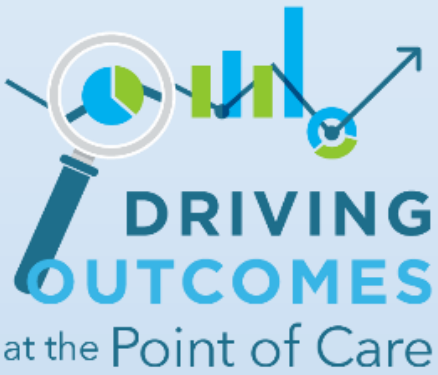

"It's not about using buzz words on current data trends. It's knowing how to use data for real results in the community." Mike McCabe, Plan President - FOREVERCARE

Bending the Curve

Proper use of HIE through community registries

Justin Villines, Dr. Carolyn Morris, Dr. Eric Yoder & Michael McCabe

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Overview of Arkansas PASSE Risk-Based Provider Organization (RBPO) Model

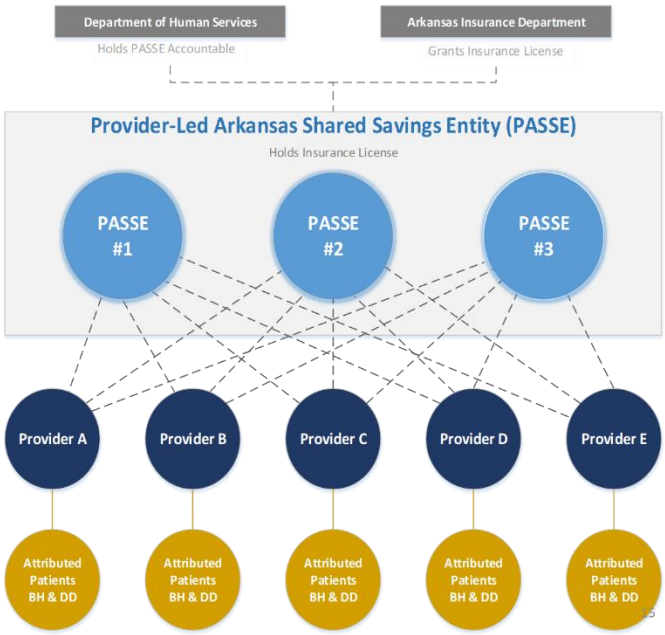
Arkansas developed a hybrid model of provider-sponsored organizations (as opposed to the traditional Managed Care Organization (MCO) approach) called a Provider-owned Arkansas Shared Savings Entity (PASSE), that is targeted to a relatively small group of Medicaid enrollees who represent a significant percentage of Medicaid spending because of their complex medical needs. Provider-led and owned organizations would become responsible for integrating specialized home and community based services for individuals with who have intensive levels of treatment or care due to mental illness, substance abuse, or intellectual and developmental disabilities with their physical health care.

Organizing the array of services for individuals with lower costs by achieving the appropriate utilization of services. Care coordination is expected to improve health outcomes and lower costs by decreasing gaps in care, thereby lowering the rates of crisis and acute care, decreasing duplication of services, and improving medication management. States have demonstrated savings through lower rates of emergency department (ED) visits, reduction in hospital admissions for ambulatory sensitive conditions and reductions in hospital readmissions.

While the state has borrowed ideas from the experiences of other states, the PASSE approach offers a shared savings management model that is unique to Arkansas. For more than a year, Governor Asa Hutchinson, Department of Human Services (DHS) and the bipartisan, bicameral Health Reform Legislative Task Force (RLTF) have engaged in an unprecedented effort to examine potential reforms that would make the Arkansas Medicaid programs sustainable for the future. The Stephen Group (TSG) was retained by the Task Force to assess potential reforms. Through these efforts, two potential service delivery models were identified.

One alternative for DHS was to contract with a small number of full-risk Managed Care Organizations (MCOs) through a competitive process. In a second model, called Diamond Care, DHS would contract with a single Third Party Administrator (TPA) to administer large parts of the Medicaid program. This proposal is a hybrid of the other two proposals, borrowing advantages from each model.

The PASSE Model



Problem Statement

Arkansas is one of the last Fee for Service (FFS) states in the country, first venturing into Managed Care via a Dental RFP in 2016. The market is as geographically diverse as any state with its own set of unique and shared challenges with other states, such as the common challenger of transportation needs. Members prior to 2018 were faced with navigating a complex system of care with little support from various state agencies due to budget constraints and lack of understanding about how to address member needs. Some providers did offer various levels of care however, without consistency or regular oversight.

The DHS PASSE program concept aims to reengage members into the care delivery system and ensure the access to care, regardless of socioeconomic or physical disposition. The state vision to mandate Care Coordination for the intellectual and developmental disabilities (IDD) and serious and persistent mental illness (SPMI) population ratio at 1:50 with the program being statewide required PASSEs to expand their innovations to support and track member navigation needs statewide.

Members and guardians have been at the mercy of the state or providers to address their unique needs. On some occasions, this approach has worked but in many cases members and guardians have ended up feeling lost in a universe of options and unknowns. Members having a developmental disability or a behavioral health challenge find it is not easy to handle accessing services on their own. In the event a member has a chronic and/or behavioral health condition with a developmental disability, the need to stabilize findings support, is crucial and must be timely. When a member with high needs does not understand who to go to in the state, required provider engagement protocol benefits for which they are eligible or a service need and the location, this can be catastrophic as timely engagement and access is key for stabilization.

"Most of FOREVERCARE's members are high risk with complex and chronic conditions. An emergency room visit for a patient with chronic conditions can be considered a failure of primary care. The case study demonstrates that prompt access to primary care follow up, previously championed by the Coleman and Naylor models, significantly decreases emergency room visits. The availability of real time alerts through the community registry provides the baseline information to begin an efficient care transition process." Eric Yoder, MD is a seasoned healthcare executive and consultant with over 30 years of experience in managed care and Medicaid.

The Model

Arkansas' new PASSE model of care coordination was designed for a group of Medicaid enrollees who represent a significant percentage of Medicaid spending due to their complex medical, behavioral and social service needs. With this new model the state selected individuals with higher levels of care needs for behavioral health, substance use disorder and developmental disability services, in addition to medical care. There were several goals of the PASSE model;

1). Improve the health of Arkansans who need intensive levels of specialized care due to behavioral health issues or developmental/intellectual disabilities services;
2). To link providers of physical providers with specialty providers of behavioral health and developmental/intellectual disabilities services;
3). To coordinate care for all community-based services;
4). To allow flexibility in the array of services offered;
5). To increase the number of service providers available in the community to the population covered;
6). To reduce cost of care by coordinating and providing appropriate and preventative care.

> *"Our overall goal was to improve the care navigation of members and leverage technology automation to the fullest extent possible, connecting to the SHARE HIE just made sense".*
> Gabe Freyaldenhoven, FOREVERCARE Provider Board Member and CEO of River Valley Therapy.

The Department of Health Services (AR) provided four metrics that should be met to ensure quality patient care and effectiveness of care coordination services:

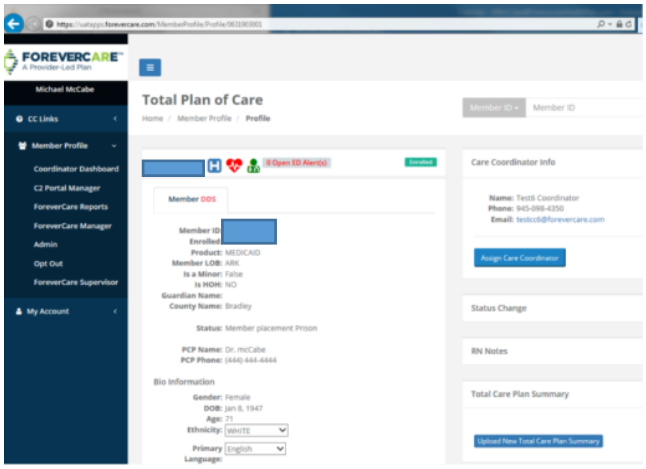
1. Initiate contact with each member within 15 business days after the first day of the month following attribution to the health plan;
2. Monthly face-to-face contacts with each member;
3. Follow-up with each member within (7) business days of visit to Emergency Room or Urgent-Care Clinic, or discharging from Hospital or Inpatient Psychiatric Unit/Facility;
4. Ensure that all members have selected a PCP, confirm that the member is selecting/providing a referral to a PCP located in a federal qualified health center nearest to member's community.

Based on the requirements, FOREVERCARE model would leverage and employ field based Community Health Workers (CHWs) in a 50:1 ratio with hand held personal devices to automatically track and document events with reporting into FOREVERCARE's central office. FOREVERCARE would deploy a registry or virtual care navigation tools.

The key is having real time alerts with predefined care transitions for each member regardless of their event details. To trigger electronically through real time automation and ensuring all tracking and oversight is complete with daily reporting to ensure quality care and effectiveness of care coordination.

Our goal with over 150 Care Coordinators deployed statewide was to enable them with real information and real tools, with real time alerts to better serve members throughout the state. Imagine a world where someone visits the ER at 11:00 PM for chronic pain and the next morning at 8:00AM the member or guardian is called or visited by their assigned Care Coordinator with a planned transition protocol? How could this happen, how could we define a process, share the right level of information and engage a complex member to renew their faith in the community that we care. At the same time having all the key information relative to the members needs and immediately scheduling the member for a PCP appointment within 72 hours.

By enabling care coordinators with tablets and a basic registry that is connected via HL7 ADT messages to the State HIE State Health Alliance for Records Exchange (SHARE, Arkansas' only statewide HIE), we can structure the care coordination, collect key quality measures, force preferred navigation protocols, ensure transportation arrives and ensure members make their visit through simple interventions with basic check boxes in the registry.



The FOREVERCARE custom Registry tracks all basic member information and forces data collection and transition protocols. The concept is not new as many organizations deploy registries, but the key is how much and how best to leverage and not boil the ocean.

(A very mature community registry with care transition protocols that supports value-based care is - https://www.healthbi.com/)

In Phase I of the PASSE program we used a modified PCMH model stimulated with technology that Care Coordinators used. Guardians and Providers could also seek additional information such as risk stratification, member history or gaps in care.

FOREVERCARE immediately engaged the state health information exchange (HIE) to extract emergency department and inpatient HL7 ADT message alerts and automate the distribution of the event to field based CHWs statewide with a goal of meeting 2 of the 4 state requirements; a PCP assignment and contact within 7 days of acute event and assigned Primary Care Provider. We took the effort much into the future and had agreements with primary care providers to bring into the office within 72 hours.

Our model focused on connecting members to the primary care provider within 72 hours' post-acute event.

SHARE assisted FOREVERCARE PASSE by providing daily reports for attributed Medicaid beneficiaries when those patients were admitted and discharged from the emergency room and/or had an inpatient encounter in the last 24 hours. Once the PASSE received their 24-hour

daily report, the FOREVEVERCARE RNs had essential clinical information including but not limited to the discharge summary via the Virtual Health Record (VHR). The VHR displays information as a traditional clinical chart, it retrieves and shows all available data for a selected patient gathered from all data sources within SHARE to enable a single, consolidated view of a patient's health history.

FOREVERCARE along with three other provider-led health plans, deliver access to healthcare through the PASSE model of care, which is unique to Arkansas and provides coordination of physical health, behavioral health and home and community services to vulnerable Arkansans who qualify for these services due to specific health conditions. Care coordination is increasingly important to Medicaid programs and has shown success in improving health outcomes of individuals while reducing costs. SHARE allowed FOREVERCARE to know when their patients are admitted, discharged and transferred to local hospitals across Arkansas as well as surrounding state hospitals. Care Coordinators could then view the following patient data through VHR in real-time:

- Admission, Discharge and Transfer reports;
- Allergies, Problems, Medications;
- Demographic and Insurance information;
- Laboratory results;
- Radiology reports, image links;
- Discharge Summaries'
- Continuity of Care Documents and Progress Notes;

Using the VHR option, providers of the PASSE had an up-to-the-minute view of a patient's health history at the point of care. This information would be critical for our complex members to ensure continuity of care.

Once the relationship and partnership was formed with FOREVERCARE PASSE, a phased approach was put into action:

Phase I: Access to SHAREs' Virtual Health Record (VHR) & Secure Messaging (SM)

Both applications are web based. This allowed FOREVERCARE PASSE care coordinators and community health workers the ability to use the VHR search functionality and Secure Messaging feature to access to patient information during and after a hospital emergency room admission/discharge and inpatient discharge. The following is what occurred in Phase I:

1. Daily reports on Emergency Room and Inpatient Encounter Discharges in the last 24 hours;
2. Search individuals' health information for problems, medications, allergies, and medications to enhance clinical decision making in the field;
3. Alert the receiving PASSE about an individual's status in the emergency department to provide decision support and prepare for treatment needs that may result in requiring

time sensitive treatment or therapy such as trauma, heart attack, or stroke care coordination efforts;

Phase II: Flow of real-time Admission, Discharge and Transfer (ADTs) to FOREVERCARE PASSE Community Registry

To prove the concept, a channel was created to flow all ADTs of the attributed beneficiaries/members, based on FOREVERCARE patient attribution, via SHARE to FOREVERCARE PASSE custom registry platform to trigger automated care transitions for care coordinators. This was built to have real-time ADTs to determine if patient will bounce back to the Emergency Department and/or inpatient encounter for the same or related complaint and supported real-time care coordination efforts.

The following is what occurred in Phase II:

1. Incorporation of the HIE by accessing the patient's consolidated health history using the flow of real-time ADTs allowed for the intensive care coordination of FOREVERCARE's patient population;
2. Leverage Population Health by acuity tools to assist with case management;
3. Once FOREVERCARE received the ADT custom registry, the system generated automated tasks and transition protocols mandating the assigned care coordinator contact the patient and schedule PCP visit within 72 hours;

   In addition, the FOREVERCARE RNs reviewed the entire ADT of the patient record, regardless of which hospital they may go to, which is critical to the success of tracking, monitoring and following up on the patient.

The Results

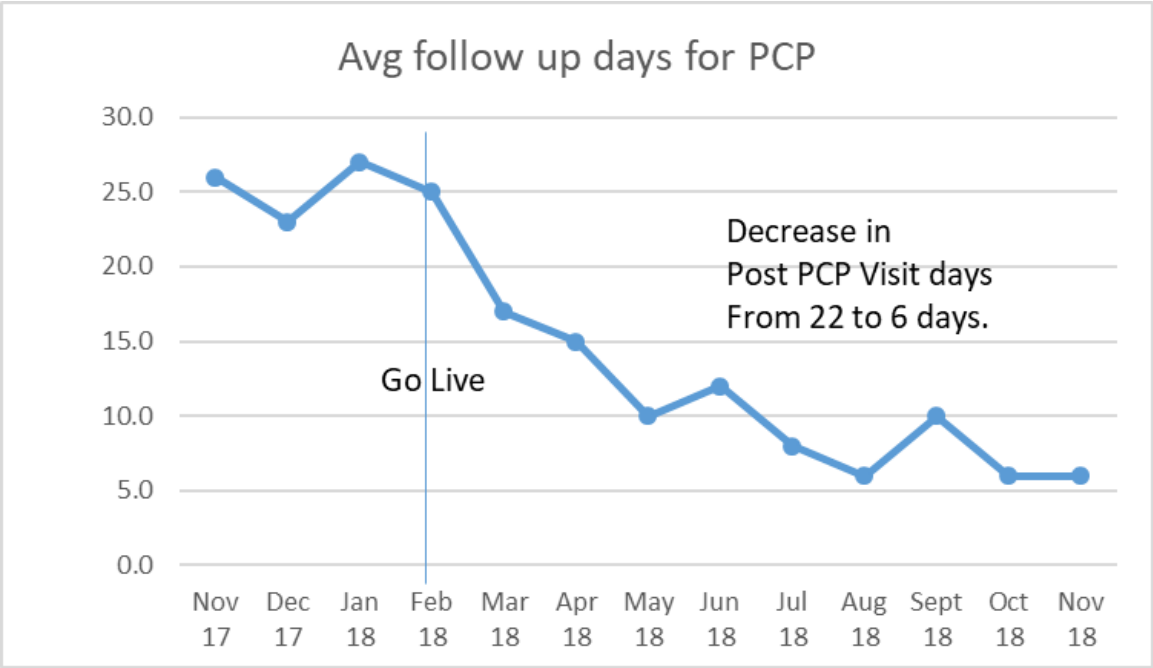
With any program the baseline data and goals with consistent weekly and monthly reporting is key to track and monitor progress and adjust as needed in the event of adverse results. This is done by FOREVERCARE population analysis team down to the provider location Tax Identification Number (TIN) or by a specific provider as needed when reviewing data anomalies to identify needs.

Our vision is care should not be determined by the socio-economic conditions you may not have had control over or by the zip code you live in. Care should be driven at the best possible means no matter what the circumstances. Our goal was to reengage the member with primary care (Physical or Behavioral Provider) and maintain that engagement timely and as frequently as necessary to ensure continuity of care.

We also found in many cases in Arkansas over 40% individuals with an existing chronic condition had not seen their respective specialist for that chronic condition. Basic population health techniques from historical paid claims data identified this gap and the respective care coordinator schedule the specialist appointments for the members to ensure member needs are covered.

Several of FOREVERCARE members benefitted greatly by the use of technology and population health capabilities by FOREVECARE. Our data analysis team compiled monthly paid claims data provided by the state and setup baselines of our members deployed in our community-based model. FOREVERCARE analyst team varied the data by product line, provider and region seeking various patterns that may exist and working with providers to address gaps. When running through the data we looked at the number of days a member took to have a post-acute event Primary Care visit. FOREVERCARE leveraged paid claims data from the state with monthly trending reports and saw a dramatic decrease from 22 days on average to 6 days. (Fig 1.0)

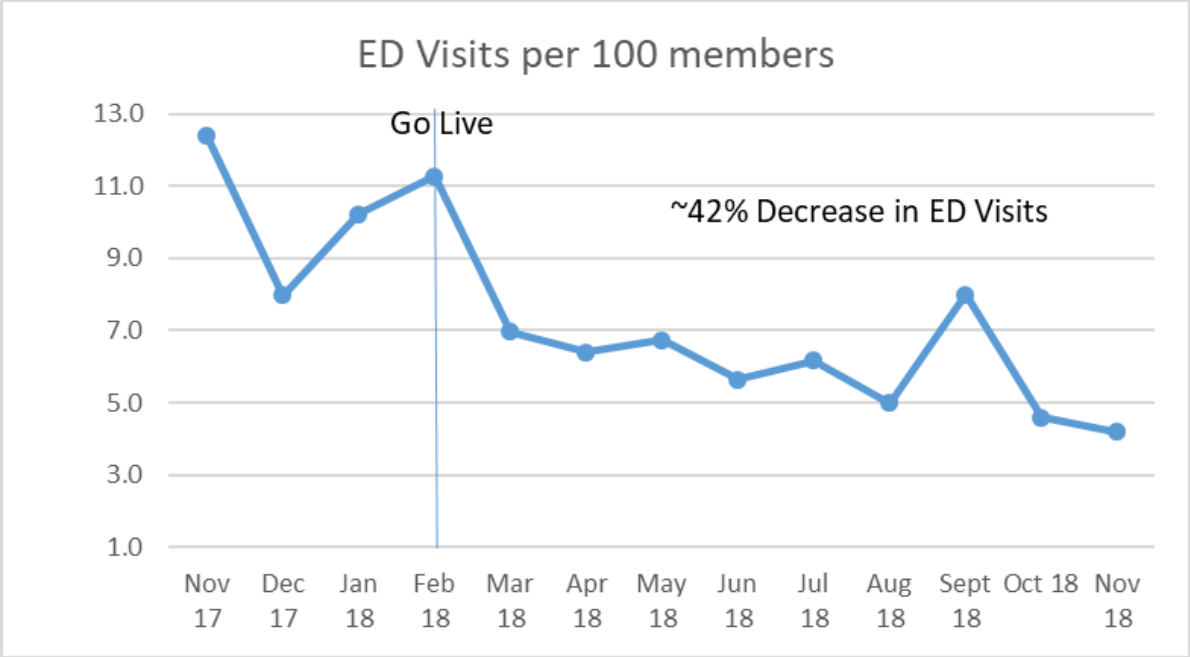
Fig 1.0



*Source: Historical Arkansas Medicaid Paid Claims

In addition, to the post-acute PCP visit, FOREVERCARE looked at other events that would have a positive impact based on evidenced based models elsewhere in the county. The number of Emergency Department visits per member should decrease based on similar models. FOREVERCARE data for Emergency Department visits was normalized to 100 users due to the small volume of members in our data set of about 7,500 lives. As we can see from go live in February 2018 with the immediate engagement by forced navigation protocols from ED alerts to the registry from SHARE HIE the results have been better than expectations. Continued monitoring and coaching of Care Coordinators through weekly training sessions, daily close reports and directing PCP services gaps with alternative service locations. In some cases, for complex members we scheduled appointments at BH and PH to ensure continuity of member needs. The results in Fig 2.0 show a decrease in ED visits of about 42%. Leveraging the state SHARE HIE and real time HL7 alerts through our registry combined with our community based CHWs and predefined care coordination protocols.

Fig 2.0



*Source: Historical Medicaid Paid Claims

Summary

The results in fact were not surprising as many care transition programs around the country have experienced similar results. FOREVERCARE had a perfect opportunity to validate a transition model with pre-defined transition protocol and the infusion of a registry with field-based care coordinators in Arkansas. Having **SHARE HIE** as a partner to share HL7 ADT events with FOREVERCARE was the secret sauce that allowed for the automation of the care transitions.

The intent of Arkansas DHS model was to support intense navigation for complex members in the community and provide an avenue for members to re-engage the health delivery system in Arkansas. Starting with the most complex can be difficult early on but the preliminary results with just basic tools and process have been stellar.

> "We use technology right and we believe the continued focus on timely navigation to primary care post-acute event is key to better health of members and improved outcomes ".
> Mike McCabe, FOREVERCARE Plan President.

This same basic process if replicated to other populations such as Long Term Services and Support (LTSS) and Aged, Blind, and Disabled (ABD) populations should see very similar results based on the membership activity in any community across the country. For providers and payers in Medicare or Medicaid choosing to deliver reduce costs, reduce potentially preventable events, and improve quality scores this is a model that is well worth the effort. Recommend a crawl, walk, run approach for payers or providers undertaking this approach since most clinical teams will push back at the perceived duplication of clinical documents or tools. In fact, this is non-clinical and

should only be seen as navigation for members while at the same time the opportunity to collect gaps in care and seamlessly update your respective electronic health record () or electronic medical record (EMR).

As the healthcare landscape continues to transform, HIEs play a key role in providing data that fuels innovation. SHARE and FOREVERCARE PASSE together contributed to these innovation efforts such as population health initiatives, identifying potential social determinants of health and assisting with payer relations, among other efforts.

Change is difficult but with the right approach and providers with an understanding of how to apply the data the results can change the lives of members in the community.

Author Biographies

Eric Yoder, MD is a seasoned healthcare executive and consultant with over 30 years of experience in managed care and Medicaid. He is currently a private consultant primarily to Medicaid health plans large and small and Medicaid adjacent businesses specializing in business development, clinical program optimization, LTSS programs, clinical and behavioral health integration and quality improvement.

Dr. Yoder previously served as senior vice president and Chief Medical Officer for United Healthcare, Community and State which provided Medicaid and Medicare programs serving more than 3 million members in 24 states and the District of Columbia. Recipients were primarily lower income Americans, children and women of childbearing age; Aged, Blind, and Disabled (ABD); chronically ill individuals; supplemental security beneficiaries, Children's Health Insurance (CHIP).

Dr. Yoder was formerly executive vice president and Chief Medical Officer for Amerigroup Corporation covering 1.3 million in 12 states specializing in Medicaid TANF and CHIP, SSI, ABD and Medicare special needs programs. He previously served as president and Chief Executive Officer of Amerigroup Texas, president and chief operating officer of Amerigroup for the Dallas/Fort Worth region of Texas, and vice president and executive medical director for Amerigroup of Southwest Texas.

Before joining Amerigroup, he served as associate medical director for business development and regional director of emergency services and patient repatriation for the Permanente Medical Association of Texas.
Dr. Yoder has been board certified in Emergency Medicine and served in multiple clinical roles including primary care physician, emergency medicine physician and regional Chief of Service for Urgent Care.

Dr. Yoder earned a Bachelor of Science from the University of Maryland, a Medical Doctorate from Duke University School of Medicine, and a Master of Business Administration from the University of Oregon. He completed his emergency medicine residency at the Oregon Health Sciences University.

Carolyn Thomas Morris, Ph.D., is of the Red Streak Clan and born for Tangle People, and was born and raised near Shiprock, New Mexico, on the Navajo Nation. Dr. Morris is a licensed Psychologist, and nationally she is one of the few practicing psychologists fluent in the Navajo language. She is a consultant in the public sector health plan market (Medicaid/Medicare), specializing in plan/program development, clinical oversight and care coordination, reducing health disparities and improving population health. She also continues to

provide direct patient care in community behavioral health, primary care, and geriatric settings. Dr. Morris serves on the Navajo Technical University Board of Regents and holds an elected position representing the Navajo Nation with the Association of Community College Trustees.

Previously, Dr. Morris spent eight years as Senior Director of Native American Affairs with OptumHealth and United Healthcare, Community and State. She has held positions as executive director of an adolescent residential treatment center, special education director, research and evaluation director, and worked as a consulting and clinical psychologist in a wide range of settings. Developed over years working in both the private and public sectors, her guiding professional interest is improving quality, responsiveness and access to healthcare and education for underserved populations. As a Past President of the Society of American Indian Psychologists, she helped guide that organization in its mission of supporting American Indian students prepare for careers as psychologists. Dr. Morris earned her doctorate and master's degrees at Utah State University and did her undergraduate work at Fort Lewis College in Durango, Colorado.

Mr. McCabe, Plan President of FOREVERCARE is a tenured healthcare professional whose passion for the industry has fostered his deep passion and immersion in Healthcare delivery for over 25 years.

Mr. McCabe has worked directly with several states on Health Policy, Innovation, Clinical Innovations, Community Based Care Coordination tools, All Payers Claim Databases, and Information & Benefit Exchanges. His experience designing, building, and optimizing health plan delivery has resulted in over $10 Billion in revenue for the organizations he has supported. His leadership in policy and waiver optimization has supported paradigm shifts in state Medicaid delivery systems in over 20 states.

With a Computer Science Degree and A Navy Veteran, Mr. McCabe has tirelessly fine-tuned a vast and varied skills set in Medicaid and Medicare delivery, even coining the term "Eco System of Care" referring to the community and the safety net influence on care via technology or socio-economic impacts to care delivery. His leadership roles with a large National payer for 13 years saw Mr. McCabe managing Medicaid and Medicare technology operational delivery and contract compliance as the Vice President of Technology Operations serving 20 states. He also led Business Development for the western region and enhanced care delivery through hundreds of innovations for complex members across multiple states and communities with the focused on enabling providers with data and information at the point of care.

Prior to leadership roles with this large national payer Mr. McCabe served as the Director of IT for Sutter Health in Sunnyvale, CA. In this capacity he managed billing, managed care analytics, and multiple Market innovations such as the first electronic EKG with central reader, and Radiology Dictaphone (Automated Transcriptions).

About State Health Alliance for Records Exchange (SHARE): SHARE is Arkansas' statewide Health Information Exchange (HIE), which is operated by the Office of Health Information Technology (OHIT) at the Arkansas Department of Health.

SHARE's mission is to advance secure connectivity and serve as a sustainable, interoperable data exchange platform for health-related operations.

SHARE's vision is to provide a mechanism through which individuals, health care providers, and health organizations can electronically share health-related information to facilitate and strengthen the delivery of healthcare throughout Arkansas. This is designed to lead to improved patient care, informed individual health decisions, better public health outcomes, and cost-effective use of healthcare resources. SHARE is expected to achieve broad acceptance, credibility, and access by employing advanced technologies that ensure efficiency, privacy, and security and continuously evolve to serve Arkansans more effectively.

For more information, visit: SHAREarkansas.com to see the more than 70+ Hospitals, over 1,700 Healthcare Organizations, (25) HIE to HIE connections to date, as well as, a LIVE connection to eHealth Exchange and the Patient Centered Date Home (PCDH) initiative under the Strategic Health Information Exchange Collaborative (SCHIEC).

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Justin Villines is an Arkansas native and currently serves as the HIT Policy Integrator/Senior Operations Manager for the State Health Alliance for Records Exchange (SHARE), Arkansas' only statewide Health Information Exchange (HIE). He has 17+ years combined experience in Health Information Exchange, EMR/EHR systems, Public Health and Community Education, practice transformation, healthcare consulting, project management, teaching, and federal/state service. He has extensive knowledge in practice transformation health initiatives and has lead the implementation of Health Information Exchange (HIE) efforts throughout Arkansas, Patient Centered Medical Home (PCMH), Arkansas Lead Accountable Care Organizations (ACO), Clinically Integrated Networks (CIN) and Arkansas Medicaid PCMH program. He also teaches the Masters of Health Administration as an Adjunct Associate Professor at Webster University and the Bachelors of Science in Health Administration at Park University at their Little Rock campuses.

In his previous roles with the University of Arkansas for Medical Sciences he has worked on PCMH transformation, published 7 Patient Centered Medical Home (PCMH) teaching modules for the UAMS Family Medicine Residency programs and as a quality assurance coordinator, evaluated performance improvement requirements for The Joint Commission and The Centers for Medicare

& Medicaid Services. Serving in the US Army for 8 years with two tours in Iraq, he received a Bachelor of Science degree in Management and a Master Degree in Business Administration with emphasis in Healthcare Management. He is presently working on his DrPH in Public Health – Community Health Promotion and Education.

Anne Santifer, Executive Director
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Anne Santifer is Director of the Office of Health Information Technology as of August, 2018. Anne has nearly 10 years of experience in the operations, development, and policy supporting Medicaid quality improvement programs. She is experienced in program management, Value based programs and data and information technologies supporting health care and social service programs. Prior to joining OHIT, Anne served as the assistant director of health care innovations at Medicaid which included the successful Patient Centered Medical Home program.

Adrian Jones, Account Manager
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Adrian Jones is the Account Manager at SHARE. She is responsible for proactively assessing and clarifying customer needs on an ongoing basis. She works collaboratively with SHARE internal teams to ensure implementation and support of SHARE solutions. She received her Bachelors of Science degree from the University of Little Rock (UALR) and her Master's Degree in Human Resources Management from Webster University. She has a strong passion in healthcare and has worked professionally in the industry in various capacities for over 17 years.

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Evidence Based Models (Supporting Community Based Programs and Services) according to: Http://ww.samsha.gov
Treatment Solutions; An American Addition Centers Resource
https://www.samhsa.gov/sites/default/files/programs_campaigns/nitt-ta/2015-report-to-congress.pdf

Evidence Based Intervention and Treatment (supporting ER Diversion Programs)
https://behavioraltech.org/resources/faqs/dialectical-behavior-therapy-dbt/
http://psycnet.apa.org/buy/2011-04924-014Short-term treatment interventions:https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.79.7.843
Naylor Model

Clinical Evidence/guidelines:

Evidence Based Models (Supporting Care Transition Methodologies) and evidence-supported CCM

1. Care Transitions Intervention (Coleman)
2. Transitional Care Model (Naylor)
3. Bridge Program
4. Project Boost (Better outcomes for Older Adults through Safe Transitions
5. Grace (Geriatric Resources)
6. Guided Care
7. Project Red
8. Chronic Care Model

*Evidence based models according to: http://www.aoa.gov

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