Data-Centered Collaboration to Support High Utilizers: Lessons from Sonoma County

CASEY CONEWAY, MPP
SANTA CRUZ COUNTY

EXECUTIVE SUMMARY

Accessing Coordinated Care and Empowering Self-Sufficiency (ACCESS) Sonoma is a multi-agency partnership that facilitates case planning for high utilizers of multiple Sonoma County services. The key innovation of the partnership is its integrated, cloud-based IBM data system that merges client data in real-time to generate a holistic client summary from county systems related to healthcare and social services, benefits and income assistance, housing and homeless services, and criminal justice. This data system is the lifeblood of ACCESS Sonoma's interdepartmental multi-disciplinary team (IMDT), which brings together staff from different sectors to manage case plans for clients with complex needs. Though it has come at significant expense, the program has led to greater multi-agency collaboration, streamlined case management services, and helped facilitate outreach to over 8,000 people. This study offers insights for Santa Cruz County as it contemplates its own possibilities for interagency coordination and data integration.

Case Coneway, MPP, Senior Human Services Analyst, Santa Cruz County Human Services Department, Business Analytics Unit

Introduction

Over the last few decades, Health and Human Service Agencies across the United States have become increasingly aware that a small percentage of the population consumes a disproportionately large quantity of public resources. Studies of so-called "high utilizers" in the healthcare sector, for example, have estimated that 1% of the US population accounted for a quarter of national healthcare expenditures[1]. From the perspective of county governments, however, the top 1% of service utilizers often have needs that require coordination among multiple sectors, such as healthcare and social services, benefits and income assistance, housing and homeless services, and criminal justice.

A 2020 study estimated that high utilizers accounted for over 10% of Sonoma County's budget from 2014 to 2018, 28% of the county's behavioral health budget, 52% of total shelter occupancy, and 26% of total jail days[2]. Yet coordinating services for this population has been hindered by structural barriers and information gaps. County departments and community-based organizations lack the authority and capacity to share data and discuss case plans with each other on behalf of common clients (i.e., the "silo" problem). Furthermore, the state and local funding structures are designed to pay for services within departments and programs, which incentivizes fragmented planning rather than leveraging resources across departments. Consequently, high utilizers often cycle through a loosely coordinated patchwork of services without achieving long-term well-being and stability. To address these challenges, some county governments have organized efforts to promote cross-agency data sharing and case planning[3].

In Sonoma County, safety net administrators pursued these strategies through a program called Accessing Coordinated Care and Empowering Self-Sufficiency (ACCESS) Sonoma. This case study examines the ACCESS Sonoma model and offers insights and recommendations for Santa Cruz County as it considers similar efforts to integrate data systems and better serve its highest utilizers.

Creation and Design of ACCESS Sonoma

In the aftermath of the 2017 Tubbs Fire, thousands of Sonoma County residents lost their homes or were otherwise displaced for months, if not years. This disaster, and its extensive recovery period, underscored the need for better coordination across county services for the high-needs population residing in county emergency shelters. The Sonoma County Safety Net Collaborative (Collaborative)—a consortium of county department directors—responded to this need by creating ACCESS Sonoma to promote multi-agency data sharing and case planning[4].

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[1] Cohen, S.B. (2014, October). Statistical Brief #455: The Concentration of Health Care Expenditures and Related Expenses for Costly Medical Conditions, 2012. Agency for Healthcare Research and Quality. Retrieved from: https://meps.ahrq.gov/data_files/publications/st455/stat455.pdf

[2] Augustine, E. & White, E. (2020, July 7). High Utilizers of Multiple Systems in Sonoma County. California Policy Lab. https://www.capolicylab.org/high-utilizers-of-multiple-systems-in-sonoma-county

[3] Bodenheimer, T. (2013, October) Strategies to Reduce Costs and Improve Care for High-UtilizingMedicaid Patients: Reflections on Pioneering Programs. Center for Health Care Strategies, Inc. Retrieved from: http://www.chcs.org/media/HighUtilizerReport_102413_Final3.pdf

[4] Departments of the Safety Net Collaborative include Health and Human Services, housing, child

The Collaborative thought it essential for staff working with clients with complex needs to have direct access to client data from all relevant sources in real-time, and that such data should be integrated into a formal process for case planning across agencies. They believed that this type of arrangement would lead to smarter case planning and quicker action on behalf of clients served by multiple agencies, leading to better outcomes and lower administrative costs for the county.

Since its inception, ACCESS Sonoma has been housed within the county's Department of Health Services. It is led by a manager and support staff who facilitate weekly two-hour-long meetings with the interdepartmental multi-disciplinary team (IMDT). The IMDT is composed of case managers and other frontline staff from multiple county safety net agencies who collaborate on case planning for a cohort of clients with similar needs. After launching the first IMDT cohort of Tubbs Fire evacuees in 2017 through 2018, the Collaborative turned its attention to the development of ACCESS Sonoma's integrated data system.

Integrated Data System

ACCESS Sonoma uses a cloud-based data system called Merative Integrated Care Manager that is adapted from a similar system developed by IBM for San Diego County (initially called IBM Watson Care Manager). The heart of the system is the IBM Connect360 "data hub" that merges client data from the county's various back-end data systems (e.g., CalWIN for income and benefits services). IBM's algorithms match clients across data systems, reconcile conflicting data records, and create a master client index record for each client. The initial configuration of the data hub took five months and gathered 90,000 clients from benefits and eligibility (CalWIN), probation, substance use, and mental health diagnosis and treatment data systems.

Merative Integrated Care Manager can retrieve any IMDT client's records from the data hub to generate an interactive client profile page accessible to IMDT staff assigned to the client. Staff can then log into Merative to review the client's current history, document goals, and other notes. A client's summary page shows their demographic and contact information, program enrollments, safety concerns, diagnoses, protective factors (e.g., education, income, employment), probation and jail history, case goals, action items, members of the client's care team, and other notes.

The county's Information Systems Department and Health Care Privacy Director developed Memoranda of Understanding (MOUs) to authorize the sharing and use of data between agencies. Currently, the system administrator and client case managers are the only staff permitted to manage client data and view client notes in Merative Integrated Care Manager. Lead care managers determine what elements of the client record are visible to other staff depending on the needs of the client, sensitivity of the information, and departmental policy. The MOUs also require a Release of Information (ROI) form signed by the client to join an IMDT cohort. This form explains that personally identifiable information (PII) will be shared among over 50 partner agencies (governmental and non-profit) and may include records related to law enforcement and court records, behavioral health, housing, and other areas. The ROI authorizes Merative to access the data hub and create a client record that

welfare, public defender's office, district attorney, probation, law enforcement and information systems.

IMDT staff will use for case management. ACCESS Sonoma leadership reports that the requirement to sign the release form has not been a significant barrier in persuading clients to join an IMDT.

In addition to the case management functions of the system, Merative Integrated Care Manager includes search and query features and a reporting dashboard. For example, a user may create a list of criteria to build a list of potential clients for a cohort. Dashboard reports show summary data on various client attributes, service areas, and levels and types of needs. IBM representatives report that they are currently developing new features, such as the ability to compile data for grant reports, identify consistent patterns across cohorts, and the creation of a client success checklist.

Funding

ACCESS Sonoma required substantial upfront funding to pay for the development of IBM Watson Care Manager, now Merative Integrated Care Manager. The county estimates the total cost of integrating the first few county data systems and creating the cohorts across 2018 to 2021 was close to $8 million; an additional $3-4 million in costs were added in recent years to add new data sources and IMDT cohorts. Ongoing costs include an annual licensing fee of $500,000 and costs related to customizing the system to add new functionality (about $1 million per new client cohort, typically). Overall, the funding to date for ACCESS Sonoma has been split evenly between external grants and local sources. The largest grants come from private foundations and the federal government, such as a recent $1.6 million grant from the Substance Abuse and Mental Health Services Agency (SAMHSA). Local sources include a blend of county funds, including in-kind contributions, allocated from safety net departments.

Current IMDT Process

IMDT meetings are held by video conference every Wednesday for about two hours under the facilitation of the IMDT program manager. These meetings typically gather close to 50 frontline staff to review the status of 25-50 clients and engage in case planning and problem-solving to make progress toward clients' goals. Staff discuss progress or setbacks experienced by their clients since the last update, and are encouraged to raise questions and offer support for other staff and clients.

Department managers in the Safety Net Collaborative select which frontline staff attend IMDT meetings, which typically includes health clinicians, housing specialists, adult and child protective services workers, probation officers, and eligibility workers. Early on, ACCESS Sonoma management decided not to include representatives from the district attorney's office and the sheriff's office in IMDT meetings and coordination to allay concerns among clients about the information shared with those offices.

As of April 2023, ACCESS Sonoma has operated eight IMDT cohorts (with start dates): Emergency Rapid Response after Tubbs Fire (2017), Emergency Department High Utilizers (2018), Whole Person Care Community Support, Enhanced Care Management and Outpatient Services (2019), Homeless Encampment Access & Resource Team (HEART) (2019), Mental Health Diversion (2020), Covid-19 Vulnerable (2020), Jail & Emergency Department Re-Entry (2021), and the Transitional Age Youth Cohort (in development, 2023).

Outcomes & Challenges

The most immediate outcome of ACCESS Sonoma, as cited by leadership and staff, is

the enhanced quality and efficiency of their case planning. Access to multiple sources of client data and weekly scheduled meetings with representatives from other agencies enable IMDT case managers to harmonize their case planning and help clients to reach their goals. Additionally, Merative Integrated Care Manager provides staff with a holistic view of their clients with a degree of depth, detail, and timeliness that was previously not possible.

These innovations have enabled ACCESS Sonoma to contact over 8,000 at-risk people and engage over 800 people in case management activities such as assessments, referrals, and direct services, over its seven-year history. Though it is not known exactly what percentage of this population were among the county's top 1% of utilizers, the county reports that 85% of program participants received behavioral health and social services, and that hospital costs for high utilizers of the emergency department have dropped 32% since the program began. Moreover, 512 participants have obtained shelter and 177 have obtained permanent housing. Nevertheless, despite these totals, Sonoma County's homeless point-in-time counts have showed little improvement in sheltered or unsheltered homelessness since 2017[5]; a trend consistent with nearly every other county in the Bay Area over the same time period.

ACCESS Sonoma managers and staff cite ongoing challenges related to the sustainability, scale, and staffing of the program. First, the county lacks a dedicated funding source large enough to sustain and grow the program over the long term. Each year of the program, the Health Services Department has developed an ad hoc financial plan to cover the county's contract with IBM for additional cohorts and data sources, in addition to the $500,000 annual licensing fee. They have typically weaved in matching funds and in-kind contributions (i.e., labor hours) from county agencies (e.g., Human Services, Health Services, county general fund), and received grants from foundations, the state, and federal government. For these reasons, the program remains vulnerable to reductions in funding and is dependent on the confidence and support of the Board of Supervisors.

The second challenge is enlarging the scale of the program to serve more people. Merative Integrated Care Manager contains the records of almost every person served by county Health and Human Services and therefore has the capacity to support case management for thousands of additional county residents. The program has not yet formalized a plan to expand the system's reach to support many people whose needs may not make them eligible for an IMDT cohort, though the Collaborative is exploring options for a non-cohort-based model of service.

Another challenge to bringing the program to scale is adding new Community-Based Organizations (CBOs) to the ACCESS Sonoma partnership network. The required client ROI form currently includes a list of over 50 organizations with whom a client's information may be shared. When ACCESS Sonoma seeks to add a new organization to the partnership, it must obtain a new consent form from every current IMDT client, a highly burdensome task.

Finally, the program has faced difficulties with implementation recently due to staffing shortages and high turnover; a situation many counties have faced since the pandemic. This has disrupted IMDT

[5] Applied Survey Research. County of Sonoma 2022 Point-In-Time Count Results. p. 11. Retrieved from: https://sonomacounty.ca.gov/Main%20County%20Site/Development%20Services/CDC/Homeless%20Services/Homeless%20Data/County%20of%20Sonoma%202022%20Point-in-Time%20Count%20Results.pdf

meetings and case management, requiring more involvement from departmental managers to pick up the slack.

Recommendations for Santa Cruz County

In recent years, the County of Santa Cruz has taken significant steps to address its population of high utilizers with complex needs, particularly those experiencing homelessness or housing instability. In 2020, the county created the Housing for Health division within the Human Services Department, and in 2022 the county's Health Services Agency started a multi-agency collaboration called Healing the Streets, which provides case management services for people with acute housing and health needs. Healing the Streets builds on a previous multi-agency initiative called Homeless Outreach and Proactive Engagement Services (HOPES), which, like ACCESS Sonoma, was based on a multi-disciplinary team format but was not coupled with an integrated data system. However, the county recently received a grant from the California Department of Health Care Services to conduct an inventory and assessment of departmental data systems, to determine if, and how, the county should pursue a system of "one person, one record."[6]

Given the resources the county has committed to supporting people with severe health and housing needs, it is worth considering the key steps and implications of developing a model of service centered on an integrated data-sharing system. The following recommendations for Santa Cruz County are based on Sonoma County's experience in this arena.

- **Assemble the leaders of the county's departments that interact with high needs residents and consider the value and feasibility of an integrated data system.** Sonoma County's Safety Net Collaborative assembled nine department heads to develop an interdepartmental approach to coordinating care for the county's most resource-intensive residents. This collaborative approach united county leadership around a shared strategy, and a set of recommendations, to gain the support of the Board of Supervisors.

- **Designate a person with knowledge and authority to be the champion for a multi-agency initiative.** Strong leadership was integral to moving the ACCESS Sonoma initiative forward in the early phases. The county's former Director of Health Services (2016 to 2021), who also served on the Collaborative, is credited with playing a critical role in the creation and design of ACCESS Sonoma. Current leadership at Sonoma County report that the director's vision, persistence, and depth of knowledge surrounding the health, homeless, and emergency service sectors proved valuable in piloting the first few years of ACCESS Sonoma.

- **Address the risks and concerns that department and division directors will have about sharing data.** In Sonoma County, the county's Information Systems Department and Health Care Privacy

[6] This grant is funded by the DHCS PATH CITED initiative, which "provides funding to enable the transition, expansion and development of Enhanced Care Management and Community Supports capacity and infrastructure."

Director worked carefully with each county agency and IBM to create an overall data-sharing and privacy policy, and then wrote MOUs and ROIs to codify data-sharing policies among specific agencies and clients. This is especially critical for the inclusion of more sensitive data such as substance use and mental health diagnosis and treatment.

- **Estimate the scalability and sustainability of any new data system.** Sonoma County has spent nearly $6 million in local funds, plus another $6 million in grant funds, to implement ACCESS Sonoma and Merative Integrated Care Manager, which has been used to provide direct services to less than 1,000 people since 2017. Though ACCESS Sonoma will likely serve many additional people in the coming years, its long-term funding and plans are unclear. Before committing to a new service planning model and data-sharing system, Santa Cruz County should rigorously weigh the potential scale and sustainability of any endeavor against the sizable financial investment and staffing demands.

- **Develop a long-term plan that includes measurable goals and an evaluation of outcomes.** A new service planning and data-sharing model should be organized around a long-term plan that defines successful implementation and results. The plan should state the specific groups of people expected to benefit from the model, its budgetary impact, and administrative changes expected to result, along with a methodology for assessing progress and outcomes. An evaluation using a quasi-experimental design, or a case-control study of outcomes based on program participation, would be a useful way to analyze the impact of the program, and thus demonstrate its value to the Board of Supervisors and other potential funders.

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