National Scan: Innovative Children's Management Information Systems (MIS)

he National Scan: State of the States in Children's Services Evaluation conducted by the Georgetown University National Technical Assistance Center for Children's Mental Health has revealed some innovative strides in states' abilities to integrate management information system (MIS) data from multiple child-serving agencies. Below we profile a few states and their interagency MIS milestones.

Connecticut

The CT LINK System is a major database developed for child welfare, mental health, and juvenile justice services in the state. Connecticut has used grants from the Center for Mental Heath Services to support capacity development efforts in the state mental health data system and to support performance outcome measurement within managed

behavioral health care. The ultimate goals of the projects include upgrading MIS and application capabilities to provide information for planning and implementation of integrated services. For more information, contact: Laura Steinmeyer, Director, Information Systems: (860) 550-6558, or Allan Duran, Director of Internet and Research Support: (860) 550-6421.

Hawaii

The FELIX Interagency Management Information System (FIMIS), scheduled for implementation in mid-2000, will support the collection and analysis of children's services data and the evaluation of system outcomes. The FIMIS will enable various agencies to assess efficiently the service delivery system as well as provide information necessary for integrated client care, evaluation reporting, and decision support. Department of Health programs which currently maintain child-specific information and which may contribute to the FELIX data warehouse include: Child and Adolescent Mental Health, Family Health Services, Early Intervention Services, Maternal and Child Health programs, Community

Health Nursing and Developmental Disabilities programs. For more information, contact: Mary Brogan, Child & Adol. Mental Health, <mbrogan@camhmis.health.state.hi.us>. Kentucky

The Department of Mental Health has been working on a broad-based outcomes initiative for the state as a component of their transition to managed mental health care.

Information from the managed care evaluation system and the statewide system of care ("Kentucky IMPACT") evaluation system will be integrated and linked with client and event data in the state Mental Health/Mental Retardation MIS. Development of a real-time, online decision support tool to analyze and disseminate information continues. To accomplish this goal, data from several agencies will be collected and integrated into a central database to

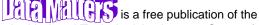
allow for more informed decision making and policy development. For more information, contact: Paul Andis, Children & Youth Services Branch, DMHMR Services, (502) 564-7610, cpandis@mail.state.ky.us>.

New Mexico

New Mexico has developed an integrated MIS for their behavioral health and community service providers to use to report data to the state. It includes demographics and billing and, by July 2000, will incorporate outcomes. The system will utilize dial up connections to receive data electronically from approximately 100 providers statewide. The state is willing to share this MIS technology with interested parties. For more information, contact: Ken Martinez, Deputy Director, Children, Youth and Families Department, (505) 827-7659, <kjmartinez@cyf02.cyfd.state.nm.us>

North Carolina

The North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services has recently implemented a Client Outcome Inventory (COI) initiative for all area programs involving clients with mental





Introduction to Issue #2 A letter from the Editors...

Michelle Woodbridge, Ph.D.
Larke Huang, Ph.D.
Georgetown University
Nat'l Technical Assistance Center
Washington, D.C.

The focus of this issue of "Data Matters" is connecting information systems. Drawing from the metaphor of information highways, our intent is to show the different levels and systems of information gathering, highlighting innovative routes to sharing, linking, and transporting data across states, communities, agencies and cultures. From the datarich FEDSTATS Web site to the pencil-paper spreadsheet of a Thai village, we underscore the need to share data within and across organizational and political boundaries to improve service systems and ultimately the health of children and families.

Copies of *Data Matters* may be distributed freely.

If you would like to contribute to future issues or if you have suggestions/corrections for the mailing list, please send information to Michelle Woodbridge, Fax: (202) 687-8899, <woodmich@gunet.georgetown.edu> Prior and current issues of *Data Matters*

may be found on our Web site: www.dml.georgetown.edu/depts/ pediatrics/gucdc/

A Virtual MIS

For Child and Adolescent Systems of Care

John A. Pandiani, Ph.D. Vermont Mental Health Performance Indicator Project

Systems of care for children and adolescents are complex and diverse. Vermont's federally funded *Mental Health Performance Indicator Project* has developed a unique approach to monitoring the size, shape, and performance of its system of care. The approach relies almost exclusively on existing data resources:

Data that are lying around the house.

Vermont's mental health research staff regularly obtain database extracts from child-serving and other state agencies and use these data to monitor levels of access to care, service system integration, and treatment outcomes. When Vermont brings together focussed extracts from diverse data sets to address a specific research or program evaluation issue, we create a "Virtual MIS." This "Virtual MIS" does not live in the electronic circuits and structured logic of a computer system. It only exists when it is in use. But it is able to perform critical research and evaluation functions. Because our "Virtual MIS" does not rely on personally identifying information, it does not support clinical applications. For the same reason, however, it poses no threat to the confidentiality of medical records or the privacy of children and families.

A number of service outcomes for children and adolescents have been measured using this approach. Rates of incarceration have been measured for young men who had been served by children's mental heath, social services, and special education. The "Virtual MIS" comes into existence when data from these child-serving agencies are brought together with data maintained by the state correctional authority.

Vermont Mental Health obtains databases from other child-serving agencies and uses them to monitor service system access, integration, and outcomes.

Maternity rates for young women who had been served by these same agencies were measured by bringing data from vital records of the Health Department together with data from the child-serving agencies. Numerous other aspects of system and program performance have been measured as well.

There are three key elements to Vermont's "Virtual MIS" approach to data management and analysis. The first is to break free from the data collection reflex that is the legacy of research and evaluation paradigms developed in an era of information scarcity. Today, data are everywhere. Most research and evaluation questions can be answered by bringing existing data sets together.

The second key is the statistical technology of Probabilistic Population Estimation. This technology provides precise estimates of the number of people represented in data sets and the number of people shared across systems even when no unique person identifiers are available. Almost all questions about access to care, program integration, and outcomes are questions about caseload overlap and can be answered by applying this statistic to anonymous data sets.

The third key to the "Virtual MIS" approach is the adoption of a systems perspective to program evaluation. The Virtual MIS tells you how many children and adolescents had specified outcomes; it does not tell you who. Program evaluators do not need to know who experienced the positive or negative outcomes under evaluation. They need to know how many.

The "Virtual MIS" does not do it all. It does not support clinical and billing functions that require the unique personal identifiers. But it does provide powerful measures of program and service system performance without additional data collection and without raising questions about the confidentiality of medical records.

For more information, please contact John Pandiani at: jpandiani@ddmhs.state.vt.us

Innovative Children's MIS,

continued from page 1

health and substance abuse diagnoses. The COI marks a substantial expansion of North Carolina's efforts to evaluate their system's performance including information about their adult and child clients in five important domains:

- 1. Functioning and reduction of symptoms
- 2. Involvement in employment and education
- 3. Involvement in the criminal justice system
- 4. Crisis utilization, and
- Residential appropriateness.

This information, combined with updated client information collected in the Client Data Warehouse, will allow the Division

to provide feedback to area programs quickly and to develop descriptive reports about the clients they serve and the progress they make. For more information, contact: Maria Fernandez, Division of Mental Health, Child and Family Services Branch, (919) 733-0598, <mfernandez@dhr.state.nc.us>.

For more information on state MIS, see our database at: http://www.dml.georgetown.edu/depts/pediatrics/gucdc/eval.html

North Dakota

The North Dakota Partnership Project is a statewide system of care focusing on wraparound services. Each regional project maintains its own database to forward information to the state office on a quarterly basis. Sites have access to Medicaid, Children and Family Services, Human Service Center (regional public mental health providers), Health Department, school, and Juvenile Justice information.

A Quarterly Evaluation Report includes cost analyses, family satisfaction, and safe bed data compared across system of care sites. Focus now is on sustaining the system of care through legislative action and continued collaboration across systems. For more information, contact: Kathy Moum, Division of Mental Health/Substance Abuse Services, Children's Mental Health, (701) 328-8978, <Notes.somouk@ranch.state.nd.us>.

Oklahoma

The Oklahoma Department of Mental Health and Substance Abuse Services (DMHSAS) has recently contributed to the design of a state coordinated, interagency children's data system. The system design addresses many of the principles identified by initiatives sponsored by the

Center for Mental Health Services (e.g., MHSIP). DMHSAS proposes to build on these efforts and use MHSIP State Reform grant funds to create a Performance and Outcomes Monitoring System for Children's Mental Health Services. Other agencies committed to the successful

development of the children's data system include: Office of Juvenile Affairs, Department of Human Services, Oklahoma Commission on Children and Youth, and the Sooner Start Early Intervention Program operated jointly by the State Education and Health Departments. For more information, contact: Steven Davis, Director, Evaluation & Data Analysis, (405) 522-3813, <sdavis@odmhsas.org>.

For a profile of Vermont's MIS, see article by J. Pandiani on page 2.

Oh Boysville!

Building Capacity for Evaluation by Integrating Data Across Departments:

A Case Study from Boysville of Michigan

Sue Ann Savas, M.S.W., Program Evaluation Director Eileen Parker, System Manager

The *Data Matters* newsletter provides readers with promising practices in the design and implementation of evaluation programs and integrated information systems for building evaluation capacity. This article briefly describes one agency's approach to integrating data across departments/functions. First, an overview of Boysville and the benefits of data integration will be presented. Next, the information systems and methods of interface will be described. Finally, the lessons learned in maximizing integration efforts will be discussed.

Boysville of Michigan

Boysville serves approximately 2500 children, youth, and families annually from Michigan and Northwestern Ohio. The agency service system includes residential

treatment, community-based, and in-home program models. Clients come to the agency from various systems: child welfare,



juvenile justice, mental health, and education.

Why Bother with Data Integration?

The summer issue of *Data Matters* describes a need for "efficient, interagency management information systems that integrate information within and across departments/organizations/systems of care." For many agencies just beginning to make use of the technology, this goal seems noble and lofty but not always feasible. Nevertheless, in an environment requiring more reporting and accountability, organizations without this system capacity may find themselves operating at a disadvantage. Agencies that can integrate data across agency departments (i.e., clinical, personnel, accounting) are in a better position to generate critical program indicators: cost per unit of service, service utilization rates by client groups, cost effectiveness of programs, occupancy rates by client group, effects of staff continuity on client outcomes, and others.

Information Systems and Interfacing Methods

Over the past 20 years, Boysville of Michigan continued on page 4

The Thai's That Bing

Establishing an Integrated Information System in Thailand

Since early 1997, Thailand has been implementing an innovative initiative for schools, communities, and local organizations called the CHILD project ("Children's Integrated Learning and Development"), supported by UNICEF.

Thailand's school-based MIS gives policy makers the information they need to monitor and make system-wide reforms.

Orignially launched in just two schools in the nation's poorest region, Ubol Ratchatani, the CHILD project currently covers eight provinces in the Northern, Northeastern and Central regions (including almost 200 schools and approximately 60,000 primary level students). In the year 2000, they will add nine new provinces and up to

1,500 schools. The project's objective is to establish a locally managed information system containing educational, community, family, and individual data that may give insight into children's learning and family functioning.

Thailand's work focuses on mobilizing rural schools with appropriate information technologies and skills to create a children's learning profile including academic records, health and nutrition status, and social indicators. It supports the development of local integrated management information systems (MIS) to finely identify and monitor activities and progress in the school and community. These data help to assess the impact of new teaching methods and external factors that may affect child learning. For schools without computers, a hard-copy model has been developed with spreadsheets. Teachers are then trained to evaluate the children's performances to identify learning problems as temporary, sporadic, or chronic, and to uncover potential causes (such as family situations). As a result, firmer partnerships are created among schools and communities in undertaking constructive family and community development projects for child learning.

To help the children and support the family, the teacher may refer them to a family and community development program, school-based program, and or a combination of the two. Holistic services have included day care, support groups, health and nutrition education, child protection training, peerto-peer learning, parent meetings, and school facility improvements.

Finding computers for the schools was initially problematic, but private companies and UNICEF donated used computers, and some communities used development funds to supply computers to the schools.

For more informatio, see: Attig, G. A., & Promchan, S. (1998, August). Monitoring child rights at local level: Children's Integrated Learning and Development. <u>PREviews</u>, <u>2</u> (2), 1-3, 7 (available on-line at: http://www.unicef.org/reseval/).

Oh Boysville!

Boysville's Integration of Data Across Departments

continued from page 3

purchased a number of separate stand-alone information systems to meet various data management and reporting needs. When a system was added, the agency would carefully review the other modules within a package in hopes of finding one vendor or designer that could meet multiple needs in an integrated fashion. The agency soon discovered that one module within a package was comprehensive in meeting internal needs, but the other modules were not adequate or as carefully conceived. Consequently, Boysville currently utilizes a number of information systems (refer to table below). Interfaces and "data bridges" such as Crystal Report Writer® and SPSS® are in place to facilitate the integration of key pieces of data across two or more systems.

Boysville of Michigan Information Systems

Functions	Major Systems	Interfaces & Bridges
Clinical Practice	Anasazi	Crystal Reports®
Program Evaluation	Anasazi	SPSS®, Excel®, Crystal Reports®
Human Resources	ABRA®, Greentree®, On-Track®	Excel®, Crystal Reports®
Payroll	ABRA®	Excel®, Crystal Reports®
Accounting	Anasazi, MIP, Blackbaud	Excel®, Crystal Reports®
Fund Development	Blackbaud	Crystal Reports®

ABRA® was developed by Best Software Inc.: www.bestsoftware.com.
Anasazi, Inc. supports data communications and networking strategies: www.anasazi.com.
Blackbaud accounting products are available from Blackbaud, Inc.: www.blackbaud.com.
Crystal Reports®, a presentation-quality report writer, is available from Crystal Services, Inc.
Excel®, a spreadsheet application, is available from Microsoft: www.microsoft.com.
Greentree® is developed by Greentree Systems, Inc.: www.greentreesystems.com
MIP, Micro Information Products, Inc. supports accounting software: www.mip.com.
On-Track® is developed by DKSystems Incorporated: www.dksystems.com.
SPSS®, Statistical Product and Service Solutions, is available from SPSS, Inc.: www.spss.com.

Lessons Learned

Throughout this process of integration, Boysville has learned a number of lessons. First, collaboration of coworkers across departments has resulted in a more responsive, more efficient, and cohesive process. Also, ensuring confidentiality through the use of security controls by credential and position has supported this collaboration. Second, establishing standard codes for units of analyses (such as program units, service codes, and cost centers) has reduced the time needed to "translate" and "re-code" data across information systems for analysis and reporting. Finally, making information system resources (i.e., help desk, programming, technical assistance) available to all system users has facilitated the integration effort. In summary, the need for integration continues to grow as the agency works toward maximizing utilization of information for improving practice.

For more information, please contact Sue Ann Savas at Boysville: (517) 423-7451 x 236, <ssavas@boysville.org>

The Digital Divide

Delia Carmen Senior Consultant, Annie E. Casey Foundation

Issues of cultural competency have managed to creep into the information systems arena front and center. This is not surprising, particularly if we consider that systems are but a reflection of how we choose to use them. The cultural competency issues that we find ourselves confronted with are very much in keeping with where we are as an industrial society.

The Department of Commerce's recent report Falling through the Net: Defining the Digital Divide disclosed that out of the 42% of all households that own PCs, 80% earn \$75,000 or more a year and that there are fewer than 16% of

Guidelines for Research and Data Management with Children, Youth, & Families

(Adapted with permission from Paul Weaver, Ph.D., 1997, State Director, Kentucky Office of Consumer Advocacy)

- Every child and family has the basic right to privacy and confidentiality.
- The child's family owns the information contained in mental health and medical records, and they have the right to full access to them.
- 3. Informed written consent of the child's family is mandatory to release any information to outside parties.
- 4. Extensive protocols for data management should be mandated, aggressively followed, and audited.
- Family members should be trained members of the team that designs the management information system and its implementation. They should also periodically review and audit all data management procedures and policies.
- 6. The child's family has the right to refuse, withdraw, or participate in studies or information systems without fear of reprisals or coercion. In consultation with family members and to the furthest extent possible, children and youth should understand the implications of participating in research studies so that they can make their own informed choice about being involved.
- 7. Social Security numbers should not be used, if at all possible.
- 8. Information and data should be encrypted.
- A record of all persons accessing information from individual records should be maintained for inspection.
- 10. Children, youth, and family members who participate in research and evaluation should be afforded the same rights of participants in any other research study as prescribed by federal laws and regulations.
- 11. There is a child and family representing each data element.
- Researchers should honor the individualities, empowerment, and personal choices of all children and families.
- Researchers and staff should be trained in cultural sensitivity, diversity, and family involvement issues.
- 14. Only essential data should be collected. Research studies should have a high likelihood of contributing significantly to the field of mental health services and outcomes as well as the quality of life enjoyed by children and families.

PCs in households earning less than \$20,000. It further disclosed that people of color, particularly African Americans and Hispanics, are less likely than Whites to have Internet access from home or any other location— a disparity which increased by 6% since 1994. The reasons for this division are not limited to economic disparities which, of course, have always been a barrier for people of color.

There is the issue of getting reliable, high-speed network connections to poorer inner city and rural communities. There is no incentive for cable/telephone companies to install high cost, hi-tech fiber optics to areas that will not deliver a return on investment. This will be exacerbated if the current competition between AT&T and the cable industry about who will deliver high speed connections to the home are won out by cable companies:

faster, more reliable service (the kind that facilitates downloading of graphics and information from the Web, and access to multi-media and interactive programs) will again only be available to those who can pay for it.

Probably one of the most important areas that perpetuate the digital divide is

the lack of technology available in public schools in predominately minority neighborhoods. U.S. statistics show that in 1998, 80% of the first-year students at private universities but only 41% of students at public, historically black colleges used e-mail. Similar inequalities were found in elementary and secondary schools: 57% of the instructional rooms in schools with 50% or more minority enrollment were connected to the Internet. These same differences are reflected in a variety of other statistics from the U.S. with regard to student-computer ratios and types of Internet connections. The limited exposure to technology in educational settings by people of color further reduces posteducational opportunities to compete for hi-tech skilled professions that will dominate global markets this century.

At a recent OECD/NCAL-sponsored International Roundtable at the University of Pennsylvania, participants were reminded of yet another cultural competency issue: the predominance of English as the primary language used by software developers, WINDOWS and the World Wide Web. This language issue is a clear disadvantage for potential New American, non-English speaking PC users (not to mention third world emerging countries). Both the demand by the market as well as the response by marketers to develop multi-lingual software products and protocols has been slow to non-existent.

Another area that has not received much attention but which is equally laden with issues of race, ethnicity, class, and power is the lack of minority, software entrepreneurs. Albeit, studies suggest that minority groups' inability to take advantage of entrepreneurial software opportunities is not very different from their exclusion as entrepreneurs in general. (i.e., they do not have the education, job

Cultural Competence

in Information Systems (IS):

Too Important to Ignore

Larke Huang, Ph.D.
Georgetown National Technical Assistance Center

In systems of care for children, cultural competence and information systems are two conceptual areas that are rarely addressed together yet they share the goal of improving the service delivery system for children and families. Examining the interface of these two areas may yield important directions for strengthening children's services. This article, drawing upon informants with expertise in both fields, will highlight some of the issues at the "interface."

Does the information system capture the appropriate data to enable analysis of the cultural competence of the service delivery system? This appears

Who designs the information system?
For what purpose?
What data are included, excluded?

to be the "big" question. How does the information system address the target population, access to services, availability of culturally and linguistically appropriate services, cost of services for these populations, and appropriate indicators and outcomes? Specifically, what is the capacity of the information system regarding:

- The inclusiveness of culturally diverse populations in the data;
- The ability to aggregate and disaggregate the data by culturally diverse groups;
- The gaps in data due to limited cultural identifiers;
- The validity and reliability of the data collected on populations where English language skills and conceptual equivalence may be lacking;
- The gaps in data due to limited understanding of the range of culturally appropriate services;

Do You Have MISsues?? Join Us on the MIS Listsery!

The Evaluation Initiative has recently begun operating a listserv to provide current information about children's system of care services evaluation and interagency management information systems. Recently, members (representing 12 different states, one **INTERNATIONAL** correspondent, and multiple agencies!) have commented on the barriers, facilitators, and incentives for building interagency management information systems.

Please join us in our current discussion about:

Interagency Management Information Systems in Children's Services: What are the Issues?

You may subscribe to the list by sending the following email message (no need to include a subject) to listproc@listproc.georgetown.edu:

subscribe TAMIS-L <Firstname> <Lastname>

 The tracking of program indicators and client outcomes for culturally diverse populations?

If significant gaps in data exist, how useful can the data be for improving the cultural competence of the service system? For planning, accountability, and decision-making?

In describing culturally diverse populations, the *cultural identifiers* need to be meaningful. Information systems need to be both inclusive and specific, and move beyond simple racial indicators such as "White," "Black," and "Other." The heterogeneity of ethnocultural populations necessitates more complete identification than merely a broad racial/ethnic designation. Particularly for Hispanic and Asian American populations with high rates of immigration, lack of information regarding acculturation, generational status, and primary language, may contribute to misinformation and poor planning. For example, aggregating third generation Chinese Americans with Hmong and Vietnamese refugees will obscure

important differences in service needs and utilization.

An information system used for agency operations, clinical planning, and system improvement relies on valid and

reliable data. However, the *validity* and *reliability* of the data may be questionable when collecting data across cultures. Language barriers may impede understanding of the information being obtained. Measures administered without translation or interpreter services for limited English-proficient populations may be invalid. Similarly, the lack of cultural equivalence of terminology and concepts across cultures may result in misdiagnosis and misperceptions. For example, screening instruments that associate clinical symptoms with "hearing voices" may be inappropriate and invalid for use with cultures that accept the "hearing of ancestral voices" as appropriate.

Information systems provide data on the array of services and providers. In order to advance the cultural competence of the service delivery, the IS must include data regarding access to cultural, ethnic, and linguistically appropriate services. This may be examined in satisfaction measures (although the validity of written measures are questionable with certain populations), tracking of the cultural and linguistic diversity of the provider, and tracking of the type of provider, including natural helpers, community-based organizations, and cultural healers. While most systems track ethnicity of the clients, few track ethnicity or linguistic diversity of the providers. Types of providers are usually tracked according to traditional professional disciplines. For example, one informant described a recently purchased information system that included a list of providers categorized as "QMHP" (qualified mental health providers.) QMHP included providers such as MSWs, MDs, PhDs, LCSWs, but omitted indigenous community healers, cultural brokers, and nontraditional providers, many of whom have been the "mainstay of their communities."

Cost data are an integral component of information

Cultural Competence in Information Systems,

continued from page 6

systems and critical for management decisions. Building cultural competence requires the inclusion and tracking of services that are not usually included in the traditional menu of service costs. One informant from a culturally heterogeneous county indicated that in order to manage costs, she needs to track the outlay for interpreter services and constantly build this into the county program budget. Without tracking this need and the cost, she would encounter resistance to including this in her program costs.

Performance indicators are necessary to assess the cultural competence of the service delivery system. The IS needs the capacity to track these indicators to measure capacity and to provide data for system improvement. Culturally appropriate clinical and program outcomes need to be incorporated into the IS. For example, if a program outcome is to increase the number of culturally diverse clients served, is the information system structured to conduct this analysis? In terms of tracking clinical outcomes for diverse clients, are these outcomes and their measurement clinically and culturally appropriate?

What are the politics of data-driven decision-making?

An information system is potentially a powerful tool for developing culturally competent services. However, this is contingent on the design of the system, the data elements, and the data collection procedures developed for the system.

The Digital Divide continued from page 5

experience, capital and social networks that are needed to support successful business ventures). This lack of participation may be a contributing factor to yet another cultural competency issue, software application content. Arguably, the fact that there are not more people of color developing software may be one reason why software developers of client tracking, case management and managed care systems are still using out-dated deficit-based assessment data sets to conduct psycho-social assessments.

These are just some of the more evident cultural competency issues that impact MIS. While there are efforts underway to address these acknowledged disparities, they can only be truly ameliorated when we make a commitment to eradicate these broader cultural competency issues within our society at large.

U.S. Department of Commerce, Falling Through the Net, July 1999. Venezky, R., ICT and The Gaps Within Formal School Education, (CERI/ OECD), Paris 1999.

Schon, D., Bish, S. and Mitchell, W.J. High Technology and Low-Income Communities, MIT Press, Cambridge, Mass. 1999.

Several of our informants indicated that this is where the politics of race, class, and power enter in. Who designs the information system? For what purpose? What data are included, excluded? An information system has the potential to identify inequities in access to and utilization of services among culturally, linguistically, and ethnically diverse populations as well as strengths of services. An IS can delineate the characteristics of providers included in the service system and highlight omissions in the array of providers. These analyses have direct implications for allocation of resources and direction of growth for a service system.

Information systems are expensive and difficult to develop. Smaller providers and community-based organizations often lack the resources to purchase, adapt, or develop an acceptable MIS or become part of an integrated system. Yet information systems are generally a requirement of private and state-run managed care systems. For these providers, many of whom serve poorer and culturally diverse communities, the barriers to information technology are grounded in societal inequities such as the limited access to electronic communication networks in communities of color. This "digital divide" will hinder the development of information technology to underserved, culturally diverse populations. (See article on Digital Divide, page 5.)

For this article, we gratefully acknowledge the contributions of: Delia Carmen, Ph.D., Senior Consultant, Annie E. Casev Foundation

Terry Gock, Ph.D., M.P.A., Director, Pacific Clinic Asian Pacific Family Center, CA

Regenia Hicks, Ph.D., Deputy Director, Child and Adolescent Services, MHMR Authority, Houston Texas Tuan Nguyen, Ph.D., Director, Research Evaluation and



Accreditation Additions

In our last issue of "Data Matters," we identified relevant accreditation bodies and other organizations developing standards/indicators of quality care (see issue #1, page 6). Please add to that list:

CQL, The Council on Quality Leadership in Supports for People with Disabilities

CQL is an international non-profit quality enhancement organization with an accreditation process that requires organizations to demonstrate how their processes facilitate individually-defined outcomes. More information can be found on their Web site at: www.thecouncil.org.

Learning From Our Partners:

MIS in the Child Welfare System

The integration of management information systems across traditional children's services agencies (i.e., mental health, child welfare, juvenile justice, health, and education)

depends on the willingness of agencies to create formal linkages for data sharing, to promote technological compatibility, and to ensure data quality. The first step in bridging these systems is understanding the state-of-the-art MIS in place in partner agencies. New systems are being developed to meet federal reporting requirements (e.g., Health and Human Services requirements, the Government Performance Results Act, 1993), state

initiatives, and local accountability mandates. In order to keep up with these changes, the current technology utilized for information management and data gathering at the state and national levels in the Child Welfare system is summarized below. Future issues of *Data Matters* will present state-of-the-art systems in other partner agencies.

Data systems within Child Welfare agencies include the following:

• The Adoption and Foster Care Analysis and Reporting System (AFCARS) of the Children's Bureau, Administration of Children, Youth, and Families, U.S. Department of Health and Human Services: a federally-mandated data collection and analysis system for the

purposes of informing national policy and comparing state data. Indicators include demographics, placement settings, lengths of stay, and service goals for children in foster care and waiting to be adopted. For current reports, see http://www.acf.dhhs.gov/program/cb>.

 The National Child Abuse and Neglect Data System (NCANDS) of the National Center on Child Abuse and Neglect,

U.S. Department of Health and Human Services: a federally-mandated data collection and analysis system on child maltreatment. Contains two components: (1) a voluntary reporting of aggregated data for the purpose of producing national reports (to which most states contribute), and (2) detailed case level data submitted annually by about 20 states. Current information such as child abuse rates can be found at the National Clearinghouse on Child Abuse and Neglect,

.

• The Statewide Automated Child Welfare Information System (SACWIS): a federal funding stream supports the development of statewide information systems to address child maltreatment, child protection, and foster care. These operational systems contain detailed service data for retrieval by social workers, accounting departments, and managers for the primary purposes of service planning, billing, and accountability. For information about states participating in this program, see: http://www.acf.dhhs.gov/programs/oss/sacwis/!sacwis.htm.

We gratefully acknowledge John Fluke, Ph.D. for his assistance with this article.

Basic Strategy forSelecting an Information System

Henry Yennie, BCSW Consultant

In today's rapidly changing environment, the selection of an information system is one of the most important purchasing decisions faced by an organization. As more public entities turn to managed care organizations and techniques for social service financing, the traditional agencies that have served these populations will be forced to make rapid adjustments, often with little room for error. In short, many organizations will have one and only one chance to make an information system selection. The organization will have to live with that decision for years to come.

An organization therefore must first have a clear understanding of its current business, its market strategy for the next three to five years, and the core business processes the organization wishes to automate or support with information systems. If selected in this context, the

resulting hardware/software tools will enhance the productivity and efficiency, lead to process improvements, and help the organization to quickly adapt and survive.

The traditional approach to systems selection has been the RFP.

Typically a large document, the RFP consists of an organization's best attempt to describe its needs and technical requirements.

Evaluation of RFP responses can be time-consuming and confusing as vendors attempt to present their systems in the best light. We recommend the Business Scenario Demonstration approach, part of a comprehensive process that begins with identifying and mapping the core processes of the organization. This approach is one of a set of alternatives that are replacing the traditional RFP and can be defined as follows:

Development and use of business scenarios to test the potential fit of software packages to current business problems and needs. Scenarios can be defined as "stories" that depict a common business problem, process, or need



Basic Strategy for Selecting an Information System

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that is part of the organization's day-to-day work. These "stories" typically contain a short description of the problem, a short list of end products desired (i.e. print an insurance bill), and a short list of functions to be demonstrated.

The following list is a brief "roadmap" for the Business Scenario Demonstration model:

- 1. Outline of work plan for project
- 2. Analysis of existing information system infrastructure
- Collect and analyze key indicators for organization/project growth
- 4. Review and functional mapping of near-term business strategy
- 5. Analysis of core business processes, with re-design as appropriate.
- 6. Definition and ranking of specific functional needs
- Compilation of baseline data package (information a vendor needs to configure a system before the demonstration)
- 8. Editing and compilation of scenarios ("stories" that illustrate common business processes and automation needs)
- 9. Compilation of vendor packages (project milestone)
- 10. Complete initial vendor screening survey
- 11. Recommendation of final vendor pool
- 12. Define schedule of vendor demonstrations
- 13. Design of vendor scoring system
- 14. Conduct vendor demonstrations (project milestone)
- 15. Completion of customer satisfaction surveys
- 16. Preparation of scoring results and recommendation

动物基础

This method has proven successful for many organizations since it gives an organization a view of system capabilities balanced with the organization's business needs.

For more information, please contact Henry Yennie at: henryy@earthlink.net.

Web-Based Sources

of Statistics on Children

Center for Disease Control and Prevention National Center for Health Statistics (NCHS) http://www.cdc.gov/nchs/index.htm

NCHS includes data on vital events and information on health status, lifestyle and exposure to unhealthy influences, the onset and diagnosis of illness and disability, and the use of health care.

Children's Defense Fund

http://www.childrensdefense.org/states/data.html

Each state is profiled individually on indicators that measure critical aspects of children's lives from family characteristics and economic security to child care and youth development.

ChildStats

http://www.childstats.gov/ac1999

American's Children: Key National Indicators of Well-Being is a report compiled by the Federal Interagency Forum on Child and Family Statistics, a collaborative effort by 18 federal agencies. This report presents key indicators including children's economic security, health, behavior and social environment, and education.

Child Trends

http://aqua.crosslink.net/childtrends.org/index.cfm

Child Trends is a nonprofit, nonpartisan research organization that studies children, youth, and families through research, data collection, and data analysis.

Child Welfare League of America (CWLA) National Data Analysis System http://ndas.cwla.org/

The CWLA National Data Analysis System (NDAS) provides access to all states' child abuse and neglect data from 1990-1996, with some data available for 1997-1998. Pre-defined tables and graphs are customizable by state and data year.

FEDSTATS

http://www.fedstats.gov/

This collaborative effort of over 70 federal government agencies uses the internet to navigate publicly-available statistics so that users can find information without having to know which agency produces the data. Major features include "fast facts" links to frequently requested tables, direct links to federal statistical agencies, and regional statistics by state or county.

Justice Research and Statistics Association (JRSA) http://www.jrsainfo.org

Provides information on the collection, analysis, dissemination, and use of data concerning crime and criminal justice at the state level.

Knowledge Exchange Network (KEN) http://www.mentalhealth.org

The Center for Mental Health Services (CMHS) Knowledge Exchange Network (KEN) provides information about mental health for users of mental health services and their families, the general public, policy makers, providers, and the media.

Web-Based Resources

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KIDS COUNT Data Online http://www.aecf.org/kidscount/kc1999

This Web site contains yearly updates on 10 key indicators of child well-being conducted by the Annie E. Casey Foundation, including state profiles, custom graphs, rankings, and raw data.

Maternal and Child Health Bureau The National Center for Education in Maternal & Child Health (NCEMCH)

http://www.mchb.hrsa.gov/

The NCEMCH develops several databases to collect, manage, and disseminate knowledge about maternal and child health, with special emphasis on knowledge gained from Bureau-supported initiatives and programs.

National Center for Education Statistics (NCES)

http://www.nces.ed.gov/index.html

NCES is the primary federal entity for collecting and analyzing data that are related to education in the U.S. and other nations.

National Center for Missing and Exploited Children (NCMEC) http://www.missingkids.org

Online database of missing children by state and city.

National Clearinghouse for Alcohol & Drug Information (NCADI)

http://www.health.org/aboutn.htm

NCADI is the information service of the Center for Substance Abuse Prevention of the Substance Abuse and Mental Health Services Administration. It is the world's largest resource for current information and materials on substance abuse.

National Clearinghouse on Child Abuse and Neglect http://www.calib.com/nccanch/

Provides information on the prevention, identification, and treatment of child abuse, research studies, statistics, and state statutes.

National Adoption Information Clearinghouse http://www.calib.com/naic/

A comprehensive resource on all aspects of adoption, including infant, intercountry, and special needs adoption.

National Institute on Drug Abuse (NIDA) http://www.nida.nih.gov

A compilation of data on drug abuse by 8th, 10th, and 12th graders nationwide, covering issues such as the nature and extent of drug abuse, HIV/AIDS, addiction and abuse research is included in the "Monitoring the Future" pages at: http://www.isr.umich.edu/src/mtf/index.html.

Office of Juvenile Justice Delinquency Prevention

Juvenile Justice Facts and Figures http://ojjdp.ncjrs.org/facts/facts.html

The latest facts and figures on juvenile

justice, delinquency prevention, and violence and victimization.

U. S. Bureau of the Census http://www.census.gov

Contains frequently requested statistical tables on expenditures, employment, salary, births, deaths, and other census-based general data on the U.S. population, State rankings, and state and county profile statistics.

U. S. Department of Education (ED) http://www.ed.gov/stats.html

The U.S. Department of Education shares the latest research findings, statistics, and information on education to help state and local decision makers improve their schools.





National TA Center for Children's Mental Health

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