A CASE STUDY: THE ROLE OF TELECOMMUNICATIONS
IN PROVIDING EFFICIENT HUMAN SERVICES
TO VERMONTERS IN NEED

A Report by the Vermont Business Roundtable
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The Vermont Business Roundtable is a non-profit, non-partisan organization of 120 chief executive officers representing geographic diversity and all major sectors of the Vermont economy. The Roundtable is committed to sustaining a sound economy and preserving Vermont’s unique quality of life by studying and making recommendations on statewide public policy issues.
Executive Summary

Once considered tools that were cold and impersonal, telecommunications and computer technology are helping the Vermont Agency of Human Services (AHS) to integrate and personalize its myriad of services to Vermonters in need. That AHS is laying the groundwork for technological integration of its services is indeed commendable, if not amazing, considering the fiscal constraints under which the agency has operated.

For the better part of the last decade, AHS has continued to meet the needs of Vermonters most in need—despite a sharp drop in federal funding, a steady decrease in state funding, a 21 percent reduction in personnel, an increase in demand for services and a computer infrastructure that can only be described as antiquated.

It is this last factor—the agency’s technological infrastructure—that must be addressed if the agency is to move forward in its attempt to eliminate redundancy and maintain, if not increase, the quality of services it offers Vermonters.

As federal funding shriveled and the money received from the state for AHS’ funding of its technological infrastructure was slashed during the state’s most recent budget crisis, the agency has nevertheless moved forward in an attempt to:

- integrate services through a “gatekeeper” approach, in which citizens can receive multiple services from a government agency in a way that is not redundant or unnecessarily time-consuming;

- do more with less. Technology, coupled with an internal realization and organizational structure that promotes autonomous decision-making from agency personnel;

- coordinate and share delivery of services with towns and nonprofit agencies.

Modern telecommunications and computer technology would greatly aid the agency in its pursuit of these goals, yet have done as much to hold the agency back as to help. Antiquated systems—including some that are not capable of sharing information—require redundant administrative reporting. The disrepair of some systems has not only cost time and valuable personnel-hours, but scarce funds to provide patchwork repairs that will eventually fail again.

Operating on capital expenditure budgets that range between 1% and 2%, AHS cannot hope to join the technological age without increased funding devoted to modernizing its systems. Compare this with similar spending in the private sector, which can range up to 10% to 12% of total budget.
A penny-wise, pound foolish approach to upgrading the agency’s technology is wasteful today, and doubly so tomorrow when replacement will become inevitable. Increased capital spending will help the agency provide more thorough and efficient services to Vermonters.

The Challenge

The State of Vermont’s Agency of Human Services (AHS) is one of the most all-encompassing state social services agencies in the country. Accounting for almost one-third of Vermont’s budget, Human Services meets a myriad of citizens’ needs, from mental health and child protection services to Medicaid and welfare assistance.

One of the country’s pioneers in providing integrated services to its citizens, AHS has made a dramatic impact on the lives of many Vermonters. The state continually ranks at or near the top in various quality of life surveys, and hard numbers show some of the reasons why. Vermont has reduced child abuse rates by 30 percent over the last five years and teenage pregnancy rates by 20 percent over the last four years. Child support payments have more than doubled during this same time span, while the state boasts top rankings relating to the number of toddlers who are fully immunized and the percentage of children with health insurance.

Part of this success can be attributed to the department’s philosophy, a community-based, customer-driven approach in which prevention is key and outcomes, not transactions, are featured. This three-pronged partnership, in which AHS and local service providers work with citizens who play a large role in determining their own outcomes, depends greatly on integrated information sharing. Technology, as in telecommunications, computers and software applications, will play a crucial role in the failure or continued success of AHS in meeting the needs of its clients.

Unfortunately, upgrading the agency’s technological capabilities requires funding—money that is increasingly unavailable. Federal funding of state programs is shrinking, state funding is, at best, unpredictable and largely based on year-to-year budget challenges, demand for services is increasing and the state workforce is dwindling. These trends promise to continue unabated, yet the comprehensive use of technology can help prevent a negative impact on services. The challenge: how to generate funds from dwindling resources to upgrade technology today that can result in increased efficiency and service tomorrow.

Goals

The ultimate goal of the Agency of Human Services is simple: to improve the lives of Vermonters by providing seamless delivery of multiple services from the various subagencies within AHS. With this in mind, AHS initiated a pilot program in the Morrisville area in which a partnership of government and community service providers tried to achieve the following:

- **Knock down artificial walls by initiating a single-source entry** for families and individuals into as many AHS services as needed, as seamlessly as possible. Historically, AHS employees, like most state and federal government workers, have had strict vertical line
accountability. Typically, a person in need of services has been initially processed by a gatekeeper, who would then direct that person to as many departments or agencies as needed. A person needing three services would, for example, need to meet with the gatekeeper and three separate line employees in as many as three different organizations. In Morrisville, where all eight AHS sub-agencies are housed under one roof, generalists have replaced line specialists to deliver initial services in a new, integrated way. One employee, for example, can now arrange integrated services for an individual to receive social welfare benefits and employment training, or for different members of one family to receive child protection, substance abuse counseling and early childhood education services.

• **Focus on outcomes.** Traditional government accountability focuses on line-item responsibility: the number of people served or dollars spent per person served. By focusing on outcomes, AHS has redefined traditional accountability by putting the spotlight on cost-effectiveness and results. For example, AHS invested about $2 million over the last seven years in prevention, early intervention and early childhood services for Lamoille County. This investment saved AHS and the community $3 million over the same period, dollars saved because the investment in these services prevented child abuse, injury and illness that might otherwise have occurred. These programs would not have been as effective without an integrated approach to offering services to families at risk.

• **Promote community involvement and deliver more services through local, nonprofit organizations.** Vermont has been a pioneer by working in partnership with local and state nonprofit service providers. By examining outcomes, communities can look in the mirror, so to speak, and explore ways to work with state government to make its citizens in need as productive as possible.

• **Foster self-determination.** Contrary to anti-government thinking, an integrated approach toward providing human services allows individuals and families to take, not relinquish, control of their lives. Information sharing, for example of AHS information on the Internet that includes eligibility criteria for services, can offer citizens greater access to and exchange of information than ever before.

• **Achieve cost-efficiencies.** Federal funding of programs will continue to shrink through this decade and state funding will not make up the shortfall. Excluding Department of Corrections staffing, the number of AHS staff has decreased by 21 percent since 1981 and has fallen 12.2 percent including Corrections personnel. During this period, personnel has consumed an ever smaller portion of AHS budgets, dropping from 22.4 percent in 1990 to 13.6 percent today, even as demand for services has escalated. This decrease in personnel has not been diluted by the use of temporary workers, whose numbers remain at 1985 levels, but productivity per worker has tripled. During this time, the quality of AHS services—as shown by outcomes—has improved. Clearly, there is little room for further cost-cutting by continuing the same pace of downsizing if AHS is to maintain and improve this quality.

• **Increase technological and telecommunications capabilities.** This is the one issue that potentially ties all the goals together. How better to blunt the impact of decreased funding and
increased demand for services than by using technology to make up the shortfall? How better to integrate social services programs for Vermonters than telecommunications that promote the sharing of information across AHS departments and nonprofit service providers? How, in fact, is it possible to share this information without increased telecommunications capabilities, as agency personnel take on additional and more diverse responsibilities? Self-determination? More community involvement? Again, technology will be an essential tool if these goals are to be realized.

The Role of Technology

Government is nothing if not an entity that gathers, collates, analyzes, shares and acts upon information. Increasingly, these functions depend on telecommunications, not as an end in itself, but as a means to an end. The state of technology in AHS, however, is at best disturbing. With major systems that range from between 10 and 15 years in age, the state of technological disarray within AHS is reaching critical mass.

AHS continues to rely heavily on older mainframe computer technology, with three separate mainframes serving the Agency’s various departments. Character-based, meaning these systems are text-based and not Windows-based, the mainframes depend on costly customization to share information with end-users, whether they are AHS district offices or community service providers. Because there are different operating systems, sharing information is difficult, when not impossible, among systems.

Antiquated, outdated systems exact a more severe cost, measured in dollars, as the trials and tribulations in AHS show during the last year. In January, more than 200 mainframe controllers, terminals and printers become nonfunctional for hours—and days—at a time, a trend that would continue. Through November, this resulted in thousands of hours of lost work time for personnel in both the Central Office and in the field. In February a mainframe crashes, leaving staff without a way to perform word processing, access AHS and Health Department databases for statistical analysis and planning, and receive or send e-mail. The problem takes one and a half weeks to resolve, resulting in hundreds more work hours lost necessitating manual input.

An old software program acts up in August. Only a “patch,” a short-term solution, averts a shutdown. The original vendor no longer supports the software and the chosen replacement vendor has gone out of business. Then, in November, Burlington district office workers for the Department of Social Welfare can’t generate notices or checks for two days because of a printer failure. The printer also chewed up the printer ribbon, which is no longer manufactured, and only luck intercedes—a spare ribbon was found in the Springfield district office. Cannibalizing scrapped equipment is often the only solution for AHS’ repair problems.

Neither the public nor its elected officials should be under any illusion as to the potential consequences of the agency’s deteriorating technical infrastructure. Failures of these systems can place clients, patients and employees at risk. The likelihood of fraud, waste and abuse increases. And the quality of management and policy decisions by senior officials and the legislature is compromised when the underlying data is inadequate or inaccurate.
Compare the present technological situation in AHS with the role technology should play. When modern computer and telecommunications technology combines with departmental emphasis on an integrated approach to providing social services, the results should include:

- An information base accessible not only from AHS agency to agency, but Central Office to field and AHS to community service providers and even to clients;

- A communication tool in which e-mail capabilities transfer correspondence and data instantly and securely;

- A tool that coordinates the efforts of AHS departments and service providers;

- Improved access to programs and services by citizens;

- A means to comprehensively analyze data from both individual AHS departments or from multiple departments.

**Issues and Barriers**

When the cost of repairing old systems can run 10 to 20 percent of the original cost of the equipment, the simple answer would be to replace the equipment. While increased capital investment, sustained over time, is essential, this increased investment must also be matched by policy and cultural changes that acknowledge organizational resistance to change, public perception, the continuous evolving state of telecommunications, the increased emphasis on community control and de-emphasis of government mandates and funding.

**Funding**

During the past three years as Vermont fought to balance its budget, the dollars allocated AHS for data and telecommunications systems investment and maintenance were halved to 1.1 percent of total budget. If this year’s request to the Legislature is approved, the percentage for fiscal 1998 will rise to 1.7 percent. Contrast this to private enterprise, where technological investment of 10 or more percent annually in not uncommon.

**Devolution of Government**

The trend seems irreversible: federal and state funding of programs will continue to decrease. To counterbalance this trend, communities and even nonprofit service providers will need to pick up the slack, while government must continue to search for and refine the most efficient means to conducting business.

**Systems/Training**

When funds are found for investment, they must be spent on data and telecommunications systems that recognize the lightning evolution of technology, the need to provide comprehensive
data across systems and the challenge to make this data accessible to service providers and individuals. For example, will technological investment factor in predicted changes for the near future, in which telecommunications can be accessed via telephones and televisions? And will both government and the public tolerate mistakes, inherent in any adaptation to change? Newer systems, less costly to repair, combined with new staff responsibilities, will also create an urgent need for training and retraining. The challenge: to find both money and time to train employees.

To use shrinking funds and workforce more efficiently, to empower government and nonprofit staff to take greater control, up-to-date systems must be in place to facilitate this process of incremental change. If today’s mantra of “doing more with less” is to become reality, AHS technology must catch up to the 1990s while preparing for a new century.

Organization

The paradox of systems and their role in helping to effect change is that for decentralization and integration to occur, centralized decisions must be made. Uniform policy changes, such as universal eligibility applications that can be used across AHS departments, must be made. Organizational structure must also change to mirror the new decentralization, but that brings up the “chicken or the egg” riddle.

Which comes first? Structural change that compels staff to change from a line-driven organization to a decentralized, customer-driven operation? Or cultural change, in which increasingly empowered and decentralized staff prompt form to follow function?

If the reality is that localized decision-making will gradually replace Central Office edict-serving, front-line staff must embrace new and diverse responsibilities and managers must relinquish some of their power. When structural change precedes cultural change, there is the danger of staff resentment and backlash. When the opposite occurs, mixed messages and unclear definition of duties can create confusion and stagnation. As the Morrisville project demonstrates, the answer may lay somewhere in between.

Public Perception and the Long-term View

As Vermont’s citizens increase their use and understanding of technology, the public will assume that the technology is there to meet their needs. From health care to public safety to financial services transactions, needs are increasingly met via telecommunications.

The public expects the technology is there to meet their needs, thus capital expenditures are always among the first to go during tight fiscal times in government. Who will choose systems over benefits to people? Certainly not the public, consumed by budget problems and hard choices at hand, nor the legislators whom they elect, who follow the wishes of the constituencies that elect them.
When the question is framed differently, however, would the answer be the same? Would voters opt to cut capital expenditures today if they knew that a crumbling technological infrastructure could cost many times the amount to repair or replace tomorrow? And if the cost is many times greater tomorrow and capital spending becomes mandatory, where will we find the money to provide sufficient benefits?

A basic economic premise is that the cost of anything today costs less than it will tomorrow, a difficult premise for legislators and citizens to fully grasp. Well-run businesses understand that preparing for the future by investing today heads off problems tomorrow. Elected officials, by nature of their jobs, typically view the future shorter term, as in election cycles. The challenge is to change public perception of technological investment, which in turn will change legislative perception, with a view toward the long term. This will happen when both legislators and voters realize that the problem is about people, not about automation. It is the latter that can help AHS to serve people more efficiently and effectively within their own communities, a goal made easier if level capital improvements were guaranteed for the long term.

*Security: Confidentiality and Systems Integrity*

With telecommunications pervading our lives and the Internet becoming a regular part of it, many people are concerned about confidentiality. What information should remain private? Can confidentiality ever be guaranteed?

The answer to the second question is another question. “Can confidentiality be fully guaranteed when the system is paper and locked file cabinets?” Of course, no person or organization can ever fully guarantee confidentiality, although they can strive for it.

Beyond confidentiality there are important issues involving the integrity and security of data, transactions and systems. AHS disburses millions of dollars to individuals, to nonprofits on behalf of individuals, and as grants. Its databases not only drive money and policy, but directly affect individuals’ lives. Prudent, disciplined and effective security policies and practices are essential components of the agency’s and the state’s telecommunications plans.

Security of systems, transactions and data is one of the fasted evolving areas of information technology. Combinations of hardware (fire walls and smart tokens, for example) and software (encryption), when deployed according to well thought out security policies, can provide a very high level of security and confidentiality. Because the weakest link determines the strength of the whole, the design and implementation of security policies must be centralized and apply across all government agencies and departments.

The appointment of a state information security officer would ensure a more thorough and uniform application of security and confidentiality policies across Vermont agencies.

*Federal Constraints*

Antiquated systems that don’t speak to each other, so to speak, are a telecommunications barrier to integrated service for AHS clients, but certainly not the only barrier. Whether older systems
adapt to function, or function changes with systems, federal constraints prohibit information sharing in many cases. In an age when federal block grants, such as one Vermont recently received for social welfare, are given to states, strict line item accounting and line-driven rules and restrictions still apply.

**Strategies: A Case Study**

The Agency of Human Services’ Morrisville district became a pilot site two years ago to test a new, coordinated and comprehensive way of delivering social services to the area’s residents. The district management team, working in conjunction with People In Partnership, developed systems and fiscal strategies to help find administrative efficiencies, budget reductions and better ways of doing business.

From one office, AHS provides services from its vocational rehabilitation, child support, health, SRS, social welfare and probation and parole disciplines. The agency’s local partners include the Lamoille Family Center, Lamoille Home Health Agency, Lamoille Mental Health, Central Vermont Community Action, Hyde Park Area Agency on Aging, Copley Hospital, Morrisville Elementary School, People’s Academy, Evenstart and Employment & Training.

The district’s family-centered services were designed to be flexible and responsive, with 48 agency staff and 12 nonprofit staff working in partnership to determine, serve and adapt to changing community strengths and needs.

Agency staff shares many management and administrative responsibilities, while the district also is exploring the feasibility of outsourcing certain functions. Additionally, five priority needs were identified as keys to the success of the program:

1. **Expand e-mail capacity.** AHS-Morrisville employees now have individual e-mail addresses that allow them to communicate within government or outside with nonprofits providers. Nonprofits have only one e-mail address per organization, making confidential use of e-mail to coordinate services impossible. AHS will soon provide individual e-mail accounts to all workers at these nonprofits.

2. **Common client database.** When clients give permission to let AHS share certain information across departments and nonprofits organizations, they need to provide that information only once. For clients to enter the system through any door, all AHS and nonprofit workers have access to this common information.

3. **The Family Development Plan (FDP).** A computerized version of FDP produces a single document that allows an employee who has been given client permission to view the client’s goals with other service providers. Team members designate one employee to take the lead in providing and integrating services for that client.

4. **Rewrite the eligibility application.** Following a legislative request to conform to so-called open architecture standards, the Prescreening and Information and Referral application is being
rewritten, providing clients with greater safeguards for confidentiality and giving workers with permission easier access to information.

5. Training. Both AHS and nonprofit employees are receiving additional family development skills and computer training. A key component to this experiment is that clients control the process. They may give permission to share information, which can then be used to integrate services for them and their families, or they may choose not to share the information and opt instead to deal with separate case managers. Technology-wise, the Morrisville staff has full access to Windows-based, desktop computers.

Even with limited financial resources, the Central Office of AHS has eased the transition to this new way of doing business. Some recent statewide enhancements or additions include:

- an Internet presence for AHS services, giving clients, employees and nonprofits greater access to all types of service information. With the host computer and telecommunications hardware already in place, investment in software can help transform the Internet into an Intranet, in which another level of safeguarded communication permits confidential transmission of sensitive case information.

- Replacing multiple departmental forms with the development of a single eligibility application form that includes 25 universal questions. A recent cost analysis, examining only the applications processed for SRS Childcare Services, Vocational Rehabilitation, social welfare programs and the Health Department’s WIC Program shows astonishing potential savings. Nearly 70,000 applications are processed annually from these four areas. Using a figure of 30 minutes per application at a staff cost of $20 per hour, eliminating redundancy would save more than $686,000. Add in 4,000 hours of redundancy at the nonprofit level—money that nonprofits could better use for added investment—and the figure rises to more than $766,000.

- providing technical support from both outside consultants and 50 technical specialists within AHS.

- enacting an agency-wide confidentiality policy in July, that lays the groundwork for what and how much information may be shared with whom, and only after clients have given their permission.

Conclusion

The pilot program in Morrisville offers a solution even in a time of fiscal belt-tightening; innovative approaches can help people do more with less. The answers to hard questions about the role of telecommunications within the AHS system is less how much money will it take then a matter of how available money can best be spent.
The irony of focusing on telecommunications is that this decidedly impersonal technology has the potential to stamp personal solutions onto individual problems. When combined with a philosophy, structure and attitude that comes with the new way of conducting business, technology offers great promise as a key tool in helping government to help people to help themselves.

If technology is to play a greater role in the way AHS provides services, even as department staff and funds decrease, level funding must be provided with a look at the long term, a comparison of “doing with” and “doing without.” Simultaneously, AHS must provide the framework for technology to reap its great potential by offering the departmental systems the encouragement, responsibility and freedom that allow employees and community service providers to thrive in this new environment.

Finally, reality must accompany investment. While today’s data and telecommunications technology couldn’t be predicted just five or ten years ago, we can only guess what tomorrow’s innovations will bring. Mistakes will occur along the way, a natural process of adapting to change. The key is to understand that mistakes will be made—mistakes that should be minimized and educational—on the road toward finding telecommunications solutions that will provide the most efficient services for Vermonters in the 21st century.
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