MILWAUKEE HEALTH SERVICES
Review of Management Information System

Presented to:

Milwaukee Health Services, Inc.
February 2004

Submitted by:

Partnership for Community Health, Inc.
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Attachments

Abbreviations

ARCW	AIDS Resource Center of Wisconsin
BCA	Business Computer Applications
CAB	Community Advisory Board
CDC	Center for Disease Control and Prevention
CEO	Chief Executive Officer
COO	Chief Operating Officer
CQI	Continuous Quality Improvement
DHHS	Department of Health and Human Services
EIP	Early Intervention program
GA-MP	General Assistance Medical Program
HAB	HIV/AIDS Bureau
HBS	Health Business Systems
HIPAA	Health Insurance Portability and Accountability Act
HRSA	Health Resources Service Administration
ICHC	Isaac Coggs Health Center
MCTP	Minority Community Training Partner
MCW	Medical College of Wisconsin

MHC	Milwaukee Health Center (as used in Attachment 1), *same as MHSI*
MHSI	Milwaukee Health Services, Incorporated
MIS	Management Information Systems
MLK	Martin Luther King Heritage Center
MSM	Men who have sex with men
P-CAT	HRSA Review
PLWH/A	People living with HIV/AIDS
SAMHSA	Substance Abuse and Mental Health Services

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INTRODUCTION

Background

In November 2003, Milwaukee Health Services, Inc. requested a HRSA/HAB technical assistant to review its MIS system with a focus on assuring adequate reporting for its Title III clients. The review was deemed an emergency technical assistance request because a re-application of Title III was being prepared, and a recent P-CAT review and previous Title III application review indicated that the MIS and client tracking system had serious deficiencies.

Grantee Information

The contact for the TA at MHSI is Ms. Rosalind Porter, Program Coordinator. Her contact information is shown below:

Phone: (414) 263-1829
Fax: (414) 263-1842
E-Mail: rporter@mhsi.org

Other key participants in the technical assistance included:

- Mr. C.C. Henderson, CEO
- Mr. Albert Barnett, COO
- Mr. Larry Hrdlicka MIS
- Dr. Tom Minor, MD - Interim EIS Clinical Coordinator
- Dr. Sheri Johnson, PhD, Behavioral Health Services Clinical Director
- Mr. Bret Ballinger, President, Groupware Technologies

Several staff members participated in meetings including case managers, nurses, and administrative assistants.

The initial scope of work is shown in Attachment 1 and the schedule for the site visit is shown in Attachment 2.

Dates of Technical Assistance Visit

After several conference calls and a review of secondary data by Dr. Cohen, a site visit was held from the evening of January 26 through January 28, 2004. Dr. Cohen's consultation was arranged to coincide with the CQI site visit by Dr. Michael Kaiser.

HIV/AIDS Overview

As of the beginning of 2002 there were about 2,367 PLWA and an estimated 2,570 PLWH in the Wisconsin. Among AIDS cases, the majority are non-Hispanic Whites. However, among HIV cases, 48% are White, 42% are Black, and 9% are Hispanic. Between 1% and 2% of the cases are of other ethnicities.

While the plurality of those HIV infected are MSM, the heterosexuals represent the next largest category with nearly 15% of the cases, followed by IDUs with over 13% of the living HIV cases. Notably, nearly a quarter of the PLWH do not report a risk factor.

Over half of the PLWH/A reside in Milwaukee County, and over half of them, mostly African American, reside in the MHSI service area, suggesting that there are over 1,200 people living with HIV/AIDS in the MHSI service area. MHSI estimates that over three quarters of African Americans living with HIV and AIDS are below 300% federal poverty level. On a Statewide basis, data from the 2000 Wisconsin Family Health Survey indicated that about 13% of all African Americans are estimated to be uninsured. In Milwaukee County about 14% are uninsured. The number would be significantly higher except for Wisconsin's General Assistance Medical Program (GA-MP), which provides insurance to those in poverty.

Care Environment

While there are several providers of HIV/AIDS care in Milwaukee, the County's care providers serve specific target populations. For those uninsured and below 300% of the poverty level, the AIDS Resource Center of Wisconsin (ARCW), the recipient of Title II and III and private funding, usually provides case mangment. MHSI has an ARCW case manager on-site.

The Medical College of Wisconsin (MCW) HIV Primary Care Support Network received Title IV funds and provides the majority of care to women and youth, and provides care to the majority of PLWH/A who have Medicaid or Medicare insurance. MHSI is the primary care clinic for the majority of African Americans who are un- or under-insured. Another 330-clinic, the Sixteenth Street Community Health Center received Title III funds to serve primarily the Hispanic population. There are a number of private clinics and hospitals serving those with insurance including Aurora Sinai Positive Health Clinic, Froedtert Infectors Disease Clinic, and Children's Hospital. MCW, Froedtert, and the Children's Hospital are located within adjoining campuses in a Milwaukee suburb and share specialists across disciplines.

Other HIV services within Milwaukee include CDC-funded counseling and testing and prevention programs at the City of Milwaukee Health Department, the Black Health Coalition of Wisconsin, and the Center for Child and Family Services.

Milwaukee Health Services, Inc.

Milwaukee Health Services, Inc. (MHSI) is a non-profit federally qualified 330-community health center. Established in September 1988, MHSI provides comprehensive primary health and an array of social services to residents of North Milwaukee. Forty two percent of the population lives below 300% of the Federal Poverty Level. Among MHSI's overall patients, 9.2% are uninsured.

MHSI has two clinical sites, MLK Heritage Health Center and the Isaac Coggs Health Connection (ICHC), which are less than a half-mile apart. The MLK facility has adult outpatient, pediatrics, oral health, and women's health clinics. The ICHC facility has adult medicine, HIV/AIDS, and behavioral health clinics.

MHSI has received Title III funding since 1992. For fiscal years 2000 –2001 and 2001-2002 MHSI received $608,535 for HIV/AIDS services. In 2002-2003 MHSI received $638,535. At the time of the P-CAT, MHSI had over $200,000 in unobligated funds to carry forward.

MHSI also received Substance Abuse and Mental Health Services Administration (SAMHSA) funding to provide mental health services to PLWH/A. It is a community-based collaborative intervention between MHSI and ARCW.

The Early Intervention Program (EIP) HIV clinic, New Directions, is located on the second floor of the ICHC, which is housed in an old elementary school. The range of care services provided in PLWH/A include:

- Comprehensive HIV primary care and specialty care,
- Women's' services including GYN and mammography,
- Rehabilitation,
- Behavioral health program,
- Oral health program (MHSI and a subcontracted oral health clinic),
- Vision care,
- Nutritional counseling,
- Medication adherence program,
- Referral to both in-house and other Milwaukee services,
- Nurse and social service case management,
- Benefits counseling and processing,
- Pharmacy,
- Limited laboratory.

- Radiology,
- Counseling, testing and prevention with HIV positives,
- Outreach, recruitment, and education,
- Provider and health professional training through the Minority Community Training Partner (MCTP).

At the turn of the century, MHSI had large deficits combined with quality of service problems. The administration of the Title III funds and HIV care services had been substandard, leading to a decrease in patients at a time where the number of PLWH/A in the African American community was substantially increasing. A panel created by the Board recommended in 2001 that unless the deficit could be reduced and operations significantly improved, that MHSI be closed. The Federal Government recognizing the gap it would create in care for African Americans assisted in the development of a recovery plan.

Over the last two and a half years, MHSI has hired a new CEO and COO and undergone significant financial and administrative changes. Among their highest priority was to stabilize MHSI financially and improve services. The financial objective has been met and services, including HIV services, have improved. There have been a steadily increasing number of clients with HIV and AIDS, which had dropped from 388 clients in 2001-2002 to 132 PLWH/A in 2002-2003. Currently the caseload has increased to 229 PLWH/A including a significant increase in those receiving dental care and case-management. There has been a significant turnover in staff including a new Director of Clinical Services and nurse case-managers.

Still the P-CAT assessment of Ryan White Title III services conducted in September of 2003 was critical of several clinical, administrative, and MIS practices and procedures.

1. Clinical
   - 1.1. Clinical policies and procedures are not complete and do not reflect the daily operation of the program.
   - 1.2. There is limited documentation on HIV specific clinical pathway.
   - 1.3. More definitive clinical policy and procedures based on DHHS guidelines are needed.
   - 1.4. There was no formal CQI Plan.
   - 1.5. Medical charts do not reflect the expert level of care that is provided by MHSI, including outdated consent forms.
   - 1.6. There is no tracking of referrals to other clinical areas within MHSI.
   - 1.7. Hours were inadequate and after hour call systems were not adequate.
   - 1.8. Operational layout of the HIV/AIDS clinic does not provide sufficient confidentiality.
2. Administrative
   - 2.1. Three of the eight EIS program personnel files reviewed had no confidentiality statements or signed/dated job descriptions. Additionally, there is no evidence of monthly staff/team meetings or in-service training.

2.2. Community Advisory Board should assist in developing a community education program and have a staff person from MHSI be assigned as a liaison between the CAB and MHSI management.
2.3. HRSA agencies funded by Title III are required to provide evidence of participation with the Title I Planning Council and/or the Title II Consortium. Although the Program Manager stated having a relationship with the Title II Consortium, there is no evidence of participation in meetings via meeting minutes generated by Consortia that reflect staff attendance.
2.4. The Board of Directors has fiscal knowledge of the MHSI, but little operational knowledge.
2.5. There is no evidence of weekly staff meetings.

3. Financial
   3.1. Though the P-CAT assessment found MHSI fiscal systems adequate to provide fiscal control, it raised a few problem areas.
   3.2. It is a program expectation that "programs must have appropriate financial systems in place that provide for internal controls, safeguarding assets, ensuring stewardship of federal funds, maintaining adequate cash flow to meet daily operations, assuring access to care, and maximizing revenue from non-federal sources." It is recommended that the Program Director address this unobligated balance immediately with the Project Officer.
   3.3. Lack of communication between the Accountant and Program Coordinator results in little feedback between actual and projected expenditures on a line-by-line basis.
4. MIS
   4.1. Client data has begun to be entered in CareWare but it is not complete.
   4.2. There is no data structure for capturing CQI data.

This consultancy stems from the P-CAT review where it was strongly recommended that MHSI seek consultation on their MIS systems.

GOALS AND OBJECTIVES OF MIS REVIEW CONSULTANCY

MHSI has a very limited budget for MIS and has one full time MIS person to handle the needs of over 115 staff and 60 desktop and laptop computers. There are no funds for the purchase of an entirely new and integrated system or the support staff to support the rollout of new systems.

Consequently, the goals of this consultancy are to:

1. Review of the MIS systems with a focus on the management of information for HIV/AIDS patients.
2. Recommend a cost-effective modification in systems that will permit necessary reporting, administrative review, and CQI data without suggesting the adoption of a new (and unaffordable) system, the purchase of significant additional hardware, or the hiring of additional support staff.

REVIEW OF MANAGEMENT INFORMATION SYSTEMS

The current MIS system is a patchwork of accounting, billing, and client databases that has evolved over time and reflect the diffuse and departmental provision of services, along with multiple forms and procedures developed from each clinic.

Hardware

The hardware currently at MHSI includes:

- 1 IBM AS/400 Mainframe Model 170 housed at MLK in computer room.
- 1 Dell Power Edge 2500 Server at the MLK Site.
- 1 Dell Power Edge 1300 Server at the Coggs Site.
- 37 dumb terminals (needed to access the AS/400). 25 at MLK and 12 at Coggs.
- 51 desktop computers. 27 at MLK and 24 at Coggs.
- 5 Laptops.
- Multiple printers
- Backup tape drives are in the servers and AS/400.
- Power surge protectors and an alternate power supply.
- Internet is accessed through a DSL connection. Business class 256 up and 4 meg downstream. ($80 a month for each site).
- Firewall on router Netopia (for VPN and routing). Routers have VPN.
- 1 terminal in the pharmacy.

Software

- Business Computer Applications (BCA) Clinic Management System (running on IBM AS/400). The software is used for patient registration, billing, and a limited number of management reports of basic demographics.
- The operating systems are a combination of Windows 2000 and XP.
- The office suite (Word processing, Spreadsheet, and Database) is Microsoft Office 2000 Professional or Office XP Professional.
- Microsoft Small Business Manager for financial management, including general ledger and accounting.
- Client database for HIV/AIDS EIP patient tracking is being populated on HRSA's CareWare.
- Client database for SAMHSA (Behavioral Health) patient tracking is being populated on Provide, an interactive client tracking system developed by GroupWare Technologies, Inc.
- Windows Explorer is the main Web browser used.

- Backup software that is provided with Microsoft NT. The AS/400 backs itself up onto an Imation SLR50 (50GB) Data Cartridge tape nightly. The servers have built-in 20GB backup drives and associated software for the drives itself and from Microsoft WindowsServer 2000.
- Microsoft Outlook is used for contact, personal calendars, and contact information. MHSI does not run an Exchange server, and consequently there are no public (shared) outlook files nor shared calendar functions.
- E-mail is outsourced and individuals receive a POP3 account.
- Virus protection is provided through AVG Virus Protection, and "dat" files are automatically updated.
- The pharmacy runs Health Business System Inc. (HBS), Retail Pharmacy Systems. HBS bills directly for Medicaid online and tracks patient prescriptions. It is not linked to other MHSI systems.

System Support

The MIS department has a staff of 1. Mr. Larry Hrdlicka has been with MHSI, first as part time and then full time for 11 years. He provides training, hardware and software support for 117 persons.

The COO, Mr. Albert Barnett has assisted Mr. Hrdlicka in the systems design and upgrades and also helps provide hands-on support. Mr. Barnett is primarily responsible for designing data runs and he, Mr. Hrdlicka, and unit managers run necessary reports for senior management.

Because there is little automation of intake, clinical notes, and laboratory results clinical staff do not request and have little need for support to access client databases. This should change dramatically as client data is entered that can be used for tracking, case management, and clinical care.

There are limited training classes offered to staff for existing software. There are tutorial tapes available when requested. There are no competency tests or requirements.

Procedures

Documentation

There is a MIS Policies and Procedure Manual (see Attachment 3). That covers basic computer operations and procedures, including general operations, physical environment, and disaster recovery plan. The greatest deficiency in it is that it does not explicitly cover necessary HIPAA compliance issues regarding client consent, confidentiality, and systems security. In other areas the manual seems adequate for general staff circulation.

It has not been part of new employee orientation and the staff has differing levels of understanding of the guidelines.

Provide and BCA are HIPAA compliant and use password and encrypted files.

Intake Process

Each clinic has its own intake procedures and while all clinics use the BCA system for intake and scheduling, with the exception of the two adult outpatient clinics in MLK and Coggs, each clinic assigns its own client number and has its own system for filing charts.

The result is that there is no electronic sharing of information between outpatient, behavioral health, oral health, or case management. Referrals are not shared and follow-up is not tracked. In addition there is no automated procedure that provides an unduplicated client count for MHSI.

While basic demographic information is entered through the BCA systems, intake forms differ and are not automated. The basic information on the BCA system include:

- First Name
- Last Name
- Middle Initial
- Street Address
- City
- State
- Zip
- Phone
- Social Security Number
- Medical Record ID's
- Primary Insurance Carrier
- Primary Insurance Member ID
- Primary Insurance Group ID
- Secondary Insurance Data
- Date of Last Change

There is also superbill data that is entered into the BCA system after the clinic has checked the procedures to be completed.

Case Management

Most PLWH/A who receive primary care from MHSI are referred through ARCW case management. There is one on-site ARCW case manager and several ARCW sites throughout

Milwaukee. ARCW uses Provide, which has the ability to share client information across different sites provided the client has given consent. Provide is a Lotus Notes-based interactive database system that pools information into the Lotus Domino server maintained by Groupware.[1] It captures full demographics of a client, does an assessment of need, and assists the case manager in developing a care plan. There are several standard need scores that are completed as part of the Provide system and they are shown in Attachment 4. Provide is described in greater detail in Attachment 4.

Nurse Case Management

PLWH/A who are referred to MHSI through counseling and testing, ARCW, or by other means do an intake with a nurse case manager into the EIP program. Because there is no printout from the BCA program and the ARCW case manager does not share the same system with the nurse case-manager, clients must restate most of the demographic, risk behavior, and care needs on the set of forms shown in Attachment 5.

There has been a recent effort to automate the information by entering it into CareWare, a free client-tracking database developed and distributed by HRSA. The goal of the CareWare database is to collect the data to generate needed reports. Its demographic fields ask for limited client information that is mapped to specific reporting requirements. Its services module collects all Ryan White eligible services in encounter or batch mode. A limited number of user-defined fields are available to agencies; but clearly, CareWare is not intended to be an all-purpose HIV and case management database. There is password access to the system and two security levels only, for users and system administrators.

A major advantage of this software is that it is logically laid out, with clear documentation and a graphic user interface that will facilitate use by data entry personnel already familiar with Office applications. There is limited, but free technical support.

A chart comparing the features of CareWare and Provide is shown in Attachment 6.

EIP Clinical Assessment and History

The chart for the patient is begun by the nurse case-manager and the physician sees the completed intake in the chart during visits. The physician uses the BCA-produced superbill to order laboratory work and procedures, and enters notes in the designated areas. This process is not automated.

[1] It initially was developed on a pro bono basis by Groupware Technologies, Inc. based in Milwaukee Wisconsin, then was launched as a commercial venture after its initial success. The system has won the Lotus Beacon Award for Best Philanthropic Solution. It currently is in used throughout Wisconsin by ARCW, in the Detroit, Kansas City, Tampa, Fort Lauderdale and Seattle EMAs. It links a statewide network of HIV and AIDS providers in South Carolina.

Laboratory Requests and Results

There is a small internal lab at MLK that provides pregnancy, step, and finger stick tests. Tests requiring licensing are out-sourced to Dynacare, which maintains a lab at the Coggs site. The superbill for labs is created by BCA, submitted to the lab, and processed for reimbursement by MHSI.

Behavioral (Psychological) Services

Provided under a SAMHSA grant, MHSI in collaboration with ARCW provides mental health services to PLWH/A. They have recently been trained on a customized version of Provide and will start to use it for clinical records.

RECOMMENDATIONS

The objective of the recommendation is to present an MIS plan that expands functionality, is cost effective, and reduces redundancy in record keeping.

The following recommendations are based on these observations:

1. BCA is an adequate scheduling and billing system and there is no other cost effective choice available for these functions.
2. Microsoft NT Server will be used and upgraded in the foreseeable future. It is a good choice for server software.
3. Desktop and laptop operating system will be compatible with NT Server software.
4. Provide and CareWare are redundant systems with Provide having greater case management and clinical reporting capabilities.
5. The Microsoft Small Business Manager provides adequate bookkeeping and financial systems for MHSI.

Based on these assumptions:

1. MHSI can significantly reduce patient burden and increase functionality by having a common intake and sharing critical intake and clinical data between clinics at MHSI.

    1.1. The BCA intake (for scheduling and billing) can be electronically integrated with Provide and using Provide as the master client database for reporting and management. This is compatible with the $28,064.50 proposal for Provide currently submitted by MHSI to HRSA. In addition it will require $7,500 in programming expenses to BCA to developing software to electronically transfer demographic fields from BCA to Provide on an ongoing basis (see Attachment 7).

    1.2. With the adoption of BCA and Provide intake and monitoring of patient data, CareWare will be redundant and its use can be discontinued.

1.3. All clinics at MHSI should use the same intake that is compatible with BCA and Provide for necessary demographic and health status information. This requires developing a "master intake process" and clinical progress notes that can be completed on-line starting with BCA and moving to a series of Provide forms. It may also be completed on paper forms and entered after the information has been collected.

1.4. Create a cross-clinic development team to review the Provide/BCA intake fields and, if necessary, modify them to meet MHSI needs and customize Provide.

1.5. A unique identifier for each patient should be assigned which can be used by all clinics at MHSI. This will reduce the need for redundant systems and multiple client IDs for the same patient. Moving forward this will be a relatively easy task for new clients. However, reassigning numbers for existing clients is likely to require substantial clerical and systems work to look for duplicates. In addition to developing one unique identifier, developing a master record system will require the reorganization of the paper charts to correspond with the unique number system. While there is not a firm estimate of cost at this time, MHSI estimates that it would cost between $45,000 and $50,000. Prior to changing the paper charts, there could be a dual system where both new numbers are assigned along with the older filing code to allow a slower migration to a new filing system.

1.6. Integrating Provide will allow MHSI to better coordinate and share critical case management information with ARCW. This required closer coordination with the ARCW case managers and MHSI nurse case managers. For those patients referred by ARCW nurse case managers can review existing client data and supplement the existing information with clinical assessments that would help the physician create a care plan. Care must be taken to have clients sign and update informed consent to have their data shared. Once the patient is an active client, Provide can also be used by nurse case mangers to review the progress of patients.

1.7. Integrating Provide into the overall MHSI process further integrate the SAMHSA behavioral health services with other clinical care at MHSI. Their experience using a customized version of Provide can be used as a pilot for determining the process and problems that may occur with an organizational rollout of using provide as a clinical (rather than case management) system.

1.8. Provide can be programmed to fulfill most, if not all, required HRSA reports as well as a series of management reports that will permit program review.

1.9. The CQI Committee can designate existing or customized fields to be captured in Provide to permit tracking key outcome indicators.

1.10. Staff training on the new intake and monitoring procedures will be needed and will require staff participation in the development and training for the new procedures.

2. MHSI can share common vendor and other contact information and establish a "shared" calendar and electronic meeting process by using the corporate version of Microsoft Outlook.

   2.1. This requires running purchasing and licensing Microsoft Exchange. It can be installed on the existing servers.

   2.2. An employee and management committee should be formed to develop the policy for using shared calendar and contact lists.

   2.3. Software can be purchased at highly discounted prices through "Gifts-in-Kind" or "Tech Soup".

3. If common intake and clinical use of BCA and Provide is adopted, it will require a substantial rewriting of the MIS procedures manual and training of staff. This must include an expanded section on the protection of confidentiality and other HIPAA requirement for secure data.

4. The MIS department will have to have expanded support. This will require hiring additional staff or developing a senior internship program with area universities that have MIS departments. Interns at that level should be paid for their time at a rate that will ensure their interest and participation. In addition, the aforementioned "Tech Soup", accessible on the Internet at www.techsoup.org, offers technology consultation for nonprofit organizations. A search was performed for consultants in the Milwaukee area and one local and one serving national areas were found:

   4.1. Mary Kay Kasal, MSM, MCSE+I, 4073 North Downer Avenue, Shorewood, WI 53211. Tel: 414-332-9514, Email: mary_kasal@hotmail.com
   "I have been an IT Specialist since 1981. I was one of the first women in Wisconsin who passed the Microsoft Certified Systems Engineer (w2k). I currently work for the Boys & Girls Club of Greater Milwaukee as a Manager of the Pieper Cyber Lab and always make time to help other like-minded individuals wanting to service the disenfranchised learn more about technology. I teach all 4 Microsoft Office application skills as well as Web Page Development. "

   4.2. Focused I.T. Solutions, 2207 Walnut Grove Avenue, San Jose, CA 95128.
   Tel: 408-246-9400, Fax: 408-554-9364, Email: INFO@FocusedITSolutions.com
   URL: http://www.FocusedITSolutions.com
   "Rather than giving you what others might think you need, we listen intently to your strategies, goals and human needs, and build a solution reflecting what you have

voiced in conversations with our team. Solutions may or may not be technology driven, they are always driven by your bottom line in mind. "
Services: Website development; database development; data & statistical analysis; networks & wi-fi; infrastructure analysis; building moves; organizational consolidations; MIS consolidations; and much more.

5. The existing pharmacy software should be reviewed to determine if it could be integrated into the overall system to provide medication information in charts and to determine if the system is maximizing reimbursements for the pharmacy.

Barriers or Problems Encountered

There are significant organizational and cost barriers to adopting the recommended changes. Organizationally, it will require the adoption of new procedures and monitoring of clinical data. Starting with executive decision to adopt standard practices at all clinics, staff buy-in and training will be key to the adoption of the recommendations.

Staff can be expected to suspicious and resistant to the use of electronic intake and record and monitoring. By adopting a committee structure of management to plan the process and procedures, staff experience can be incorporated and the process should facilitate staff buy-in.

A significant barrier will be the cost and time necessary to adopt a chart system that uses unique identifiers to store and access charts. While it is highly desirable to have a unique identifier and common chart practices throughout the clinic, it will require substantial effort to update and assign existing clients a unique identifier.

While the needed hardware and software can be obtained at a small additional cost, the installation may require significant consultant input and time. The installation of new software and training of staff can be disruptive to daily operations.

The process of adopting a process that can significantly increase shared information between MHSI clinics and with other organizations. At the same time it significantly increases the need to obtain and maintain client consent to share data. There should be a continuous monitoring to assure that the procedures meet all HIPAA requirements.

Immediate Results

The most immediate result of adopting a BCA and Provide intake should be a significantly improved client tracking and monitoring system. The systems should meet and exceed all reporting requirements and provide management with data to monitor and adjust programs.

The proposed changes in MIS will require improved cooperation between clinics and more uniform intake and tracking of clients.

The improved calendaring and contact information can lead to improved staff communication and scheduling of meetings.

Short Term and Long Term Outcomes

The short-term outcome is the ability to better serve patients and improved capacity to serve clients. Patients should have less red tape, as they do not have to complete forms with redundant information in different clinics.

The use of different acuity scales should improve the ability to create and monitor care plans (pathways).

A longer-term outcome should be the increased cooperation between MHSI and other AIDS organizations in Wisconsin and a change in corporate culture as it shifts resources from maintaining and finding client information to using automated information to better serve patients and follow-up on needed care.

Recommended HRSA/HAB Follow-Up

HRSA/HAB activities that will increase the likelihood of success are approving the funding for the care system and assigning a technical assistant to work with the organization to develop and implement staff trainings and write procedure manuals.

Attachment 1 Scope of Work

1. Design
   1.1. Phone conferences with Betah and MHC (*referred to as MHSI in the report)*
   1.2. Project plan and contract discussion
   1.3. Background and discussions with client and CQI consultant
2. Assess current MIS system
   2.1. Meet with staff at MHC and CQI consultant
   2.2. Talk with current vendors and system (HRSA's CareWare and current and planned systems)
3. Proposed needed MIS reporting needs and key fields
   3.1. Noting information needed to fulfill current reporting needs
   3.2. Spec for needed fields
   3.3. Mapping fields to existing and planned software.
   3.4. Develop data flow (data entry, quality check, and reporting system).
   3.5. Write report and edit
   3.6. Final presentation*

Attachment 2 Site Visit Schedule

Tentative Agenda
Milwaukee Health Services Inc.
HRSA TA TAC# 2404/2405

1/26/04 Monday evening:
Consultants meet and brief

1/27/04 Tuesday
Opening meeting: 9:30 – 10:00
Goal: Introduce project, agree on goals, establish expectations.
C.C. Henderson, CEO
Albert Barnett, COO
Larry Hrdlicka MIS
Tom Minor, MD - Interim EIS Clinical Coordinator
Rosalind Porter – Title III Project Director
Michelle Browne HRSA/PO (by phone)
Mitchell Cohen – Consultant
Michael Kaiser – Consultant

Continued meeting with Clinic staff: 10:00-11:00
Goal: Understand MIS needs and QI issues of clinical staff
Tom Minor, MD, Early Intervention Clinical Director
Michelle DaCosta, DDS, Oral Health Services Clinical Dir.
Sheri Johnson, PhD, Behavioral Health Services Clinical Dir.

Tour of both facilities, conversations with staff 11:30-2:00 Cohen
Goal: Understanding of physical plant and current systems

Meeting with Ms Porter: 11:30-12:30 Kaiser
Goal: Understand QI process and issues

Dr Cohen will continue with MIS specification discussion with Albert Barnett and Larry Hrdlicka 2:00 – 5:00
Goal: Understand current systems and system plans. Understand financial and personnel limitations.

Dr Kaiser will continue with QI discussion with Dr Minor 1:00 – 5:00
Goal: Understand current QI activities and issues

Evening: Consultants de-brief

1/27/04 Wednesday

Continued development of MIS objectives and plan with staff, 9:30-12:00 Cohen

Goal: Develop specification for improved MIS system to meet needs

Meeting with HIV Case Manager, 9:30-10:30 Kaiser
Goal: Understand QI expectations and roles

Chart review and development of recommendations, 10:30-12:00 Kaiser
Goal: Develop specific recommendations for QI Plan within Federal expectations

Lunch / meeting with Rosalind Porter: 12:00 – 1:30 Kaiser, Cohen
Goal: Update and status report

Status update with key staff: 1:30 – 2:30 Kaiser, Cohen
Goal: Debriefing

Continued work on MIS and QI plan 2:30 – 5:00 Kaiser, Cohen

Attachment 3 MIS Policies and Procedures Manual

Insert here

Attachment 4 Provide

Provide has been engineered by a team that includes former HIV administrators and case managers and while it takes some time to learn the intake flows, it follows prescribed case management and clinical pathways. Intake and assessment forms are filled out by a staff member; and, based on the information collected there, the software automatically generates a list of eligible services for the client. The system incorporates emailed referrals to other linked agencies, and produces agency defined Microsoft Word forms with data from the client file. Another feature is a documentation archive, which can be customized by a system administrator to store support documents that address a client's issues.

Other features include graphics that document outcome trends, a drug reference library, a community service program directory and a medical test reference library. The case management software produces Ryan White Care Act, HOPWA and Title XIX reports and can be used for user-defined reports. It does not do billing. However, Grouptech has worked with agencies in the past to develop middleware that will bridge Provide data into commonly used accounting and billing applications.

Provide also offers a coordinated care management module that integrates inpatient and outpatient tracking. The care management module includes the Provide Pathways database, which can be populated with agency-defined or pre-configured pathways. When diagnosis and procedure codes have been assigned to a patient, the software will create defined pathways with anticipated outcomes and will automatically generate care plans with recommended interventions. The Care Management module also has two customizable Java based middleware components that can link the database to existing systems.

Provide's security measures include user password protection linked to groups with varying management, design, editing and reading rights, document level access rights, and database and communications encryption capabilities. It is HIPAA compliant.

As part of the ARCW assessment, Provide has several standard scales to determine client needs including those listed on the following page:

Add ARCW Assessments here

Attachment 5 Nurse Case Manager EIP Service Program Intake

Attach Blue Forms.

Attachment 6 Comparison of CareWare and Provide Features

	PROVIDE (GROUPWARE TECHNOLOGIES, INC.)	RW CAREWARE
Description	Lotus Notes/Lotus Domino Server/Windows platform	Microsoft Access 2000 (Windows 98.2000/NT/XP)
Ad Hoc Reports	✓	✓
Billing module	Contracts, billing rates, client and service caps, and eligibility can all be set up in the Provide billing system. Invoices can be generated against the contracts and the billing can be based on set reimbursement rates or the documented cost of service. Billing can be for services or prescriptions filled or medical or dental procedures and tests. Medical billing can be at the CPT level or per diem rates depending on the contract terms. Broward County is doing all Ryan White Title I Provider billing through Provide. What we do not have is a link to private insurance or Medicare or Medicaid.	
Case management	✓	
Client demographics	✓	✓
HIV/AIDS Info	✓	✓
Pharmaceuticals	✓ Provide has the Multum Lexicon database integrated (which we believe CareWare does as well) but also offer an option of the Multum VantageRx database so drug/drug and drug/allergy interactions can be checked as well as printing of prescription labels and patient information leaflets in Spanish or English.	✓
Pre-Formatted Reports	✓ Over 100 standard reports as well as the CADR, HOPWA APR, and HUD SRO APR.	✓
Ryan White Reports	✓ We create both a CADR that exactly matches in form the CADR but also generate a Client Level CADR Data file to enable agencies to easily determine which clients are being reported in the different report fields. In addition, we have added reports for MAI reporting, Special Populations, and WICY.	✓

	PROVIDE (GROUPWARE TECHNOLOGIES, INC.)	RW CAREWARE
Scheduling module	✓	✓
Service tracking	✓	✓
User Defined Fields	✓	✓
RAM requirements	128 MB recommended for workstations.	16 MB
Processor speed	100 MHz minimum for workstations; higher recommended.	233 MHz
Hard disk space	60 MB for workstations; 2 MB recommended for server.	50 MB
Licensing fee	$900 per Provide license; Lotus desktop license is $90 per user; Lotus server license is $2000.	Free to Ryan White providers.
Training and technical assistance	Unlimited technical support and access to all new releases of Provide is priced at $210/user/year. Additional consulting or support is priced at $125 an hour, including installation time, user training, agency customization and data conversion. Training costs $1000 per day in Milwaukee, $1500 per day at client site.	Free phone support from 1 p.m. to 4 p.m. EST. E-mail assistance also is available.
Contact	Bret F. Ballinger President Groupware (414) 454-0161 bret.ballinger@grouptech.com	John Milberg Office of Science and Epidemiology HIV/AIDS Bureau Health Resources and Services Admin. 301-443-8729 Jmilberg@hrsa.gov

System Features

	PROVIDE (GROUPWARE TECHNOLOGIES, INC.)	**RW CAREWARE**
Duplication checks	Yes	Yes, has separate unduplication utility.
Levels of access (security measures)	Multi-tiered security precautions	Password links to two security levels.
Shared/ centralized system	Client/ server. System requires one or more servers. Workstations can access system via client/server, i.e. no local workstation based data, or can work offline with local system and periodically synchronize with server over analog dialup or network connection using most protocols.	Can run on network.
All required RW reporting fields	Yes	Yes
Medicaid Billing	Generates billing data, but billing must be done by another application.	No
Grant tracking	Yes	No
Referral library	Yes	No

Scheduling	Yes	No
Medications	Yes	
E-mail/ communication	Yes	No
Case notes	Yes	
Coordinate/ track services	Yes	Yes
Evaluate client Outcomes	Yes	No
Assess provider performance	Yes	No
Assess cost of care	Yes	No
Determine units of services received	Yes	Yes
Assess health service utilization	Yes	
Report on network of care	Yes	No
Monitor multiple patient services	Yes	Yes

Reporting Features

	PROVIDE (GROUPWARE TECHNOLOGIES, INC.)	**RW CAREWARE**
CD4 Batch Report		
AIDS Drug Assistance Program (ADAP) Report	Currently tracks T-cell panels including CD4, CD8, Helper Ratios, and allow reporting and graphing of the values.	
AIDS Pharmaceutical Assistance Annual Administrative Report (APA)	✓	
Health Insurance (HIP) Annual Administrative Report	✓	✓
AAR Reports	Each community tracks the data elements differently.	✓
AIDS Surveillance Report	✓	✓
Appointment Cards	Supports data elements for confidential testing sites. Could support anonymous testing data elements with assignment of creative name identifiers.	
Client Profile	✓	
Clients Without Services	✓	

	PROVIDE (GROUPWARE TECHNOLOGIES, INC.)	RW CAREWARE
Contract/Staff Distribution Report by Contract	✓	
Encounters and Services Listing	✓	
Group Activities Report	✓	
Outcome Indicators Report	✓	
Overdue Auto Alert Reports	✓	
Pharmacy Formulary	✓	
Prescription Labels	✓	
Primary Physician Questionnaire	Prescriptions are currently generated. Labels could be done.	
Pre-Test Counseling Report	Coming in Release 5.2.	
Progress Notes Report	Currently found in Clinical System as required by Title III Early Intervention Services.	
Referrals	✓	
Referral Form	✓	
Referral Library List	✓	
Scheduled Activities	✓	
Security Log	✓	
Security Rights	The system tracks on log-ons and all data updates. Third party software can be added to track all reads.	
Service Deliveries	✓	
Service Delivery Cost Analysis Reports	✓	✓
Staff Summaries	✓	
Staff Report/Listing	✓	
Staff/Contract Distribution Report by Worker	✓	
Statistical Analysis of Active Client Count	✓	
Statistical Analysis of Demographic Data	✓	
Statistical Analysis of Distribution by CDC AIDS Year	With Release 5.3 system will have an automated data synchronization tool to build and maintain a relational database for OLAP.	
Statistical Analysis of Distribution by Discharge Date	With Release 5.3 system will have an automated data synchronization tool to build and maintain a relational database for OLAP.	

	PROVIDE (GROUPWARE TECHNOLOGIES, INC.)	RW CAREWARE
Statistical Analysis of Distribution by Drug Enrollment Date	With Release 5.3 system will have an automated data synchronization tool to build and maintain a relational database for OLAP.	
Statistical Analysis of Distribution by HIV Test Year	✓	
Statistical Analysis of Distribution by Registration	With Release 5.3 system will have an automated data synchronization tool to build and maintain a relational database for OLAP.	
Statistical Analysis of Medical Data	✓	
Syringe Exchange Reports	✓	
User Definable Reports	✓	
Weekly Billable Units	✓	✓
Zip code Analysis	✓	
Notes	✓	

Attachment 7 BCA Estimate to Transfer Data to Provide

Insert Acrobat file Provide Interface Workorder.pdf here.