



Connecting the health care data dots to improve consumer care



I. Introduction

What was the first “connect the dots” picture you’ve ever drawn? Can you remember the amazement at seeing seemingly random points spread across a sheet of paper coming together to form a complete big picture? Connect the dots pictures are an important experience for young children. And understanding that putting together small pieces of data to gain a better view of the ‘big picture’ is an important life lesson.

It is not just children that benefit from ‘connecting the dots’. Managers in the health and human service field are surrounded by data and data points. But, the connection between these data points to form the ‘big picture’ that is needed for the best outcomes is often not revealed.

For consumers with a behavioral health condition, the ‘big picture’ is often quite complex. Most of these individuals have a range of different clinical needs, developmental challenges, and environmental constraints. It is up to the clinical professional to recognize the resulting complexity (a.k.a. “connect the dots”) across a fragmented health care continuum.

Unfortunately, it is often left to labor-intensive professional collaboration to get that big picture view. But, many organizations are so focused on the core process of providing care, meeting regulatory requirements, reconciling claims payments, and managing operations, that the lesson of connecting the dots learned as youth is put aside and clinical professionals don’t get the benefit of the “big picture.”

However, electronic health recordkeeping solutions (EHRs) with interoperability and data aggregation capabilities are making that possible. Like the pencil we used to connect the dots in drawings as a child, these solutions are helping providers see the “big picture.” The right EHR solution can enable clinical professionals to collaborate ‘virtually’ across an entire healthcare continuum - “connecting the dots” to deliver holistic and high-value care.

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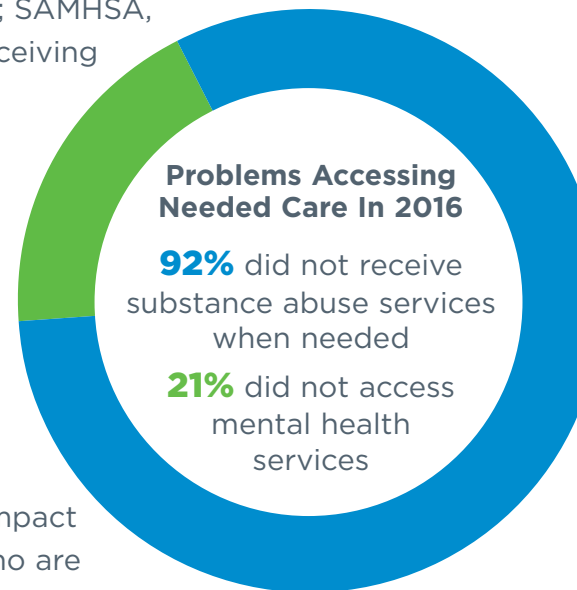
II. The Complex Consumer Landscape

As a behavioral health care provider, you understand the typical consumer does not have a single issue that needs to be addressed but has an array of needs. Managing individuals with complex needs across the behavioral health continuum is more important than ever. With expanding utilization, increasing service gaps, increasing costs, and a fragmented system of care, there is a greater necessity for providers who can demonstrate their expertise by addressing all aspects of a person's mental, social, and physical needs. Doing so will not only improve outcomes across many of these life domains but will also demonstrate the provider's value to make a positive impact on health outcomes across the populations they manage.

Expanding Behavioral Health Continuum Utilization & Service Gaps

Both service need and service utilization are on the rise across the behavioral health continuum. In 2016, 34.4% of adults in the U.S. believed they had poor mental health, with roughly 44 million reporting experiencing mental illness and 10 million reporting serious mental illness (KFF, N.D.; SAMHSA, 2016). However, only 34.8 million individuals reported receiving mental health services in 2016, leaving nearly 9.2 million adults untreated. Even more significant service and utilization gaps exist for Substance Use Disorder (SUD) services. In 2016, 20.5 million individuals over twelve years old reporting having SUD, while only 1.5 million reported receiving treatment in a specialty facility, leaving 19 million needing but not receiving treatment (SAMHSA, 2016).

Beyond the number of individuals that endure with untreated mental health needs, one must consider the impact of undetected behavioral health needs for individuals who are seeking medical attention and the impact on quality and total cost of care. Co-morbid depression is undiagnosed 30% of the time in primary care settings and drives up health care costs. Individuals who have co-morbid depression or anxiety have been found to utilize medical services substantially more than those who do not, and co-morbidity of those disorders result in slower recovery rates and greater likelihood of conditions becoming even more chronic and severe (Hirschfeld, 2001). Studies report that the added medical



costs for individuals with un-diagnosed depression over a two year period averages \$3,386 per case (2009 dollars) in additional health care costs and work absenteeism. Other studies report even higher costs (Melek & Halford, 2012).

Medicaid Home and Community-Based Services (HCBS) for individuals with I/DD have seen increased service utilization and gaps over the past few decades, due to a national movement to transition the I/DD population from institutionalized settings to more community-based treatments.

Roughly 1.6 million people receive HCBS services in the United States every year through 1915 (c) waiver services, and yet the last national count in 2016 reports over four hundred thousand individuals with I/DD were on waiting lists for services. From 2015 to 2016, the number of states with waiting lists for services increased from 36 to 39, and waiting lists for all HCBS services increased from 2006 to 2016 by over 230% nation-wide (O' Malley Watts & Musumeci, 2018).

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Increasing Costs for Behavioral Health

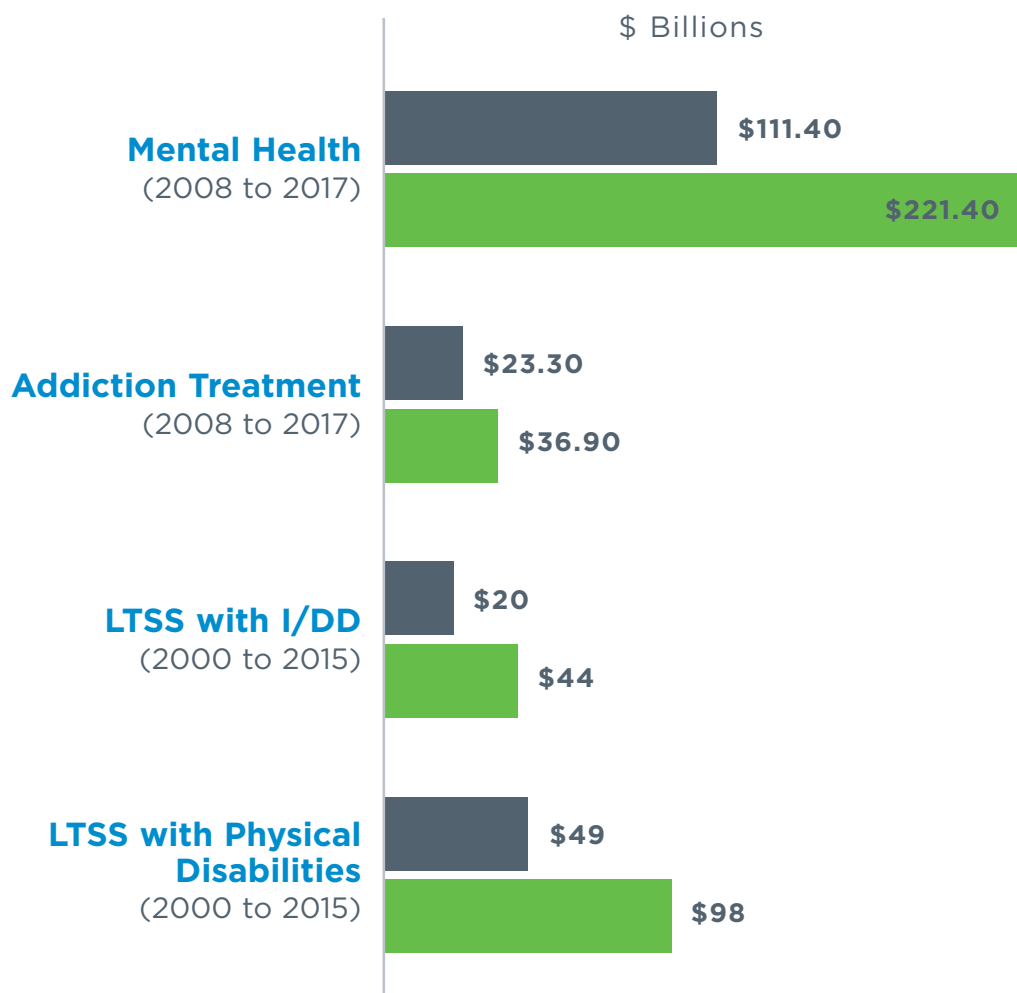
Individuals with complex needs account for the vast majority of health care spending in the United States. In 2014, the National Institute for Health Care Management (NIHCM) Foundation found that 50% of health care costs are attributed to roughly 5% of the total civilian non-institutionalized population (NIHCM, 2017). These top 5% of patients experience a wide range of ailments, but the majority experience co-morbid, chronic, behavioral health disorders, such as mental health disorders, substance abuse disorders (SA), or intellectual and developmental disabilities (I/DD) requiring long-term services and supports (LTSS) (NIHCM, 2017).

Both physical and behavioral health rates of utilization and spending have been on the rise over the past decade. From 2004 to 2014, Medicaid health care expenditures (such as hospital care, physician services, prescription drugs, etc.) have nearly doubled, from \$1.48 trillion dollars to \$2.56 trillion (KFF, 2014).

Behavioral health spending has also increased across the board, with total expenditures more than doubling in mental health (\$111.4 billion to \$221.4 billion) and increasing more than a third in addiction treatment (\$23.3 to \$36.9 billion) from 2008 to 2017 (*OPEN MINDS*, 2018). LTSS expenditures are no exception, doubling from 2000 to 2015 for the I/DD population (\$20 billion to \$44 billion) and the older adults and physical disabilities populations (\$49 billion to \$98 billion) (Eiken, Sredl, Burewell, & Woodward, 2017).

Health Expenditures

BEHAVIORAL HEALTH CONTINUUM



(KFF, N.D.; *OPEN MINDS*, 2018; Eiken et. al., 2017)

III. The “Whole Person Care” Phenomenon

With increasing costs, growing utilization rates, and an ever-expanding need for services across behavioral health and medical care settings, there is more demand than ever to consider an individual’s overall health. Whole Person Care (WPC) is a care model that takes into account the full continuum of an individual’s needs: mental, physical, and socioeconomic. WPC is geared toward reducing costs and improving outcomes by addressing all the needs of an individual through care coordination among providers. The main goal of WPC is to remove data and care silos between physical health, mental health, and social service providers (CAPH, 2017^{1,2}). In 2018, researchers assessed the effectiveness of LifeCourse, a WPC model of care that focuses on care coordination of the following domains: “physical, psychological, social, family/caregiver, cultural, spiritual, legacy/bereavement, end of life, ethical, and financing/legal (Shippee, Shippee, Mobley, Fernstrom, & Britt, 2018).” Researchers found that participants in LifeCourse reported overall positive change in care experience over the course of 6 months (Shippee et. al., 2018).

In a similar WPC pilot study of over 50 patients with a range of co-morbid conditions conducted by the New England School of Whole Health Education, it was found that patients receiving treatment reported (Donadio, 2005):

- 11%** increase in routine sharing of feelings
- 6%** decrease in stress levels
- 22%** decrease in perception that they have a greater tendency to get sick compared to others
- 21%** decrease in expectation of future health decline
- 4%** increase in current health status

WPC not only changes the perceptions of those in treatment, but can improve costs, utilization rates, and service needs across the behavioral health continuum through:

- **Enabling** a comprehensive picture of individual needs to focus on improving their outcomes
- **Facilitating** collaboration between behavioral health, physical health, and social service providers for improved individual quality of life
- **Improve** resource distribution by coordinating effective and efficient data sharing across the care continuum
- **Implementing** structures and protocols to facilitate care coordination among providers for WPC

For lasting, quality treatment outcomes, consideration of all aspects of an individual's health is critical. Providers who can incorporate WPC principles of collaboration and information sharing will be in the best position to address growing service needs and drive improved outcomes. However, many behavioral health providers experience challenges implementing such collaborative systems.

The main goal of WPC is to remove data and care silos between physical health, mental health, and social service providers

IV. The Challenges To Delivering “Whole Person Care”

Populations served across the behavioral health continuum tend to experience multiple health disorders simultaneously, making “Whole Person Care” treatment by providers difficult for individuals with complex needs. A number of key challenges have been identified that impact the ability of providers to meet the needs of their clients:

- Environmental challenges that impact the ability of providers to meet the demand of services for a population with complex needs
- Technology barriers that impact a provider’s ability to coordinate care and share data across the care continuum
- Reimbursement challenges stemming from the inability of many billing and EHR systems to accommodate new payment models

Environmental Changes Impact Providers’ Ability To Meet Demand

From 2010 to the summer of 2014, over 8 million new people registered for insurance through the Affordable Care Act (ACA) health insurance marketplace. The Substance Abuse and Mental Health Services Administration (SAMHSA) estimates over 22 million uninsured people who have behavioral health needs may still be eligible for health insurance under the ACA. States also report large increases in Medicaid and Children’s Health Insurance enrollees across the nation, with millions of individuals enrolling each year and reported increases of over 12% in average monthly enrollment (SAMHSA, 2017). One-fifth of households in the United States have a child with special health care needs, and of those children it is estimated that 25% have a mental health disorder (Chandra & Lurie, 2008). With the trend of insurance becoming more readily available and accessible to individuals across the nation, mental health and substance use disorder service needs have increased, with providers finding difficulty in keeping up with demand (SAMHSA, 2016).

Changes in the I/DD and LTSS insurance market have also pushed behavioral health providers to increase service offerings and revise service strategies. The Centers for Medicare and Medicaid Services HCBS Final Rule changed the requirements for community-based services for individuals with I/DD across the nation, and many states are rolling out plans to implement more community-focused, integrated collaborative care models (O' Malley Watts & Musumeci, 2018). An example of challenges to meeting service need and provider collaboration can be seen across the nation with the treatment of individuals with Autism Spectrum Disorder (ASD). ASD is one of the fastest growing developmental disabilities, with prevalence increasing by 119% from 2000 to 2010 (CDC, 2016; CHP, 2016). Of children with ASD, 38% are estimated to have an intellectual disability, and 24% are estimated to be borderline with IQs of 71 to 85. Although the rate of individuals with a co-occurring intellectual disability is not rising at the same rate as those with just ASD, they are still increasing at a pace that may create challenges in meeting the complex needs of the population for provider organizations (CHP, 2016).

With the influx of individuals who have the coverage to receive treatment, there is an insufficient workforce available to meet demand across the behavioral health continuum. A prime example can be found by looking into the mental health care field. As of 2016, 28,250 psychiatrists - or 8.9 psychiatrists per 100,000 population - were in active practice in the United States (Merrit Hawkins, 2015). Thirty-nine percent of all psychiatrists currently reside in California, Texas, New York, Florida, and Pennsylvania, and across the nation the U.S. Department of Health & Human Services has identified that only 32.52% of mental health care professional needs are met (Merrit Hawkins, 2015; KFF

Collaborative care across systems is critical to drive resource and staff efficiency and improve treatment outcomes, however, it is significant challenge when patient demand is so high and the supply of clinical professionals is so low.

N.D.c). These shortages create a lack of access to psychiatric care and adds greater burden to primary care physicians to fill the gap.

Shortages are expected to continue growing as more than 59% of current practicing psychiatrists were age 55 and over as of 2015 (Merrit Hawkins, 2015). In a competitive recruitment market, behavioral health providers face great challenges in maintaining an adequate workforce to meet the needs of complex populations. Collaborative care across systems is critical to drive resource and staff efficiency and improve treatment outcomes, however, it is a challenge when patient demand is high and the supply of clinical professionals is low.

Technology Barriers

Advances in technology have greatly increased the ability of providers to share data and coordinate care across the health care continuum, and technology has also become more widely available in the last few years. Yet, organizations delivering behavioral health services have lagged behind those in physical health care with respect to the adoption of technology to support care.

Unique barriers exist for providers within this service area (SAMHSA, 2017a, 2017b):

- Behavioral health providers have not been included in incentive programs which have encouraged physical health providers to utilize newer technologies (SAMHSA, 2017)
- Mental health, substance use disorder, I/DD, and LTSS providers have lacked the financial and staffing resources to implement electronic health records and other technology solutions
- The behavioral health workforce lacks the knowledge and training to use technology solutions effectively
- Conflict between capabilities of technology and patient privacy regulations (i.e. 42CFR Part 2) and consent requirements
- The inability of many health record systems to communicate and interpret data from disparate systems

SAMHSA has made support available for organizations to bridge the technology gap to address adoption challenges including financial grants, technical assistance and training supports, information, and resources (SAMHSA, 2017a). However, many behavioral health organizations continue to experience barriers to implementing complex health information technology systems.

Reimbursement Challenges

In addition to access and technology barriers, few incentives exist to promote integrated care and help providers and their patients “connect the dots.” While CMS did begin to reimburse for collaborative care models in January 2017 and has subsequently expanded payment to previously excluded organizations such as Federally Qualified Health Centers (FQHCs) and Rural Health Centers (RHC), these provider types have had only a few months to avail themselves of these payments models or may not have the infrastructures to support what is needed. While Primary Care Physicians (PCPs) have been able to seek reimbursement by using certain service codes for a little over a year now, use is still low and payers have yet to promote their use widely. As is typical with new codes, adoption often lags while providers prepare their billing systems to accommodate new payment models. Two state Medicaid programs have adopted these codes—Virginia and Washington—but others are anticipated to follow suit.

The collaborative care model (also known as Behavioral Health Integration--BHI) rewards PCPs for using a treatment team approach to identify and treat patients with co-morbid behavioral health conditions, leveraging the support of a psychiatrist (often engaged in a HIPAA-secure virtual modality offering consultation to the PCP on the most complex cases) and an embedded care manager (often part-time) to support care coordination. This team (led by the PCP with support from the care manager and psychiatrist) assures an initial assessment, care planning, and ongoing follow-up is documented through a registry using validated rating scales. The model was intended to improve outcomes for individuals with comorbid conditions and address the workforce shortage of psychiatrists while assuring patients with complex mental health conditions are receiving high quality and effective treatment. Medicare reimbursement varies for the applicable codes but ranges from \$62- \$150 per case per month; treatment, on average, is around 9 months.

The challenges providers face implementing the structures and processes to support the intended outcomes of whole person care models include: establishing relationships with the psychiatrist and embedded care manager, setting up the technology infrastructure (telehealth as needed), updating billing systems, training staff, implementing new workflows to assess and refer, and, most importantly, capturing the appropriate data in their EHR to track patient outcomes and support billing for integrated models.

To fully facilitate whole person care, providers must have the ability to:

- Identify target populations within their service continuum and community who are vulnerable, such as high users of multiple systems, individuals with chronic, co-morbid conditions, and those with complex socio-economic, behavioral health, and physical health needs (CAPH, 2016).
- Develop leadership structures focused on collaboration across entities within the spectrum of care focusing on a common goal (CAPH, 2016).
- Coordinate services and care across the continuum to ensure effective and smooth transitions for the target population (CAPH, 2016).
- Implement data sharing that is “interoperable” – spanning across partnering organizations, regardless of sector, to facilitate appropriate access and coordination of care (CAPH, 2016).

The challenges facing service providers of a growing population with co-morbid and complex needs, from changing environments and technology barriers to reimbursement issues, can appear daunting. Luckily, many of these challenges can be effectively managed through the use of interoperable technology solutions to enable sharing data for treatment and effective coordination.

V. Interoperable Systems Can Improve Care Coordination

Technology solutions can come in many different forms to support communication between entities, either being interoperable or intraoperable.

- **Intraoperable systems** exchange data between providers, usually developed by the same technology vendor, and are generally between systems that are very similar or the same. An example of this type of system would be a health system or provider who implements a single Electronic Health Record (EHR) across all their service sites, enabling information sharing across sites or providers within their system, but none outside.
- **Interoperable systems** have the ability to exchange data and use data that has been exchanged within and across organizational or health system boundaries regardless of provider type or system vendor (HIMSS, 2018).

Having an *interoperable* technology solution can facilitate greater effectiveness and increase a provider organization's ability to share and receive data from others to connect the dots. With the ability to communicate with other care providers for complex patients regardless of service area, interoperable solutions can impact care coordination within the Whole Person Care continuum by improving:

- Communication through breaking down service silos across the care continuum and enabling real-time patient analytics
- Service delivery through improved efficiency and access to data necessary to make informed treatment plans
- Outcomes through providing greater understanding of current treatment and service gaps

Improved Communication

Interoperable systems can greatly improve communication across the care continuum. In 2016, Ventura County in California identified problems impacting the ability of providers within the county to give complex patients, high utilizers of inpatient and emergency department services, with services they need. The major issue found was the lack of communication between care providers for individuals with complex needs. This resulted in services that were siloed and unknown to other care providers for an individual, services duplicated by multiple providers, and a lack of consistent data across providers (CAPH,

2016). Two core properties necessary for interoperable technology solutions to function are data standardization and a common rule of communication (Park, 2014). Implementing such a system would facilitate both communication and care coordination across providers by giving access to data that is curated in real-time. This enables integrated care and significantly improves whole person

care coordination for providers in a number of ways:

- Access and share information with a primary care provider to better inform treatment plans
- Coordinate care across all levels, from physical health to community resources
- Facilitate access to services that impact an individual's social determinants of health, improving both physical and mental health conditions. (CAPH, 2017)
- Enhance both the quality and the efficiency of service delivery, as well as reduce the amount of inaccuracies and incompleteness of patient information (SAMHSA, 2017).
- Provide quicker access to health records and important data that could have an impact on treatment plans regardless of facility type or location (SAMHSA, 2017)

Improved Service Delivery

Interoperable technology solutions can increase the efficiency and effectiveness of service delivery. They enable data aggregation for individuals receiving care and provide real-time patient level analytics for care teams (Miriovsky, Schulman, & Abernethy, 2012). By utilizing data that is curated in real-time, providers across the care continuum can determine the most adequate and effective treatment strategies. In addition, real-time data sharing facilitates the smooth transition of services, removing the need to collect data that has already been captured by another provider and making the referral process more fluid. Providers are able to coordinate service delivery, aligning resources and individual treatment plans across the continuum of care (CAPCH, 2016).

Improved Outcomes

Many behavioral health providers experience issues similar to Ventura County when providing care for individuals with complex needs, impacting outcomes. In 2016, the city of San Francisco identified that of the homeless population within the city, a large number experience co-morbid conditions and were utilizing multiple systems throughout the area, such as social services, mental health, substance abuse, and physical health. The major issue identified by the city of San Francisco was the lack of real time coordination of services across organizations from different sectors. San Francisco planned to utilize an interoperable technology system to provide real-time data analytics linking information across agencies and sectors for monitoring and analysis, as well as utilize data for care coordination and risk assessment of individuals within the system (CAPH, 2016). Interoperable systems can improve outcomes by facilitating the prevention of duplicative tests through sharing patient information, removing care silos, and ensuring consistent data across the care continuum (CAPH, 2016). Such systems enable organizations to view data on those within the complex care population that are most at risk and coordinate appropriate interventions, ensuring quality outcomes (Park, 2014).

When interoperable solutions are employed effectively and vital data points for an individual are shared, providers greatly improve their ability to coordinate care across the entire continuum of care. Organizations that utilize data will improve communication, service delivery, and outcomes, and they will also experience greater business success.^{3, 4}

VI. Interoperable Technology Solutions Can Improve Business Results

Organizations that utilize interoperable technology solutions can experience a number of benefits outlined previously, such as improved medication adherence and patient safety, more effective disease management, reduction of redundant services, reduction in improper service utilization, and much more (Shekelle, Morton, & Keeler, 2006). By “connecting the dots,” behavioral health providers utilizing interoperable technology solutions can improve business results by ensuring that they are leveraging technology to:

- Ensure they are viewed as a key link in the value chain for physical health providers when behavioral health care issues need to be addressed in a fully integrated physical/behavioral health care plan.
- Guide service expansion and growing revenue through high-level analysis of the data gathered from across the entire continuum of care.
- Build upon current referral bases through the fostering of relationships created by sharing data.
- Use the efficiency and insights gained to guide service delivery and reduce costs.
- Utilize new technology infrastructure and capabilities to increase patient engagement and exposure within the community.

A Key Link In The Value Chain With The Physical Health Community

Behavioral health organizations that utilize interoperable technology solutions establish themselves as a key link in the health care value chain within their communities. Technology's ability to enable improved care collaboration will facilitate decreased costs and better outcomes for individuals with complex needs.

CASE EXAMPLE:

A rural Federally Qualified Health Center established a formal memorandum of understanding with key behavioral health, IDD, and substance use disorder providers to assure coordination of care for patients with complex and comorbid conditions that required additional expertise and consultation. Using interoperable technology, the treatment team comprised of FQHC and other virtually supported specialists was able to collaborate across space and time, including sharing key assessment tools to assure prompt and streamlined access to patient evaluations, social determinants of health, treatment plan goals, and progress notes to coordinate interventions.

Service Expansion To Greater Address Community Needs & Facilitate Revenue Growth

Interoperable technology solutions can give behavioral health providers access to data that provides a comprehensive picture of individuals' needs across a system of care. At a higher level, insights can be used to shift strategies to address the needs of the community and grow service line offerings that are most applicable.

Broaden Referral Base

By utilizing technology solutions that promote and facilitate data sharing across the care spectrum for those they serve, behavioral health providers are able to share service offerings and outcomes with physical health and social service organizations. Through these collaborations and improved outcomes for patients, referrals from providers and the community are likely to increase.

Reduce Costs

Data shared through interoperable technology solutions can be leveraged to improve efficiency and effectiveness of care practitioners by ensuring more comprehensive clinical information and decision supports are in place. This effectiveness, as well as the reduction of repetitive services performed by other providers within the system can provide substantial savings to organizations (Shekelle et. al., 2006).

CASE EXAMPLE:

An ACO identified a high cost, high risk patient cohort of individuals who suffered from trauma in childhood or early adulthood. Through the power of the interoperable EHR and collaboration with a variety of social service agencies, the ACO was able to identify a clinical pathway that improved patient outcomes, reduced healthcare costs and ultimately led to a new evidence-based clinical service line that became a national center of excellence for trauma-informed care.

CASE EXAMPLE:

Leveraging member-reported outcome data embedded in the interoperable EHR, a large 2000-bed multi-state behavioral health inpatient and residential system worked with local PCPs and regional ACOs to develop relationships, illustrating impact on important quality metrics – lower recidivism rates, higher patient engagement—which resulted in enhanced contracts and relationships that increased referrals by 25%.

CASE EXAMPLE:

A large, regional hospital system used EHR data to identify outlier cases that were negatively impacting revenue management for case rate contracts. By using the EHR to identify early warning triggers for length-of-stay outliers, the hospital system was able to more quickly launch interventions that not only reduced cost per case but also improved patient satisfaction and quality outcomes.

Improve Patient Engagement Through New Technologies & Infrastructure

Through the collection of personal health data enabled by newer technologies (such as smart watches, mobile applications that track eating habits, sleep patterns, activity levels, etc.), both physical and behavioral health providers can gain valuable insights into an individual's overall well-being. Individuals participating in this type of data tracking may also experience greater engagement in their treatment and facilitate improved provider-patient relationships (Appleboom et al., 2014). By tracking vital health information, providers can adjust treatment strategies for individuals with chronic health conditions, improving case management effectiveness and health outcomes.

CASE EXAMPLE:

A Medication Assisted Treatment (MAT) provider uses data from wearable devices to determine patient compliance with treatment goals and leverages real-time alerts to help intervene as needed based on the data. Data compiled from the wearable devices in combination with other data housed in the EHR (lab tests, assessment results, etc) is used to provide patient feedback on goal achievement, recovery progress, coping skill development and to trigger appointment follow-ups.

Data That Matters

Provider organizations utilizing interoperable technology systems must ensure data elements that are most impactful to an individual's health and well-being are shared between all participating providers so the most complete picture of the person is available and the greatest business successes can be realized. Important data elements to include are:

- Advance directives to ensure all providers across the continuum have the most recent wishes of their clients
- Allergies and alerts to ensure that the most up-to-date client information is readily accessible and can be taken in to account when providing unique treatments
- Assessments and treatment plans to enable all providers to collaborate and build upon treatments in place for greater outcome success

- Unique individual conditions or problems that may be impacting an individual to ensure proper care is coordinated across the continuum
- Demographic information to facilitate ease and speed of care coordination and referrals
- Number of encounters so providers can track how many times an individual has visited other providers and to assess whether follow up or additional interventions may be required to assist with an individual's needs
- Family history to inform care providers of familial tendencies and to promote a better sense of an individual's needs
- Immunizations to ensure they are up-to-date and if follow-up is needed from case managers or other care coordinators
- Medication information to ensure prescribers have a complete picture of what has been prescribed and to ensure the future prescribing of effective and complimentary medications
- Procedures to promote collaboration among providers and ensure a smooth transition of care
- Provider reports to inform care team members of important information that has been captured by other practitioners to inform better care
- Results from other providers to signify important milestones and adjust treatment plans when necessary to ensure facilitation of quality outcomes
- Social history to ensure providers have the most up-to-date knowledge of an individual's social needs to ensure proper supports can be implemented if needed
- Vital signs across the care continuum to ensure collaboration and coordination of health interventions that may be necessary for individuals with chronic conditions and disease management needs (collected through wearable smart technology and mobile applications)

VII. Conclusion

By adopting interoperable technology solutions, behavioral health providers can gain a number of benefits and insights for improving their practice and business outcomes. With the use of a health technology solution that collects data and promotes interoperable collaboration across the entire health care continuum, service need and utilization gaps can be addressed, costs can be managed more effectively, and providers can contribute to more healthy communities. Within the current market landscape, there are an abundance of consumers with complex needs. Organizations that successfully leverage interoperable technology solutions can become a leader of care coordination and “Whole Person Care” to bring value to the community they serve and gain competitive advantage. Investing in an interoperable information system will not only “connect the dots” for Whole Person Care but will also be a savvy business decision that will likely result in future success in a more complex market.

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