

Supporting Wraparound Implementation: Chapter 5e.2

Building Databases and MIS to Support Wraparound Implementation

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In Wraparound Milwaukee, the development of our current MIS system began after a number of years of using numerous stand-alone databases to support the project. These included, for example, a separate database for maintaining demographic and enrollment information, a leased software program for service authorizations and payments, and Milwaukee County's mainframe for check writing. None of these data were integrated, nor did the majority of our stakeholders have any access to the data. Most of the information was entered by a very large finance staff from paper documents faxed, mailed, or hand-delivered by care coordination staff. In all, thousands of pieces of paper were processed every month. The data were purely maintained to support business functioning—enrollment, demographic, and financial. There was no technology to support our real focus—serving families and providing care coordination services. In 1999, we decided that we needed to develop a system to integrate our existing business data as well as to support families and care coordinators.

Our first step in undertaking this was to identify our consumers. The primary consumer of data in a wraparound model should always be the families. Whether or not families directly enter or edit data, the information available must be able to be presented in a family-friendly manner, and should be used to enhance the quality of care for families. Care coordinators will likely be the primary users entering data into the system, so ease of use, integration of data and system support will be important to them. Supervisory and program management staff need to use the data to support day-to-day functioning and monitoring of outcomes.

For these users, the reporting capability of the system is their primary need. Funding sources and evaluation staff also need access to the data, and their concerns will be the reliability of the data and timeliness of information. Meeting the needs of this disparate group of users can be a difficult balancing act.

After identifying who our consumers would be, we contracted with a software development firm, Stratagem, Inc., and began development in June of 1999. By December of that year, we had a working system. How was this possible? First and foremost, we had clearly-identified business processes in existence already. Second, we clearly outlined the scope of the project at the outset and stayed within those boundaries during initial development. Also, two individuals were identified—one from the development team and one from Wraparound Milwaukee's management team—to serve as liaisons between development and program staff, and we empowered those individuals to make independent decisions.

The Synthesis System

The software that Wraparound Milwaukee developed is called Synthesis. As our user base is geographically dispersed, we developed Synthesis as an internet-based software. Initial development focused on integrating three main areas: enrollment and demographic data; contract and service data; and the plan of care process. All three areas were developed simultaneously, and released in December, 1999. Since that time, development has continued. We have revised the plan of care module several times, incorporated progress notes, an on-line resource guide for both paid and community supports, evaluation tools and juvenile justice information.

The main components of Synthesis, and their primary uses, are outlined in the following sections.

1. Demographic / Enrollment Data

- Basic demographic information—including DSM diagnostic information—allows us to report on our population to the community.
- Placement data helps us monitor youth in out-of-home care, and provides a mechanism to evaluate how well the program is doing to meet its goal of maintaining children in the community.
- Financial components to each enrollment allow us to track Medicaid eligibility, payor source (child welfare and/or juvenile justice) and outstanding payments from these entities, ensuring that we are properly reimbursed.
- Satisfaction survey data is used to enhance quality of care for families and quickly identify potential areas of concern.
- An on-line child and family team list allows us to monitor the inclusion of formal and informal supports on teams, and track how they are being used by families.

Figure 1. Demographic Data

The screenshot shows the 'Client Demographics' form with the following data entered:

Field	Value
ClientNumber	3499
SSN (No Dashes)	123456789
M.A. Number	
Client Name* (First, MI, Last)	John Anderson
Date of Birth* (mm/dd/yyyy)	2/5/1988
Ethnicity	Asian
Emp Status	Student
Family Role	Child
Care Coordinator*	HALE, AGGIE - Aggie's Case Management and Therapy
Legal Guardian	Greg Jones (GrandFather)
Program*	Wraparound
SACWIS Number	
Gender	M
Primary Language	Chinese
Case Number	
Marital Status	Single

Figure 2. Vendor Data

Vendor Demographics [Update] [Options]

Vendor Number: 80037

Name: Aggie's Case Management and Therapy

Mailing Address: 2345 Any Street

Milwaukee WI 53222

Appear in Resource Guide? ☒ Yes ☐ No

Vendor Billing Type: Paid

If client-specific vendor, client name:

Active: ☒ Yes ☐ No

Suspend New Referrals? ☐ Yes ☒ No

Termination Date:

Termination Reason:

Reinstatement Date:

Suspension Date:

Suspension Reason:

Reactivation Date:

Minority Vendor: ☐ Yes ☒ No

Faith Based? ☒ Yes ☐ No

Medicaid Eligible: ☐ Yes ☒ No

M.A. Number:

Tax ID Number: 5

Fiscal Year End:

Civil Rights Plan Rec'd? ☒ Yes ☐ No

Type of C.R. Plan: Type A

Date Rec'd: 3/10/2006

Type of Corporation:

- Juvenile justice data received from the court is entered, and is used for research purposes and as one of our outcome measures. (See Figure 1.)

2. Vendor Data

A comprehensive vendor database allows us to store and report on vendor activity.

- Vendor licenses and insurance coverage are monitored to ensure compliance with state guidelines.
- Providers serving our families, along with their credentials and specialties, are tracked to allow us to monitor care at the individual provider level as well as the vendor level.
- Data from this area can be accessed by care coordinators and families through an on-line resource guide, which includes both paid and unpaid providers.
- Satisfaction surveys and complaint data are stored in the software, allowing provider network and quality assurance

staff to monitor family satisfaction and respond to any concerns. (See Figure 2.)

3. Service Data

As a capitated health management organization (HMO), Wrap-around Milwaukee authorizes and pays for all of the mental health care for our enrollees. Based on services authorized through the plan of care, care coordinators enter services, which are approved by supervisors.

- Vendors have access to view authorizations on line, allowing them to independently confirm authorization prior to service delivery.

- Invoices are entered directly by the vendors, and adjudicated and paid weekly.
- Real-time reports are available allowing management staff to monitor service costs, look for trends and outliers, and analyze service utilization across different populations. (See Figure 3.)

4. Plan of Care

In keeping with wraparound training the care coordinators receive, the plan of care process has three distinct elements:

- Strengths / Culture Discovery

Figure 3. Service Data

December 2006 SARs for Ola Anderson				Show Detail	Delete SARs	Done	
Approved Services Value: \$675.00							
Paid Services Approved: \$675.00 Paid: \$90.00 Requested: \$0.00							
PAID SERVICES							
Status	Service/ Recipient	Vendor/ Provider	Req/App Units	Req/App Amount	Paid Units	Paid Amount	Pmt/ Check
Inv	Care Coordination- Daily - 5500A Anderson, Ola	Alyssa's Home Therapy Strong, Alyssa	30 Days	675.00	4	90.00	

Figure 4. Plan of Care

Main	Secondary	DSM Diagnoses	Family Vision	Statistics	Family Narrative	Needs
Comment	Past POCs					

Plan of Care Needs						Add Need(s)
Need	Domain(s)	Need Start Date	Current Note Date	Need Ended	Open	
Ola and her mother want to learn how to get along better	Family	2/1/2007	5/9/2007			
Ola needs to feel safe in her current school setting.	Safety/Crisis	3/1/2007	None			

2. Crisis / Safety Planning

3. Needs Identification and Service Planning

The majority of the plan of care is entered as free-form text to promote individualized care for youth and families. However, areas where we have a need to report on or analyze data are standardized:

- Families assign a numeric value for each identified need at time the need is developed, for each update, and when the need is closed. This allows us to look at a numeric “needs met” score as perceived by families.
- As care coordinators build child and family teams, each member of the team is identified as either a formal (i.e., paid) or informal support (family members, neighbors, community organizations, etc.). When creating plans of care, the team member(s) responsible for each strategy are selected, allowing us to pull information from the plans of care to verify use of sustaining supports on the teams.
- School attendance, special education placements, substance use history, and medication data are among the other areas that are standardized to allow for analysis and reporting of data. (See Figure 4.)

5. Evaluation Data

Wraparound Milwaukee is cur-

rently using the Child Behavior Checklist and Youth Self Report, administered at enrollment, six months, one year (and yearly thereafter) and disenrollment. Scores from each scale are entered and can be reported for distinct populations. In addition, family-friendly reports for use by the teams can be generated. (See Figure 5.)

6. Progress Notes

Progress notes are entered by care coordinators and data from those notes are used extensively by supervisors and management to monitor service hours, contacts with families, and child and family team meeting compliance. (See Figure 6.)

Data Access and Reporting

Users should have direct access to all of the data they need to do their day-to-day functions. No one user will need access to all of the information, but each user should be able to retrieve any information that is relevant to their job. Real time access to information from a variety of sources greatly promotes ‘buy in’ from the users of the software.

The reporting area should be the most robust component of the system. Supervisors and managers should have tools to help them monitor provi-

Figure 5. Evaluation Data

Evaluation Tools Test - CBCL			Enter	Cancel
Enrollment Date: 6/1/2006		Test Interval: Intake		
Test Date:	<input type="text"/>	(press 'Enter' to mark this test as received)		
		Check this box to indicate test is not required: <input type="checkbox"/>		
	T Score	Percentile		
Activities	<input type="text"/>	<input type="text"/>		
Social	<input type="text"/>	<input type="text"/>		
School	<input type="text"/>	<input type="text"/>		
Total Competence	<input type="text"/>	<input type="text"/>		
Anxious/Depressed	<input type="text"/>	<input type="text"/>		
Withdrawn/Depressed	<input type="text"/>	<input type="text"/>		

Figure 6. Progress Notes

Progress Notes [Check Spelling] [Insert] [Cancel]

Date of Contact: (mm/dd/yyyy) 4/7/07

Type of Note: Multiple Types Permitted

- Client Contact
- Collateral Contact
- Consult/Supvn
- Documenting
- Family Contact
- Release of Info
- Team/POC Meeting
- Other

Service Type

Crisis Time: 2.5

Non-Crisis Care Coordination: .3

Total Hours (should not exceed 8): 2.8

Face to Face Time: .8

* Enter numbers and decimal points; no text.

** Use the minutes to hours conversion below.

0-6 m = 0.1 h	31-36 m = 0.6 h
7-12 m = 0.2 h	37-42 m = 0.7 h
13-18 m = 0.3 h	43-48 m = 0.8 h
19-24 m = 0.4 h	49-54 m = 0.9 h
25-30 m = 0.5 h	55-60 m = 1.0 h

PROGRESS NOTE TEXT

Care coordinator saw Ola today|

sion of services to families. Fiscal staff will need real-time reporting of revenues and expenditures. Vendors should be able to track their authorizations and invoicing. Each stakeholder in the system of care should have access to reports that are relevant to them. Having in-house I.T. staff who are accessible and who can quickly create these reports greatly enhances user satisfaction with the software.

What We Measure

Synthesis data is used extensively in measuring outcomes for our families, and evaluating performance of organizations that work with our families. Wraparound Milwaukee contracts with nine outside agencies for care coordination services, and evaluates each agency's performance on a semi-annual basis, using a number of indicators:

- Level of family satisfaction by care coordination agency is assessed using survey data entered in Synthesis. Families rank their satisfaction level on a scale of 1 to 5 in areas such care coordinator follow through and responsiveness, crisis/safety planning and family choice in providers.
- The percentage of days in community-based settings is assessed using data from the placement screens.

- The percentage of school days attended is calculated from data entered in the Plan of Care screens.
- Care coordinator service hours, weekly face-to-face contacts, and compliance with monthly team meeting requirements is gathered from data entered in progress notes.
- The balance of formal vs. informal supports on teams is gathered from the plan of care by looking at who is responsible for each of the strategies developed.
- Each disenrollment is given a "level of success" based on three weighted criteria:

- » The level of 'needs met.' This can be calculated from the ranking given to each need by family members. The final Plan of Care, then, has an overall "needs met" score, which becomes part of the total disenrollment score.
- » Level of permanency achieved, data for which is taken from the placement screens. Each category of placement (such as independent living, relative placement, home, group home, etc.) has a numeric value that is part of the total disenrollment score.
- » Every disenrollment is also coded into categories such as Needs Met, Correctional Placement, Services No Longer Wanted, etc., and those codes also have numeric values that are part of the disenrollment score.

Where We Are Now

In the years since we have been using Synthesis, our business processes have changed greatly. Most dramatic has been the shift in staff allocations across departments. Since we began using Synthesis, the number of data entry staff in the fiscal department has decreased by two-thirds. None of these positions were lost, however. These

staff were re-allocated to quality assurance and other administrative functions as their jobs shifted from simply entering data to assisting with monitoring and evaluation of the data. The processing time from invoice submission to payment has decreased from 6-8 weeks to one week or less. Care coordinators have technology to support them in their work with families, and supervisors have tools to allow them to focus more supervision time on quality-of-care issues instead of paperwork compliance. Families receive monthly benefit statements which serve as a crucial component of our auditing of service provision. Families and their teams also have access to the resource guide, empowering them to make informed choices when selecting service providers.

Lessons Learned

From our experience developing and using our software, it is clear that several key components have led to our success:

1. We had a clearly-defined business process in existence already. That allowed us to focus strictly on automating a process we knew well and that worked for us already.
2. After a series of initial meetings with managers, support staff and other end-users, we defined what our initial goals for software development would be. From that time until the initial release of the software, we were very careful to avoid “scope creep” as users identified new areas they wanted to automate. We committed to a second phase of development to commence after the initial release of the software.
3. Although we developed a fairly robust online ‘Help’ component to the software, we quickly decided that a key component to success would be the development of a Help Desk function.
4. We only collect and maintain information that is used. Programs and initiatives should be willing to identify why they are collecting information and how it is used, and be ready to cease collection of data that is no longer relevant to the business process.
5. Too much information can be overwhelming. We instituted monthly ‘business meetings’ with our care coordination agencies during which we review key information and/or highlight areas of concern.

Author

Aggie Hale is the information technologies consultant to Wraparound Milwaukee, one of the initial system-of-care grantees. She directed the development of their Synthesis software, which is used both in-house and by other wraparound initiatives, and provides technical assistance and training to these other sites during implementation of new IT systems.

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