarded as highly productive in facilitating program implementation and practice transformation.

We asked our informants to assess how well providers have transformed their practices to become fully functional health homes; what resources, financial and otherwise, have been available to them to support practice transformation; and what, if any, practice transformation challenges still remain. For the most part, providers seem to have implemented all health home requirements, although almost every provider we spoke with admitted they are working to improve fundamental aspects of the health home model, including comprehensive care management and coordination, behavioral health integration, hospital transitions, and effective use of HIT to support their efforts. Practice transformation often involves considerable staff time and financial resources. In most cases, it has taken place at the same time as enrollment and treatment of health home-eligible patients, pulling providers in many different directions at once and slowing the pace of transformation. Therefore, the processes of transformation, growth, and refinement seem to be ongoing for most providers, even though the health home programs have been in existence for well over three years in some states.

BOX 7: Infrastructure Development Funds

New York has provided health home implementation grants to providers to support infrastructure development, made available from savings realized under its Medicaid Redesign Team initiative. More than $190 million will be distributed over three years, with the first add-on payments distributed to health home providers in March 2015 in the form of a quarterly check. Health homes may use these funds for HIT development, workforce training, health home promotion activities, and joint governance and technical assistance to provider partners. The state has also previously provided $15 million in HIT assistance specifically for health homes.

SOURCES: New York Department of Health. Health Home Development Fund Resources Use and Reporting Requirements https://www.health.ny.gov/health_care/medicaid/program/medicaid_health_homes/docs/03_23_15_development_funds.pdf ; Health Home Implementation Grants https://www.health.ny.gov/health_care/medicaid/program/medicaid_health_homes/hh_grants_announce.htm.

In Oregon, both providers and state officials highlighted the flexibility of provider requirements as one of the best design features of its PCPCH program, allowing the state to engage a broad array of practices of various sizes, capabilities, and technical infrastructure. Except for ten "must-pass" criteria which every provider must meet to be recognized at any level, providers are free to pick from a set of standards any number of measures they can meet in order to achieve a desired tier recognition.[36] The downside of this program flexibility is substantial variation in how providers deliver the required services. While some may only meet bare minimum criteria, others may be truly transformed, highly-functioning PCMHs.

Most providers say that the health home reimbursement has barely covered the costs associated with enhanced care management and coordination services they provide to health home patients, much less the costs associated with practice transformation. This is true particularly for those providers who had to undertake expensive changes required by states, such as obtaining NCQA recognition or implementing EHRs. Except in New York, the only state that made financial assistance available to providers specifically for practice transformation (see Box 7), state support to providers has been limited to providing program guidance and technical assistance (for more on technical assistance see our third-year report). Some providers noted, however, that as they progressively mastered the health home model of care, state-sponsored learning opportunities usually covering the basics of the program have become less and less relevant and that they could benefit from more advanced education and training. In a few states, providers were able to obtain foundation support for practice transformation. Despite these limitations, health home providers we interviewed during the course of this study have demonstrated strong commitment to the model and tenacity in overcoming implementation and transformation challenges to improve the care they deliver to their patients.

IX. INSIGHTS FROM STATE OFFICIALS AND PROVIDERS

We also solicited suggestions from informants for improvements that could be made to the designs of their state program and more general insights for CMS, other states, and providers. While some suggestions relate to what providers and officials believe could be improved in their own state's program, a number have broader application to issues of interest to CMS and officials and providers in other states developing or contemplating health homes. A theme that ran throughout the responses by providers was how the state could better support health homes, not only financially, but also through assistance with interactions with other parts of the health care system and payers. Informants in all states emphasized the strengths of the health home model and its value to enrollees. The largest number of suggestions fell into these categories: care coordination and care management, the care team approach, eligibility considerations, data availability and reporting infrastructure, payment system issues, duplication of services, and program structure and flexibility. Several informants stressed that both positive and negative experiences of existing health home programs are an important resource for other states developing or considering programs.

Care Coordination and Care Management. Practice level suggestions often focused on the central importance of transitional care management and included continuing work to improve infrastructure, team composition, and processes to support transition planning, follow-up, and referral tracking after hospital discharge. One provider suggested that care coordination and transitions could be improved if states play a more proactive state role in fostering productive relationships between providers, such as helping arrange memoranda of understanding (MOU) between health homes and hospitals and emergency departments, which have proved to be difficult and time-consuming in several states. Other suggestions included streamlining and where possible aligning prior authorizations in states with multiple MCOs and leveraging agreements with MCOs to promote cooperation with health home providers. In Missouri, both providers and state officials would like to change the state-imposed rules around caseloads for care managers, allowing providers more flexibility in staffing ratios depending on the needs of the population served.

Care Team Approach. All respondents strongly supported the care team approach as critical to the functioning of the health home model and for improving care received by the enrollees. Some informants suggested more explicit delineation of roles and qualifications for at least core team members, to ensure a robust and multidisciplinary team and more consistent enrollee experience across health homes. Others highlighted the need for enough flexibility to allow tailoring so that team composition is responsive to the needs of the communities and populations they serve. Specific suggestions were inclusion of social and community health workers,

pharmacists, and, where appropriate, other practitioners such as nutritionists and dentists.

Eligibility Considerations. Careful consideration of eligibility criteria was generally suggested, especially avoiding restrictive criteria that could contribute to siloing. One respondent pointed specifically to New York's vision of its "virtual health homes" as the model of care for all its Medicaid beneficiaries. In states where pediatric enrollment was low, many suggested broadening criteria to include more child-specific conditions. Others suggested enhancing the program's preventive components by focusing more on those at risk of developing multiple chronic conditions or mental illness, rather than only those already experiencing specified conditions. Several informants suggested broadening eligibility to include a greater range of chronic conditions, those receiving long-term care, and lower-cost individuals in need of but not accessing appropriate care. One informant said her experience suggested that a focus on the highest-cost cases tends to pull in enrollees who already are receiving intensive services, while a focus on a "second bucket" of beneficiaries who are at risk but not in the highest-cost category would give the program a better chance to affect costs. Some stressed the importance of considering social, environmental, and functional factors beyond those reflected in claims. A patient's complexity may not necessarily align with their medical spending if they do not have access to a usual source of care, are unaware of their conditions, or have nonmedical issues that exacerbate illness or complicate treatment.

Data Availability and Reporting Infrastructure. In each state, informants emphasized improvement in the availability of useable data for practice level feedback and for care coordination efforts. Providers noted that feedback would be more relevant and timely if their states had comprehensive data infrastructure and provided training on it before program implementation, and that standardized data management tools available to providers would have enabled them to better track outcomes. Establishing baseline data and data collection procedures prior to a program start can provide the longitudinal data on key outcomes (e.g., improved chronic disease management, reduction in BMI, and smoking cessation) that providers need to see how they are performing and where additional work is needed. Streamlining reports and being selective in the number of measures tracked can keep providers from becoming overwhelmed and increase the use of data analytics to guide their efforts. Developing state capacity to make aggregated data available to providers--rather than disaggregated claims-based data that is difficult to work with and therefore not useful--can help providers manage their patient populations more effectively. One informant suggested that CMS provide better guidance around regulatory restrictions on sharing patient information and the interpretation of HIPAA and other state and federal privacy rule requirements. Confusion and disagreement regarding what information can be shared between entities treating the same person have been an administrative burden for providers and a roadblock to care coordination and management in several states, particularly for enrollees with behavioral conditions.

Payment System Issues. Most informants suggested attention to designing a payment system that aligns with the health home design and takes into account all costs practices incur to meet health home requirements and deliver services. These include costs associated with new and sometimes cumbersome attestation and billing procedures, establishing relationships and processes critical for integrating physical and mental health, and providing transitional care. Generally providers agreed that a population-based payment allows care managers and health home staff to engage in care activities that are not always billable in a traditional FFS model but are crucial to enrollee success. Informants also suggested providing start-up or seed funding to support practice transformation, including such things as putting staff in place and assisting with EHR adoption or modification prior to program implementation. One provider noted that insecurity about the long-term continuation of the enhanced payment rates can reduce the willingness of providers to make the necessary investments for practice transformation.

Informants also stressed the importance of making sure that providers are aware of the actual costs they are likely to incur and that the payment structure encompasses all activities required to deliver health home services, including those not directly associated with the provision of care. Two of the first states to implement health homes, Oregon and Rhode Island, encountered problems with respect to the administrative burden their billing and payment systems imposed on providers. An Oregon State informant said the state would have preferred more latitude in defining and reimbursing services that may not be necessarily considered an encounter but are important in broader care, such as extended office hours or interpreter services. Health home providers in Rhode Island suggested that the state simplify the current, reimbursement system which requires health homes to bill for care coordination services in 15-minute increments of time. Rhode Island sought CMS approval for a flat PMPM care coordination payment for its CEDARR health homes last year but was unsuccessful because CMS would not allow a mixed payment system using a PMPM payment along with the program's FFS case rates for intake, assessment, and care plan development.

A perhaps more fundamental payment system issue is assuring that the payment system adequately reflects the risk profile of the patient population, so that payment covers the cost of health home service delivery. Both New York and Iowa have revamped their tiered payment systems in an attempt to better align payments with costs for enrollees with complex needs. In New York providers found that the purely claims-based acuity score failed to capture factors such as uncontrolled SUD, active HIV/AIDS, homelessness, and functional limitations that can make enrollees more expensive than claims alone would indicate. The state's new payment structure incorporates provider assessments of functional status and other factors, including homelessness, into a three-tiered acuity measure with higher payment associated with the higher tiers. Persons who are homeless are automatically placed in the highest tier. Iowa providers similarly found that initial the tier determination process failed to account for effects of socio-economic conditions on enrollee health status and the time and level of effort associated with their care. Providers reported that the revised process added

criteria and gave providers more control over tier assignments, but it still does not explicitly include criteria based on social determinants of health.

Duplication of Services. States must provide assurances in their SPAs that health home services will not duplicate other Medicaid-financed services. Although most states did not discuss duplication of services, providers and state officials in both Wisconsin and Maine recognized it an issue that requires careful consideration in initial program design and monitoring for potential adverse consequences during implementation. Wisconsin made an initial decision that persons with HIV/AIDS had to choose between receiving services from an MCO and health home services provided through ARCW. The state has since reversed that decision and will allow MCO enrollees with HIV/AIDS to receive health home services and require MCOs to contract with ARCW to provide them. In Maine, the effects of the implementation of the Stage B health home program led every respondent to say that the state should have better delineated the personalized short-term and transitional services provided by CCTs versus the longer-term service coordination and management provided by the BHHs to avoid CMS concerns about duplication of services. Informants felt that the failure to do so created undue administrative burden for providers and threats to care continuity for patients.

Program Structure and Flexibility. Informants had a range of suggestions for states related to having greater structure versus greater flexibility in program design and administration. Flexibility was suggested at the provider-level to allow health homes to respond to different needs and target different issues that may be dominant in a particular community or region and, at the program level, to allow for incremental and ongoing program adjustments based on areas of success and weakness. Also at the program-level or state-level, several informants suggested greater standardization and more guidance on structure, training, and core staffing to create consistency across health homes, including having a full-time position to oversee program implementation. The dual thrust of the suggestions for both greater structure and standardization and greater flexibility is consistent with experience among the first programs. Some found that having provider qualifications that were as inclusive as possible promoted some level of practice transformation but resulted in considerable variation in capabilities across health homes. Others found that imposing stricter requirements reduced participation, slowed implementation and enrollment, and did not necessarily reduce variation across health homes.

Many informants emphasized greater focus on planning, preparation, and training before the launch of the program--not just having infrastructure in place to support data collection, reporting, and payments, but also involving providers and other health system representatives in program design and implementation. At the provider-level, informants said that it is vitally important to assure that participating providers are ready to become a health home prior to enrolling patients; have a clear understanding of the scope of work, costs, and risks involved; have buy-in from staff and partnering organizations; and have dedicated leadership championing the transformation. Most informants felt health home service delivery could be improved through increased state

support for training and preparation. At both the state and provider-level, informants suggested local and regional learning collaboratives through which providers can focus on specific issues and how others have addressed them as well as initial and ongoing technical assistance for implementation and practice transformation, including more advanced assistance as providers encounter new challenges.

Finally, most informants counseled patience on the part of states and CMS in expectations for savings and other outcomes. Many noted that practice or health system change and implementation of a new program inevitably takes time and that statistically significant improvement may not emerge over the initial 1-2 years: Small or no changes in spending and utilization may indicate only that more time is needed for full implementation and for the longer range effects of greater care coordination and management and care integration to be seen.

X. LESSONS LEARNED

Several factors emerged from informant reports as key facilitators of a successful program:

- Pre-implementation planning and design.
- Provider readiness and assistance with transformation.
- Well-developed HIT and other infrastructure for care coordination.
- Using data for quality improvement.
- Adequate funding.

Pre-implementation Planning and Design

Implementing any new health care program or intervention requires planning and preparation, and as a best practice, planning should involve delivery system stakeholders. Many providers in our evaluation states were not included in program development which may have contributed to a rocky rollout in more than one state and extended the overall implementation period. Ultimately, providers are responsible for execution and therefore should have input into the design of a program to ensure requirements placed on them are achievable and expectations realistic. Consumer representatives and advocates should also be engaged in program design to make sure the needs of a target population are sufficiently addressed.

Provider Readiness and Assistance with Transformation

Most states designated as health homes providers who appeared best suited to take on an expanded set of roles and responsibilities inherent in the model's whole-person approach to care. However, almost all states seem to have relied on provider self-attestation of their capabilities to function as health homes, which may not always be the most accurate assessment. One state reported that provider self-assessments tended to start high and then dip as experience was gained before resuming an upward trend. To make sure providers are well positioned to become health homes, a face-to-face or independent assessment may serve the purpose better. Some states phased in requirements or allowed providers extra time to achieve them, which may have distracted from the provision of care. On the other hand, a slow rollout as provider readiness is established also slows program enrollment.

Implementation of the health home program generally represented a twofold change for many providers: (1) adjusting to new systems and processes for member eligibility determination, enrollment, reporting, and payment; and (2) establishing new clinical roles and procedures. In some states, providers received little or no training prior to the program rollout. For many, this contributed to a challenging and frustrating implementation. Even though all states provided some guidance, technical assistance,

and learning opportunities for participating providers once the program began, providers often had to figure things out on their own or quickly implement what they learned. In some cases more advanced providers would have liked to see more focus on issues past the basic level.

Practice transformation is a process of growth and refinement in response to new payment and delivery models, changing Medicaid rules and policies, and growing numbers of patients requiring complex care. Because providers have to continue to provide services while acquiring new skills or adopting new technologies, practice transformation is often a fatiguing process. Strong state support throughout this process, including educational resources, training opportunities, and financial support, can promote smoother, more effective transformation.

Well-developed Health Information Technology and Other Infrastructure for Care Coordination

Perhaps the most frustrating aspect of the health home program for many providers was the absence or inadequacy of infrastructure to help them fulfill program requirements. Robust HIT systems are a critical tool for timely, reliable, and efficient information exchange with internal and external providers to facilitate care coordination and care transitions and to promote access to, collection and sharing of patient data. In many states, the slow and uneven pace of HIT infrastructure development meant that health homes began operating without tools that would have better supported implementation of the model. States and providers suggested making sure sufficient, workable HIT infrastructure is in place prior to program inception. Other infrastructure also is critical, however, to realize the benefits of HIT. Providers suggested that a more proactive state role in supporting MOU or other formal or informal arrangements with hospitals, emergency departments, and MCOs would help to foster more productive relationships and contribute to better care coordination and specifically transitional care.

Timely Access to Data for Quality Improvement and Evaluation

Accurate, complete, and easy to use data is essential for successful delivery of health home services and program evaluation. States and providers use data to determine eligibility of a potential enrollee, look for gaps in care, identify service needs, monitor progress at the individual-level and population-level, and track trends to evaluate the impact of an intervention. Systems, processes, and training need to be in place for providers to access up-to-date claims and utilization data in an easily digestible and usable format. Providers need to be able to collect and analyze data on their patients to monitor and track patients' progress at the individual and practice level to develop and target appropriate interventions and manage the health of the entire population. Similarly, providers need to be able to generate and submit performance reports to the state so the program can be continuously monitored to allow for mid-course adjustments and outcomes evaluation. Ideally, this data collection and exchange should be done in a manner that minimizes administrative burden on providers, with assistance of EHRs, registries, and other data management tools.

Adequate Funding

Health home enrollees include the highest-need Medicaid beneficiaries with multiple chronic conditions, who often have co-occurring mental illness that affect their overall well-being and socio-economic status. Beneficiaries require assistance that may include referrals and coordination of numerous clinical and nonclinical services, extensive education and emotional support, close contact which may include home and hospital visits, and assistance with food, transportation, housing, and other social and community-based services. Commonly, significant time and effort is spent on outreach and enrollment, and often multiple staff are involved in a care of an individual health home enrollee. Costs incurred for the care of health home beneficiaries can be substantial, particularly for those with more complex situations. For the most part, providers we interviewed felt that the state-established PMPM rate for health home services did not adequately cover all costs incurred to perform as a health home and meet administrative requirements, and in some cases did not cover all costs associated with necessary activities that are not directly visit related.

XI. CONCLUSIONS

In this report, we examined the current status, outcomes, perceptions of progress, and lessons learned from the first 13 health home programs implemented in 11 states. As documented in our previous reports, this new model of health care for Medicaid beneficiaries with complex physical, mental, and social conditions was not simple to operationalize and implement, and in many cases, states and providers are still working to meet some of the model's requirements. Although the program has been in place for four years in some states, its impacts on enrollee health outcomes, utilization of services, and costs remain largely unknown due to lack of reliable quantitative data. In this analysis we summarized the status of the 13 programs and early findings from state evaluations; overall experience, perceptions, and opinions of providers, state program staff, and other stakeholders regarding the strengths and weaknesses of designs and operation of state models; and key lessons learned from the national program evaluation activities to date.

General consensus among state officials and providers is that the model has served the targeted, high-need populations well, and the few state evaluations available to date show some promising results with respect to reduced hospitalizations and emergency department use and Medicaid spending. Most states in our evaluation plan to continue the program long-term, and a few have implemented or are planning to implement new programs for additional populations. Other contemporaneous reform initiatives have complicated the ability to distinguish health home effects from those associated with other initiatives and have contributed to changes made or contemplated in health homes in four of the initial states.

One state has ended health homes as a distinct program, and two others may follow suit. Oregon withdrew its SPA at the end of the two-year period of enhanced federal match funding for health home services. The state integrated the health home program and PCPCH providers into its larger system reform organized around CCOs, the Oregon version of ACOs. This move has allowed the state to expand eligibility beyond the specific health conditions specified in its health home SPA. Ohio is planning to end its health home program in favor of an overall behavioral care system redesign. Although Idaho has not ended its health home program, it is considering rolling its health homes into a larger PCMH initiative focusing on broader populations and conditions. Iowa is undertaking larger health system changes, including moving most Medicaid enrollees into risk-based managed care, and state officials are not sure how the larger changes will affect its two health home programs.

Among the suggestions and lessons these first 11 health home states have to offer are the need to:

- Develop the health home design and implement the program in collaboration with providers and other stakeholders.
- Assess provider readiness to assume new roles and responsibilities.
- Provide initial and continuing assistance with practice transformation.
- Ensure that HIT and other infrastructure is in place to support communication, care coordination, exchange of data, and monitoring of outcomes.
- Provide adequate financial support to providers.

While all the states are working to realize these ideal conditions for their health home programs, perhaps the most important lesson learned is to have as many of these core elements in place as possible before the program begins, so providers can focus on enrollee care needs and meeting the goals of the program.

XII. ENDNOTES

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APPENDIX A. HEALTH HOME PROGRAM EVALUATION 2015 FOLLOW-UP INTERVIEWS

State Official/Advocate Core Protocol

Overall Program Assessment

1. What outcomes and impacts of the health home program have you observed during the eight-quarter enhanced match period and since the eight quarters ended? Have there been any effects on quality, health outcomes, costs, and health care utilization?

    - If so, is there any evidence you can share with us showing the effects of the program?

2. What unexpected outcomes, positive or negative, have resulted from the health home program?

    - *If applicable*: How, if at all, do you plan to address these unintended consequences?

3. We would like to understand which elements of your health home design seem to work particularly well and which do not work as well.

    - *Probes*: Provider selection; Eligibility determination and enrollment; Specific structures and processes to support care integration and coordination/chronic disease management, transitional care, patient engagement, community supports; Payment method and level; Data; HIT/HIE; technical assistance.

Providers

1. Are there identifiable providers/organizational types that have performed better as health homes than others? What contributes to their success?

Care Delivery

1. Are you monitoring changes in coordination of care and chronic disease management for health home members? Did you observe any improvements during the eight-quarter period? Have you observed any improvements since the eight-quarter period ended?

    - Are there providers that are more successful at care coordination and disease management than others? What contributes to their success?

2. Are you monitoring changes in the integration of behavioral health and primary care for health home members? Did you observe greater integration during the eight-quarter period? Have you observed greater integration since the eight-quarter period ended?

    - Are there providers that are more successful at care integration than others? What contributes to their success?

3. What proportion of your health home members needs long-term care services and supports? Are you monitoring access to LTSS for these members? Did you observe any changes in access to LTSS services during the eight-quarter period? Have you observed any changes since the eight-quarter period ended?

4. Are you monitoring access to community-based supports and social services for health home members? Did you observe any changes during the eight-quarter period? Have you observed any changes since the eight-quarter period ended?

    - Which supports are included (e.g., home modifications, affordable housing, nutrition, food security, housing with services, transportation, adult day care, mental/behavioral health-related supports, disease self-management education, any other)?

5. Are you monitoring whether health home members and/or caregivers are able to participate more effectively in decision-making concerning care? Did you observe any changes during the eight-quarter period? Have you observed any changes since the eight-quarter period ended?

6. Are you monitoring changes in transitional care? Did the proportion of enrollees who had timely follow-up after discharge from an inpatient facility or an emergency department visit increase during the eight-quarter period? Have you observed any changes in the proportion with timely follow-ups since the eight-quarter period ended?

    - What proportion of health home providers receives notifications of inpatient admissions/discharges and emergency department visits electronically in real-time? What other means of notification are hospitals using?

Health Information Technology

1. Are you monitoring how effectively are health home providers integrating HIT into daily workflows? Did you observe increases in HIT use during the eight-quarter period? Have you observed increases in HIT use since the eight-quarter period ended?

    - Is there an increase in the number of health home providers who are able to bidirectionally exchange patient data with other parts of the health care delivery system through HIE?

2. Are you monitoring how effectively are health home providers using data analytics to monitor health care quality, cost, and utilization of their patients? Have you observed any changes during the eight-quarter period? Have you observed any changes since the eight-quarter period ended?

3. Do you have any evidence on the effects of HIT, HIE, and data analytic infrastructure on health care quality, care coordination, and health care utilization?

Beneficiaries

1. Have you observed that member clinical outcomes [specify] improved as a result of the health home program? Do you have any evidence you can share with us?

    - Is the program equally effective for different members (e.g., those with different conditions, those with SMI and/or social issues, adults/kids, men/women, different age groups, urban/rural residence)?

Sustainability

1. What motivated your decision to continue the program?

2. Do you have any plans to expand the program to new populations, providers, geographic areas?

3. How are you financing the program, now that the enhanced match expired?

    - Have you made any changes to provider rates or payment methodology?
    - *If applicable*: Why did you make those changes?

Wrap Up

1. Is there anything about your health home program that can be modified or added to make it more effective? If so, will be taking steps to make these changes?

2. Do you have any recommendations for CMS or states that are planning to implement the health home program?

3. Is there anything else about your health home program we should know?

Provider Core Protocol

Overall Program Assessment

1. What outcomes and impacts of the health home program have you observed during the eight-quarter enhanced match period and since the eight quarters ended? Have there been any effects on quality, health outcomes, costs, and health care utilization?

    - If so, is there any evidence showing the effects of the program?

2. What unexpected outcomes, positive or negative, have resulted from the health home program?

    - *If applicable*: How, if at all, do you plan to address these unintended consequences?

3. We would like to understand which elements of your health home design seem to work particularly well and which do not work as well.

    - *Probes*: Provider selection; Eligibility determination and enrollment; Specific structures and processes to support care integration and coordination/chronic disease management, transitional care, patient engagement, community supports; Payment method and level; Data; HIT/HIE; technical assistance.

Practice Transformation

1. How well have you implemented all elements of the health home model of care? Are there any problem areas?

    - Has the PMPM for health home enrollees covered the costs of practice transformation?
    - Did you obtain other financial support to cover specific aspects such as HIT development?
    - What other kinds of support/resources are needed to aid practice transformation?

Care Delivery

1. Did you observe improvements in care coordination and chronic disease management for health home members during the eight-quarter period? Have you observed any improvements since the eight-quarter period ended?

    - Which strategies are successful or unsuccessful in coordinating care/disease management?
    - What kinds of conditions/resources would help you to manage and coordinate care better?

2. Has the extent to which you are able to provide integrated behavioral health and primary care improved during the eight-quarter period? Has it changed since the eight-quarter period ended?

    - How are you integrating behavioral health and primary care? (e.g., co-location, cooperative/contractual agreements)?
    - What kinds of conditions/resources would help you to better integrate care?

3. What proportion of your health home members need long-term care services and supports? Have you been able to provide greater access to LTSS services for your members during the eight-quarter period? Have you observed any changes in LTSS access since the eight-quarter period ended?

4. Were you able to provide improved access to other nonclinical community-based supports and social services to health home members during the eight-quarter period? Have you observed any improvement in community support access since the eight-quarter period ended?

    - Which supports are included (e.g., home modifications, affordable housing, nutrition, food security, housing with services, transportation, adult day care, mental/behavioral health-related supports, disease self-management education, any other)?
    - Are there any particular areas of need highly prevalent in your health home population?

5. Were health home members and/or caregivers able to participate more effectively in decision-making concerning care during the eight-quarter period? Have you observed any changes in member participation since the eight-quarter period ended?

    - Are there any particular strategies for engaging members in their health care that seem successful or unsuccessful?
    - Generally, are health home members better able to self-manage their conditions?

6. Were you able to increase the proportion of health home enrollees who had timely follow-up after discharge from an inpatient facility or an emergency department visit during the eight-quarter period? Have you observed any changes in the proportion with timely follow-ups since the eight-quarter period ended?

   - How do you define “timely”?
   - What proportion of inpatient facilities your health home enrollees use provides you with notifications of admissions/discharges electronically in real-time?
   - What proportion of facilities provides notifications of emergency department visits electronically in real-time?
   - Is there a difference in timeliness of notifications between affiliated inpatient facilities and outside health systems?

Health Information Technology

1. Did you increase your use of HIT during the eight-quarter period? Have there been any changes in your use of HIT since eight-quarter period ended?

   - Are you able to exchange patient data with other parts of the health care delivery system electronically?
   - Are there continued barriers to full exchange of patient data among the care team and with other providers?

2. To what extent were you using data analytics to monitor health care quality, cost, and utilization of your patients during the eight-quarter period? Has your use of data analytics changed since the eight-quarter period ended?

3. Do you have any evidence on the effects of HIT, HIE, and data analytic infrastructure on health care quality, care coordination, and health care utilization?

Beneficiaries

1. Have member clinical outcomes improved as a result of this program? Which outcomes specifically?

   - Is the program equally effective for different members (e.g., those with different conditions, those with SMI and/or social issues, adults/kids, men/women, different age groups)?

Sustainability

1. What motivated your decision to continue in the program?

2. How is the state financing the program, now that the enhanced match has expired?

    - Is the payment amount sufficient to offset costs of these higher need populations?

Wrap Up

1. Is there anything about your health home program that could be modified or added to make it more effective?

2. Do you have any recommendations for CMS, states, or other providers that are planning to implement the health home program?

3. Is there anything else about your health home program we should know?

Health Home Program Status the End of Eight-Quarter Implementation Period

State/Program:	
Enrollment	
Number of health home enrollees	
Share who are dually eligible enrollees	
Share who are children (if applicable)	
Providers:	
Number of designated health home providers/service locations	
Share of health home providers using EHR	
Share of health home providers connected to HIE	
Share of health home providers receiving timely electronic notifications from hospitals of hospital admission, discharge, or emergency department visit	
How do you define “timely” (e.g., real-time, 24 hours, 48 hours, 1 week, …)	
Share of health home providers who have formal or informal agreements for notifications and/or referrals with all hospitals serving their health home enrollees	
Share of health home members who had a timely follow-up after discharge from an inpatient facility or emergency department visit	
How do you define “timely” follow-up?	
Share of Health Home Providers Who Achieved Required Practice Standards/Recognition by the End of the 8-quarter Period of Enhanced Match. If Applicable:	
NCQA recognition (specify level)	
Council on Accreditation of Rehabilitation Facilities (specify level)	
Other state or external required standards (specify level)	
Share exceeding the required level of recognition/standards	
Care Integration:	
Share of providers with co-located physical and behavioral health services	
Share of providers with contractual agreements that support care integration	
Payment:	
Have there been any changes to the payment structure or level since the 8 quarters ended? If so, please describe.	

Self-Evaluation Results

1. If any state-conducted/sponsored health home program evaluation reports are available for release, please share those with us. In particular, we are interested in the following:

    - Provider experience with the program.
    - Health home enrollee experience with the program.
    - Health home program impacts on quality, health outcomes, utilization, and costs.