

**Service Integration Supported by Information Technology -
The N-FOCUS System in Nebraska**

**Report by The Rockefeller Institute of Government
for the Casey Strategic Consulting Group**

Mark Ragan – 4/21/02

Summary

Over the last decade Nebraska has developed an integrated human services information system, N-FOCUS, that includes a wider range of programs than can be found in almost any other state. N-FOCUS is a critical tool that enhances the effectiveness of caseworkers and managers. Because the system includes the majority of human services programs administered by the state, as well as extensive functionality, it supports an expanded role for caseworkers, who work with numerous programs and perform multiple functions, including intake, eligibility determination, and ongoing case management.

But getting to this point has not been easy. The structure of human services programs in Nebraska has undergone a number of changes over the last two decades that have resulted in a relatively simple service delivery system, one in which a single state agency is responsible for administration of a wide range of programs throughout the state. During this period, the role of caseworkers was expanded to include multiple programs and functions. Developing an information system to support the state's programs and the expanded role of caseworkers was in some ways a natural progression.

Timing was also critical. The state needed to replace a number of outmoded, non-integrated systems. The Y2K computing crisis gave added impetus to the goal of replacing old systems. Technology had advanced to the point where the state was able to incorporate artificial intelligence in the system's design.

Although the conditions that exist in Nebraska -- a relatively small population, few urban areas, state administration of programs -- do not exist in many other states, there is much to learn from Nebraska's experience. The story of the development of the system and the factors that contributed to its success provide a number of useful lessons.

Information systems can facilitate service integration – Unlike many other states, N-FOCUS plays a critical role in facilitating client access to multiple programs and services. Because it spans multiple programs and includes a range of functions, the system allows individual caseworkers to administer a broader range of programs and perform more tasks than would otherwise be possible.

It is possible to “over-automate” - System designers believed that a high level of automation would help workers. But users found that having all program rules in an automated format did not give them flexibility in conducting interviews and required significant and time-consuming data input. As a consequence, changes were made to reduce the level of automation and increase flexibility in the interview process.

Artificial intelligence is no replacement for human intelligence - As an “expert system”, N-FOCUS was expected to perform many of the functions previously handled by caseworkers, particularly those functions related to eligibility determination. But with experience, it became clear that caseworkers need to have a working knowledge of the requirements of all of the programs that they administer.

Service Integration Supported by Information Technology - The N-FOCUS System in Nebraska

Background

Introduction

This paper is one in a series of reports that describe efforts to integrate the delivery of human services programs in different locations around the country. Funded by the Casey Strategic Consulting Group, the project is designed to document lessons learned, analyze critical success factors, and describe the operational processes and tools, including information technologies, that have contributed to these efforts.

In April 2002 Rockefeller Institute staff conducted a site visit to state human services offices the state of Nebraska. Locations visited included administrative offices in Lincoln, the state capital, and local offices in Lincoln, Seward and Beatrice. One concentration of the visit was an information system developed by the state that is used for the administration of multiple human services programs. This system – the Nebraska Family On-line Client User System, N-FOCUS – includes a wider range of programs and functions than any other state in the country.

Organizational Structure of Service Delivery in Nebraska

Unlike more populous states, most human services programs in Nebraska are administered at the local level by state employees. Programs administered at the local level by state employees include: Temporary Assistance for Needy Families (TANF) (called Aid to Dependent Children in Nebraska), Food Stamps, Medicaid and numerous Medicaid waiver programs, the Children's Health Insurance Program, Child and Adult Protective Services, Foster Care and Adoption, Child Support Enforcement, TANF and Food Stamp Employment and Training, Child Care, Social Services, Developmental Disabilities, and the Low Income Home Energy Assistance Program. Behavioral health and other health programs are administered locally, generally at the county level.

Site Demographics

Relative to other states, Nebraska has a small population (1.7 million in 2000.) Children and adults living below the poverty level are substantially less than the national averages (12.6 vs. 19.9 percent for children, 9.6 vs. 13.3 percent for all persons).¹ The state's economy is primarily agricultural. The state unemployment rate of 3.4 percent in

¹ Statistics from the U. S. Census Bureau QuickFacts at <http://quickfacts.census.gov/qfd/>.

February 2002 is among the lowest in the country, and well below the national average of 5.7 percent.²

Integrating Human Services in Nebraska

A number of factors have contributed to the integration of human services delivery in Nebraska, including changes in the structure of the state bureaucracy, increasing the functions and responsibilities of caseworkers, and the development of an information technology infrastructure that supports the business processes of local offices.

Moving from County to State Administration

A fundamental change in the administration of human services programs occurred in the 1980s in Nebraska. Up until that point, counties were directly responsible for administration of programs. County employees staffed local offices, and were responsible for the day-to-day operation of programs. The state Department of Public Welfare was responsible for policy-making and program oversight.

Legislation enacted in 1982 brought an end to county administration of welfare programs, and by the fall of 1984, the formal transition to state administration had occurred, though it took additional time before the state and local offices began to function as a unified system. As would be expected, the change had a significant effect on state and local operations. The majority of county employees who staffed local offices transferred to the state. (In fact, a number of the staff interviewed for this report were previously county employees.) Reclassification of employees, adjusting workloads, developing an administrative structure and processes, filling management positions and other activities were time consuming and required substantial effort.

The effects of the shift from county to state administration were numerous. Communication within the system improved. Policy changes were implemented more quickly. Clients were treated consistently throughout the state, which had not been the case under county administration. The change also promoted a coherent philosophical direction in program administration, something that was lacking under county control.³

Increasing the Responsibilities of Caseworkers

In the mid-1990s, the state conducted a study of caseworker workloads and the division of labor in local offices. The study led to a number of changes. One change critical to the integration of services was combining responsibility for intake and eligibility determination with ongoing casework. The state created a new worker designation, Social Service Worker, with an increase in compensation. Frontline workers would be responsible for not only a wide range of programs and services, but also for intake,

² U. S. Bureau of Labor Statistics.

³ From *The Transition to State Administration of Social Services: Nebraska's Experience*, by Peter D. Shearer for the Nebraska Department of Social Services, Lincoln, NE, December 1984.

eligibility determination and ongoing case management. Within local offices, two tracks continued to function side by side - Economic and Family Support, and Protection and Safety.

The change did not come without challenges. Caseworkers did not generally have experience with the eligibility requirements for all of the state programs, so training for new functions and programs was needed. Individual caseloads were large before the change, so increasing responsibilities was seen as an added burden. Currently, the mix of front-line workers in local offices includes:

- Social Service Workers – responsible for intake, eligibility determination, and ongoing casework for a wide range of programs. These include Aid to Dependent Children (TANF), Food Stamps, Medicaid and related Medicaid waiver programs, the children’s health insurance program, child care subsidies, Emergency Assistance, Social Services (e.g., transportation, chore services), Developmental Disabilities, Low Income Home Energy Assistance, and in some offices, county General Assistance.
- Child Protective Service Workers – responsible for child welfare programs, including child protective services, adoption and foster care programs, and related programs and services. (Adult Protective Services is administered by specialized workers located in many of the local offices.)
- Resource Development Workers – responsible for developing community resources to provide services to clients. These staff develop contracts for such needs as chore services and child care.

Another result of the study was the recommendation that in order to support the wide range of programs for which caseworkers were responsible, better information systems were needed. At the time, there was little integration of systems. To the extent that automation existed, each program used one of eight different systems. As a consequence, the state began development of a new system that from the outset was designed to incorporate a broad range of programs and functions. The new system, N-FOCUS, is described in more detail below.

Reorganizing State Offices

In 1995, the governor issued an executive order calling for a review of the health system in the state. The project was soon expanded to include human services programs. Called the Nebraska Partnership for Health and Human Services and composed of government officials and private citizens, it recommended significant changes in health and human services program administration, summarized as “the most far-reaching government reorganization project ever undertaken in Nebraska.”⁴ Three key elements of the plan were that policy would be driven by desired outcomes, government processes would be

⁴ From Nebraska Health and Human Services: Common Sense Solutions for a Health Nebraska, by the Nebraska Partnership for Health and Human Services, Lincoln, NE, December 1996.

restructured to be more efficient at producing these outcomes, and that new relationships would be developed between the state and communities to achieve these outcomes.

In 1996, the Nebraska legislature enacted legislation that reorganized the Aging, Health, Public Institutions, and Social Services agencies, and the Office of Juvenile Services, creating the new Health and Human Services System. The new agency is made up of three departments: Services, Finance and Support, and Regulation and Licensure. The new agency is organized along functional lines, consolidating similar functions from the five agencies.

Local office operations for human services programs is the responsibility of the Chief Deputy Director of the Department of Services, who is also responsible for program policy. Local office administration under the Chief Deputy is consolidated in three regional offices.

Developing the N-FOCUS system

Developing and implementing N-FOCUS took more than seven years. As with any major system development effort, many steps were involved, including planning, securing funding approval from the state and federal governments, system design, hiring a contractor, construction, installation of the hardware and telecommunications infrastructure, testing, staff training, conversion from legacy systems, and final implementation. Each of these steps brought unexpected challenges. The reorganization of state human services agencies and changes in caseworker functions described above occurred during system development, adding to the challenges.

N-FOCUS is now a fully automated eligibility determination and case management system that integrates twenty-five human services programs. It is the only system in the country that has integrated child welfare case management functions in the same system as other human services programs. Built in a client/server environment, the system makes use of rules-based artificial intelligence to determine eligibility for multiple programs, including:

- Aid to Dependent Children (the TANF program)
- Employment First
- Food Stamps and the Food Stamp Electronic Benefit system
- Food Stamp Employment and Training
- Child Care
- Emergency Assistance
- Adult Protective Services intake
- Developmental Disabilities case management
- Children and Family Services
- Social Services for the Aged and Disabled
- Social Services for Children and Families
- Subsidized Adoption Assistance

- Subsidized Guardianship Assistance
- Refugee Resettlement
- Medicaid eligibility and/or card issuance for
 - the Aged, Blind and Disabled
 - Former State Wards
 - the Independent Living program
 - Juvenile Court
 - the Adoption program
 - Katie Becket Plan (a Medicaid Waiver program)
 - Subsidized Guardianship
 - Waiver programs for Adult Developmental Disabilities, Aged and Disabled, and Child Developmental Disabilities,
 - the Early Intervention Waiver program

In addition to assisting caseworkers in determining eligibility, the system has extensive case management functionality, includes information on available resources and services, and is used to make payments to clients and providers. N-FOCUS electronically interfaces with other state and national systems, such as the state Bureau of Motor Vehicles, Unemployment Compensation, the Internal Revenue Service, and the Social Security Administration.

Developing the system was not only time-consuming. Experience with initial attempts to integrate the system into local office business processes showed that changes were needed. Originally, the expectation was that the system would be, as one manager put it, “Everything for everyone.” Designed as an “expert system”, it was expected that caseworkers would conduct interactive interviews with clients, with no need for a paper application. Most paper processes would be replaced with electronic processes. All eligibility requirements and conditions would be built into the system for all programs, so that all that would be required by caseworkers would be to follow a script; the system would make appropriate eligibility decisions.

But things didn’t turn out exactly as planned. The interactive interview process was slow and cumbersome. The system was initially less than fully reliable, necessitating work-arounds and the need to continue using paper applications. After the initial rollout, a subsequent software release made major changes. Rather than follow a step-by-step script, workers can navigate among the various system functions, dictated by the flow of the interview, rather than by the system. Paper applications are still in use. Caseworkers make eligibility determinations for programs with relatively simple requirements.

In general, the intake process is as follows: after a check is made to determine whether an applicant is already in the system, he or she is given an 11-page form to complete and return to the office; once the application is returned, an appointment is made, at which time the applicant is expected to present necessary proofs; during the interview, the caseworker reviews the information with the applicant; the caseworker makes input into the system, sometimes using the computer monitor as a tool to verify information with

the applicant; if all required evidence is available, the applicant will leave the office knowing which benefits he or she is eligible for, and with appropriate information and referrals to needed services. In larger offices, many of the services are on site.

Thus, for many clients there is only one contact at the state Department of Health and Human Services. For caseworkers, a single system determines eligibility, tracks services, makes payments, and provides needed information. The fact that child welfare program information is included in the same system as income support and other programs promotes sharing of information, with appropriate safeguards, between programs. No longer does a report of a change in client circumstances to one program go un-noticed in another program. Changes in client circumstances that potentially affect multiple programs are easily processed by the system. One example is Medicaid eligibility after termination of Aid to Dependent Children (TANF). In many states, loss of TANF eligibility automatically terminated Medicaid. Because the system facilitates the transition, this was not a problem in Nebraska.

Family Resource Centers

In addition to the changes described above, the state has taken additional steps to make it easier for clients to connect with needed programs and services. One example is state participation in Family Resource Centers, which are family-focused community-based collaboratives intended to strengthen and preserve families and individuals within communities. There are more than 20 centers located throughout the state. The mix of services varies from location to location.

One such center is located in Beatrice. The center combines the following service providers in a one-stop arrangement.

- Southeast Community College– Beatrice Campus
- Nebraska Department of Health and Human Services: Supportive services provided for all ages, including: basic necessities, child care, medical insurance assistance, transportation, job training skills and protection/safety of children and adults.
- Developmental Disabilities: Supportive services provided for individuals and families who have physical and educational disabilities.
- Blue Valley Community Action: Intervention programs for individuals and families dealing with critical issues, including: basic necessities, shelter and assistance in successful family management.
- Head Start/ Early Head Start
- Foster Grandparent Program
- Southeast Nebraska Mediation Center: A dispute resolution service for individuals and businesses. Training is offered in Conflict Resolution.
- Department of Labor Workforce Development: Training Services: A partnership with business and industry to provide individuals of low income or displaced workers with employment skills and reentry into the workplace.

- Employment Services: Services designed to match job openings with qualified applicants.
- Career Center: A multi-media Center, open to the public, providing resources in education opportunities, skill training and employment exploration.
- Mother to Mother Ministry: A program providing mentoring and parenting skills to families and children of all ages.
- Parents As Teachers: One component of this PAT project is personalized home visits provided by a certified parent educator. Parent educators offer timely information on child development and ways to encourage learning.
- Parents of All Ages: A partnership of Southeast Community College and the Nebraska Department of Health and Human Services to provide programming in GED preparation/completion, college preparation, life skills and parenting skills for families who qualify.
- Cedars Youth Services: Cedar's Tracker Program is an intensive one-on-one program to provide supervision and support for juveniles on parole.
- WIC (Women, Infants and Children): Nutritional program and health screening for prenatal and postnatal women, infants and children to age five.
- Continuum Employee Assistance – Training – Consulting: Professional assessment, counseling and referral services to employees and families of member companies for a variety of personal critical issues.
- Consumer Credit Counseling: Provides budget counseling and debt management programs for consumers experiencing financial management issues.
- Methodist Employee Assistance Program: A short term counseling service provided to employees and families of member companies to assist in dealing with critical personal issues.⁵

Lessons Learned

State officials suggested the following lessons, based on their experience developing an expert system that supports multiple business functions and programs.

More attention should have been devoted to change management - Many of the managers interviewed for this report said that more resources and effort should have been devoted to change management when the system was implemented. Caseworker responsibilities changed dramatically around the same time as the system was implemented. In addition to the changes in responsibility, the relation between caseworkers and managers changed, because the system became the policy expert, rather than the supervisor. Building trust, dealing with worker resistance, and securing the support of local managers, including their use of the system, would have facilitated acceptance of the system.

Creation of a User Group facilitated system acceptance - Although staff with program expertise were actively involved in the design and implementation of the system, initially there was no ongoing involvement of field staff. The state created a User Group with

⁵ Information from the Family Resource Center website at <http://www.frcn.org/Beatrice/index.htm>.

representatives of the user community, including staff from local offices. The User Group provides a vehicle for local office staff to communicate their needs: the group helps prioritize system fixes and the development of new functionality. The end result is better buy-in and acceptance by users.

Staff turnover during the development process delayed implementation - Initially, state staff assigned to the project were temporarily assigned to the development team. As a consequence, there was a great deal of turnover. This resulted in additional time and resources for training and mentoring, which had not been factored into the original project plan, creating delays.

Critical Success Factors

In addition to the organizational and administrative changes in Nebraska's human services programs described above, a number of other factors directly related to management of N-FOCUS development were critical to its success.

Merging systems development staff and program experts – As is often the case in developing an information system such as N-FOCUS, technical experts responsible for the actual computer code and functions are not conversant with the programs and processes to be included in the system. This can lead to a lengthy cycle of building system functions, review by program staff who point out problems, and revisions. In Nebraska, systems developers work closely with program staff – they are collocated in the state office. This encourages constant interaction between developers and program experts, reducing the need to revise code and speeding the development process.

Federal funding and cooperation facilitated system development - Enhanced federal funding (federal funding at levels higher than the standard 50/50 federal/state cost sharing arrangement) was initially available for the income support functions of N-FOCUS (until 1994) and for the child welfare functions. This additional funding made a significant difference in the state's capacity to fund the system. By the end of 1998, the state had expended over \$58 million for the system, two-thirds of which was federal funding. State officials also suggested that the cooperative funding and approval arrangement between the federal departments of Health and Human Services and Agriculture facilitated system development.

The timing of the Y2K computing crisis worked to the advantage of system implementation - The state had decided that rather than modernize existing legacy systems, it would replace those systems, in part in order to assure continued information system functioning after December 31, 1999. This decision made implementation of N-FOCUS an extreme priority. Fortunately for the state, the effort was successful.

Conclusion

A number of factors in Nebraska have created an environment conducive to the integration of human services programs in local offices and the development of information technology that facilitates service integration. The number of clients and the size of the workforce are relatively small. The client population is more homogenous than in many states. The state is mostly rural, with small local offices and limited staff; developing a system that supports caseworkers who administer multiple programs and perform multiple functions was a natural fit. The fact that a single state agency has responsibility for a wide range of human services programs simplifies administration.

While N-FOCUS is impressive in many ways, it is not perfect. Staff complain that it is difficult to get customized reports from the system, though management is taking steps to address this problem. The system has not replaced paper processes. The software that supports artificial intelligence functions is not easily supported, but changing to other software would be a major undertaking. The system is challenged in certain complex, multi-program case situations.

Nevertheless, the N-FOCUS system is a successful example of information technology that supports program administration and services integration. It is unusual in its scope and functionality. It supports administration of a wide range of programs, and includes the major functions of local and administrative offices, including intake, eligibility, case management, resource management, client and provider payment, reporting, caseload management, and analysis. The staff who participated in the development of the system and who work with it on a day-by-day basis are justifiably proud of what they have accomplished.