

**Final 211 Report**  
**SURVEY OF EXISTING I&R SERVICES**  
**AND A**  
**NEBRASKA 211 SYSTEM COST/BENEFIT ANALYSIS**

**Spring 2000**

**Submitted to:**  
**The Nebraska Health and Human Services System**  
**and**  
**The United Way of the Midlands**

**by**

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## REPORT ACRONYMS

211	Several I & R systems around the country make use of the 2-1-1 three digit number for I & R information, for the purposes of this report when 211 is used, it will refer to a three digit number for coordinated information and referral.
ACD	Automated Call Distribution – a computerized system to manage incoming calls
AFDC	Aid to Families with Dependent Children -- former name for the federal welfare program now referred to as Temporary Assistance to Needy Families)
AIC	Area Information Centers used in Texas' 211 system
AIRS	Alliance of Information Referral Systems – the North American association of information and referral organizations
BOSR	Bureau of Sociological Research at the University of Nebraska -- Lincoln
CIRS	Certified Information and Referral Specialist – a designation used by AIRS to denote attainment of individual standards of competency
COMPASS	Iowa's information and referral system for persons with disabilities.
FCC	Federal Communications Commission
FLAIRS	Florida Alliance of Information and Referral Systems
FTE	Full Time Equivalent – that is 2080 annual hours of employment (40 hours per week for 52 weeks)
GAO	Federal General Accounting Office
GED	General Equivalency Diploma
GIS	Geographic Information System
I&R	Information and Referral
IRS	Information and Referral Specialist – an individual who staffs an information and referral service
LAN	Local Access Network
LLCHD	Lincoln Lancaster County Health Department
N-FOCUS	NHSS' Nebraska Family On-Line Client User System – a computer system that automates service delivery and case management data for several public assistance programs

NHHSS	Nebraska Department of Health and Human Services
NRRS	Nebraska Resource and Referral System – NHHSS’ statewide database of resources
PRWORA	Federal Personal Responsibility and Work Opportunity Reconciliation Act (1996) that transformed the welfare system in the United States
TANF	Temporary Assistance to Needy Families – a current federal welfare program
TIIAP	US Department of Commerce Telecommunications and Information Infrastructure Assistance Program
TTY/TDD	Telecommunication Devices for the Deaf

## I. EXECUTIVE SUMMARY

In June, 1999, the Nebraska Department of Health and Human Services (NHHSS) and the United Way of the Midlands requested that the University of Nebraska Public Policy Center coordinate a feasibility study of a statewide Information and Referral (I&R) system for health and human services. Because several I&R systems around the country make use of the 2-1-1 three digit number for I&R information, and there are a number of states investigating reserving 211 for statewide I&R services, this report uses the 211 nomenclature although there has been no state Public Service Commission designation of 211 for this purpose in Nebraska. This report defines, describes, and calculates the anticipated quantifiable and non-quantifiable costs and benefits of implementing such an I&R/211 system.

Data for this report were obtained from:

- a survey of existing I&R services in Nebraska;
- interviews and consultations with I&R experts and officials, from Nebraska as well as from various jurisdictions around the country;
- examination of reports, studies, marketing information, and usage data obtained from jurisdictions with 211 systems or coordinated I&R services in place;
- reviews of other governmental reports, materials from selected national organizations, I&R listservs, and research literature; and,
- a cost/benefit analyses of three different I&R configurations that could be adopted for a Nebraska 211 system.

There is little national, comparative information available about call volumes and costs to administer coordinated I&R systems. This study presents some comparative information about call volumes as a percentage of population (ranging from less than 1% to over 38%), and a rough estimate of average cost per call (ranging from \$3.56 to \$50.00).

Throughout the United States coordinated I&R services offer information to persons in every life situation from the working mother trying to locate reliable child care, to the elderly person requesting information about in-home health care alternatives. I&Rs throughout the country find that their services are used in critical life situations, such as persons requiring immediate resources for shelter, food, or relief from abuse. Coordinated I&R services (including 211 systems) are often funded through a combination of public and private funds. Because a number of federal and state-funded programs mandate information and referral access, some coordinated I&Rs have collaborated with these programs, both in funding and in including information for mandated programs into the coordinated I&R service. Three I&Rs (the greater Atlanta, Georgia area; the greater Columbus, Georgia area; and the state of Connecticut) have converted from 11-digit dialing numbers (traditional toll-free numbers) to the three-digit dialing code 2-1-1. The Atlanta and Connecticut 211 services have found that the three-digit code has resulted in significantly increased usage. The Columbus, Georgia 211 system has just completed implementation, therefore, no usage information is yet available.

**In Nebraska, there has been considerable interest in developing a statewide, coordinated 211 I&R service that will provide toll-free access, 24-hour/7 day a week, answered by trained specialists, and backed by a accurate, current database of resources.** Several state task forces and organizations, most notably the Long Term Care Task Force, have identified the need for coordinated I&R services to provide better coordination and information for Nebraskans. The Nebraska 211 Coalition, comprising representatives of non-profit and for-profit organizations, state government, and other agencies has been investigating the possibility of establishing a coordinated I&R system in Nebraska. Participants in two statewide conferences addressing I&R systems in 1998 were enthusiastic about the possibility of a statewide, integrated

I&R system in Nebraska. In 1999, the Unicameral approved LR 49, providing for an interim study to investigate the feasibility of a statewide I&R system.

Over the past several years, the Nebraska Unicameral has been grappling with I&R issues in the context of particular groups. For example, during the current legislative session, legislators considered bills mandating I&R services for individuals with brain injury (LB 1225) and women seeking health-related information (LB 480). During the previous session of the Legislature, the Unicameral successfully passed LB 148 to establish the Nebraska Lifespan Respite Services Program which calls for establishment of “a single local source for respite service information and referral.”

Nebraska currently has a multitude of I&R services providing information to Nebraskans about various services and resources. As part of the survey that was conducted for this project, over 800 agencies across Nebraska were contacted and asked about their I&R activities. Two hundred and seventy-six agencies replied they were involved in I&R efforts. Of this number, 193 agencies provided specific, I&R information. Because two agencies indicated they received so few I&R calls, they were omitted from analyses. Thus, usable data were obtained from 191 agencies from across Nebraska, and approximately 80% of these agencies provided annual call volume information. Their responses indicated *there are over 900,000 I&R calls annually*. When asked to estimate paid staff hours devoted to providing I&R services, almost 2/3 of the agencies responded, and their estimates suggest there is the equivalent of *161 FTE staff time devoted to providing services in Nebraska*. In answer to the request for annual cost information to support I&R services, the respondents *reported they spend well over \$4 million annually*. Because expenditure data were received from only 30% of the 191 organizations, it is safe to assume the actual dollars spent on I&R services is considerably greater.

The current system is uncoordinated, with many I&Rs providing information only for specific target populations (e.g., the elderly, persons with disabilities, etc.) or for confining their information to geographical areas (e.g., city, county, or some regional service area). According to the survey, for each of Nebraska’s counties there are at least two I&Rs that provide information in each of ten service categories (basic subsistence, consumer services, criminal justice and legal services, education, environmental quality, health care, income security, individual and family life, mental health care and counseling, and organizational/community services). However, there are nine Nebraska counties that do not have access to a single I&R that provides comprehensive information about existing services, meaning that persons must make calls to a number of agencies before information could be obtained on a variety of topics. Because there are currently many organizations and agencies providing services and actively maintaining databases of information, there appears to be significant opportunity for coordination of existing efforts and reduction of possible duplication of effort.

Persons needing assistance may find Nebraska’s current uncoordinated system difficult for a variety of reasons:

- Persons with needs may be forced to call multiple I&R services in order to locate appropriate, available resources;
- Because most Nebraska I&Rs do not offer 24-hour assistance available 7 days a week, callers may be constrained to calling only during certain hours;
- Callers may be required to place tolled calls because most I&Rs currently do not offer toll-free access; and,
- Callers with special needs may find it particularly difficult to locate services as most current I&Rs do not provide accommodation for persons who are deaf or hard of hearing, or for callers who do not speak English.

The creation of a statewide 211 system in Nebraska should consider seven components:

1. the development of a statewide telephone system to enable three-digit calling;
2. the hiring, training, and on-going monitoring of I&R specialists;
3. the creation and maintenance of a complete, accurate database of information for use by the I&R specialists;
4. the establishment of alternative access for persons with disabilities and persons who do not speak English, or those who wish to use the Internet;
5. the creation of an administrative structure to support personnel and legal needs, and to develop the marketing and publicity, and to coordinate with other systems;
6. the development of a plan for recovering part of the costs by capitalizing on the value of the database;
7. and, the development and implementation of an evaluation system for maintaining standards and for making system improvements.

As part of this project, cost/benefit analyses were conducted. *Projected* quantifiable and non-quantifiable costs and benefits that are likely to accrue in the wake of establishing a 211 system in Nebraska were calculated and assessed. In considering costs and benefits, it is important to recognize that I&R services have costs and benefits that cannot be reduced to a financial value. Nonetheless, this report estimates those costs and benefits that are quantifiable. These projected, quantified data should assist in the discussion and planning for a possible 211 system.

Three different, organizational alternatives for a 211 system in Nebraska were investigated. The first is a **single, statewide call-answering center**. The second is **six regional call answering centers**. The third is **six regional calling centers with one serving additionally as a single after-hours calling center**. All three scenarios would provide I&R services to Nebraska 24 hours a day, 7 days a week.

A 211 system in Nebraska can be expected to provide important quantifiable and non-quantifiable benefits. Benefits will be seen by **individual citizens** as they more effectively find their way through the human service system; by **employers** who will experience a healthier and more available workforce; by **human service providers** who will be able to stretch limited human service dollars to provide service to more (and more appropriate) clients; and by **legislators and others who plan for and pay for human services** as they gain a better view of both the system and the needs of citizens, and avoid piecemeal solutions to the I&R need.

**This study concludes that Nebraska is currently spending a significant amount of money and effort in the I&R process, but that current systems vary greatly in accessibility, data availability, and staffing patterns.** No Nebraska I&R providers currently are accredited through the national I&R association.

Information gathered from I&R services around the country, three of which are 211 systems, indicate that **the 211 concept is feasible and that it provides information that is valuable to citizens and agencies alike.**

The cost and benefit analysis of the three models shows that **the quantifiable benefits outweigh the costs in all three models with sufficient call volume**, and that for the least costly model, using a single, statewide call center answering calls, the quantifiable benefits outweigh the quantifiable costs at all projected call volumes.

Thus, this feasibility project concludes an integrated, statewide I&R (211) system is not only feasible, it is desirable. We offer three recommendations:

1. **A call center serving one or more regions of the state should be piloted.**
2. **The pilot, if successful, should lead to a statewide system.**
3. **A plan for evaluation should be developed and implemented for continuous monitoring of and improvement to any I&R system Nebraska decides to adopt.**

## II. INTRODUCTION

### **Purpose**

The purpose of this study is to define, describe, and calculate the possible costs and benefits of implementing and maintaining a 211 information and referral system in Nebraska over a five-year period. The study's major components include undertaking a survey to describe the current state of information and referral (I&R) services in Nebraska, and conducting an analysis of costs and benefits to present the likely tangible, intangible, technical, and practical costs and benefits of implementing and maintaining a coordinated information and referral 211 system. The study, coordinated by the University of Nebraska Public Policy Center (see Appendix A for Project Team) is designed to assist policymakers in determining the feasibility of establishing a Nebraska 211 system.

### **Context of Study**

I&R services are points of contact designed to assist community members in clarifying their needs for human services and to direct them to those services that most appropriately meet these needs. Assistance is furnished to individuals and families who need referrals during difficult experiences or seek to enhance their well-being, or to other organizations seeking referrals for clients or constituencies. I&R services are most often available, at a minimum, through a telephone inquiry, although some I&Rs also provide information through websites, electronic databases, printed directories, and other means. I&R services are provided by wide array of organizations including governmental agencies, non-profit, and for-profit organizations.

In their unique role of matching needs to resources, I&R services may provide useful information on services persons request information about and on the possible gaps and duplications of human services based on I&R requests and information gathering. In many ways, effective I&R services act as community communication centers.

### **The Need**

211 and other I&R services provide critical information to callers about local community and statewide resources. Communities and states have found that individuals often do not know of the availability of services or how to access them. Accessing services may be challenging. Indeed, the human service system, with its many programs and services, may present a complex maze of requirements and programs to individuals seeking services.

Many human service organizations have names that are not immediately descriptive or encompassing of all the services they provide (e.g., Centerpointe is a Lincoln organization that provides drug and alcohol counseling and services; many rape/spouse abuse crisis centers also provide information about family violence services to community members who have not experienced rape or abuse). Phone books list agencies by name but provide minimal, if any, description of services. Directory assistance operators may provide some assistance but are not trained to assess caller needs or handle crisis calls. The Internet offers unprecedented information but may not have information about local resources.

Professionals in the human services field have commented on the difficulty of navigating the maze of resources and ever-changing programs that are available. Local agencies may not know of state programs, and state agencies may have inadequate information to refer to local programs.

Community members searching for information and resources may be facing critical situations in their lives and be unable to navigate the potential maze to locate resources. Atlanta's 211 system reports that during its 1997-98 fiscal year, of calls received by its 211 system, 52% involved immediate needs including shelter needs, rental/mortgage/utility assistance, and food. The

remaining calls included counseling needs, medical aid, prescription assistance, physical and sexual abuse, and potential suicide.

The need for emergency assistance may be increasing because of national initiatives such as the federal Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), which profoundly changed welfare in the United States. PRWORA has a primary goal of moving families from welfare to work. According to the U.S. Department of Health and Human Services, the number of families receiving federal assistance (through AFDC and then TANF) declined by 43% from January 1994 to September 1998, from 5.05 million to 2.90 million. Numerous studies, however, suggest that families moving from welfare continue to need assistance, even if they have transitioned into employment. The welfare project at National Conference of State Legislatures' analysis of state-sponsored studies found that most jobs held by former welfare recipients do not pay enough to raise a family out of poverty, and a recent study by the U.S. Conference of Mayors has found continued, rising demand for emergency food and shelter resources.

The need for community resources reaches all persons in a community, not only those traditionally thought of as "vulnerable" populations. For example, the typical caller to the 211 system in Atlanta is employed. In Connecticut the most common request is for information about child care. Also in Connecticut, 15% of calls are from public and private service providers seeking services for clients. Callers to I&R services include, for example:

- the teenager seeking a support group for substance abuse;
- the newly-widowed father who needs reliable child care;
- the adult child of an aged parent who requires skilled nursing assistance;
- the caller with gambling addiction;
- the parent of a child with special needs looking for activities for her child;
- the parent who is facing another snow day home with her child because both her school and day care facility are closed.

The three-digit 2-1-1 code, rather than a seven-digit or toll-free number, has emerged as an important innovation to providing I&R services. It eliminates confusion and margin for error for mis-dialed numbers. It is efficient, giving people one number to call when searching for assistance. It is easy to remember, particularly in a crisis situation. It offers consistency throughout a state or region which may be particularly helpful to an increasingly mobile population, or for assisting relatives or loved ones who live in a distant community. It offers an easy alternative for non-emergency 911 (*a potentially important factor given that some communities report that their 911 systems suffer from 50-90% of inappropriate calls, including calls that could be handled by a 211 system*). Current operational 211 systems also offer 24 hour accessibility to trained staff. Perhaps the most convincing information about the usability of 211 systems is that they are used by callers. Atlanta experienced a 33% increase in calls by the first nine months of moving to a three digit (from an 11-digit number), and Connecticut's call volume increased approximately 40% during the first year of moving to the three-digit calling code. The Columbus (Georgia) 211 system, built upon an existing I&R service has just been implemented and therefore no usage information is yet available.

In Nebraska, the Office of the Health and Human Services System Advocate estimates that most persons who eventually contact them for assistance have already called as many as seven to eight different people attempting to get information. The need for I&R services in this state may be illustrated by actual scenarios of Nebraskans seeking services:

- The parent seeking to voluntarily place his child in foster care.
- The individual with questions about how to have their well water tested.

- The parent needing information about who to contact about bruises on her pre-schooler's body.
- The parents unaware that a local community mental health center provides services to help with a very active preschooler, because they are aware that this could be a mental health issue.
- The woman seeking to understand the implications of filing a protection order, but not ready to contact her local law enforcement office or law/court agencies.
- The rural person seeking transportation for a doctor's appointment.
- The full-time homemaker, whose husband has left her and her children, who needs food and help with rent.
- The patient who is dissatisfied with medical care received.
- The tenant who has been threatened with eviction.
- The uninsured parent whose child is sick.
- The adult child of who is concerned about the care her parent is receiving in a nursing home and wants to learn how to become a better advocate.
- The parent seeking child and elder care in his town.
- The individual seeking a number to report an environmental or health hazard.
- The parent of a post-high teenager with developmental disabilities who is seeking employment alternatives for a child.
- The person wanting to donate bone marrow.

### Challenges

I&R providers maintain lists or databases of service providers for the purpose of linking people to these services. Some agencies may exist solely to provide I&R services; however, most organizations provide I&R as a component of other services. Information about human services may change very rapidly as programs and organizations adapt their programs to meet client needs and funding guidelines. Maintaining current, comprehensive information is time-consuming and costly. **Without coordination, many organizations have found that their efforts at maintaining and providing I&R services have resulted in duplicative efforts and overlapping services with other organizations helping the same target groups.** Many I&R services are unable (or do not have a clientele base large enough) to designate staff to maintain information, or to train and evaluate the staff to fully assess callers' needs. Individual I&R services may also be limited in capacity to provide 24-hour/7 day a week services, to provide toll-free access, and to provide accommodation for persons with special needs. For example, although persons who are deaf or hard of hearing may currently use TDD/TTY relay systems, which provides a person to translate between the caller and the agency, no many I&Rs are unable to provide *direct* access through TDD/TTY units and software. Many I&Rs also find it difficult to provide access to persons who do not speak English. The result of uncoordinated I&R services in a community is often a confusing array of I&R services, which are able to offer accessible, current, comprehensive information from trained staff.

The challenges of maintaining a quality I&R service with adequate resources, accessible to clients, have resulted in collaborative efforts. Throughout the United States a growing number of states and municipalities have developed cooperative I&R systems. These cooperative I&R systems enable governmental entities, non-profits, and for-profit organizations to collaborate in coordinating, managing, and disseminating I&R services within their communities.

### Range of Services

Some I&R services furnish information on a wide range of human services. Other I&R services provide assistance within specific geographic areas (within a specific municipality or region), for particular age groups (elderly, teen, or child-related services), only for certain types of service (employment, disabilities, housing), or for existing clients (patients of a health care facility, clients of a human service agency).

The potential scope of services is illustrated by one of the most widely used taxonomies in I&R services -- the INFO LINE of Los Angeles/Alliance of Information and Referral Systems Taxonomy of Human Services. The INFO LINE/AIRS Taxonomy contains more than 4,300 terms that are organized into ten major service categories and a separate target group section. I&Rs throughout the nation use this taxonomy to categorize services. The INFO LINE/AIRS Taxonomy includes the following categories of services:

Basic subsistence

Programs that furnish survival level resources including food, housing, material goods, transportation, and temporary financial assistance.

Consumer services

Programs that provide for the education and protection of individuals who purchase, use, maintain, and dispose of products and services. Included are programs that assist consumers with complaints, educate consumers, provide money management assistance, provide consumer regulation, issue registrations, licenses, and permits.

Criminal justice and legal services

Programs including the courts, the criminal correctional system, judicial services, law enforcement services, legal assistance, and information including advocacy and mediation.

Education

Programs including those with educational opportunities from early childhood through adulthood, including the school system, alternative education, educational programs, and educational support services.

Environmental quality

Programs including animal services, environmental improvement and protection, sanitation, community maintenance, urban development, public safety, and public health programs.

Health care

Programs including emergency medical services, screening, diagnostic and treatment services, assistive technology, health insurance, medical equipment, health education, family planning, rehabilitation for persons with disabling conditions, specialty medication, and substance abuse prevention.

Income security

Programs that provide for the economic needs of the community by helping those who are able and willing to prepare for and obtain gainful employment by securing public assistance and support for the eligible needy and by ensuring that retirees, older adults, disabled people, and other eligible individuals receive the social insurance benefits to which they are entitled.

Individual and family life

Programs including adoption, foster care, and daycare for adults and children, supportive services for families and individuals, leisure activities, respite care, and social development activities.

Mental health care and counseling

Programs including those that provide preventative, diagnostic, and treatment services in a variety of community and hospital-based settings to help people achieve, maintain, and enhance a state of emotional well-being, personal empowerment, and the skills to cope with everyday demands without excessive stress.

### Organizational/community services

Programs that provide any of a broad spectrum of services for the community as a whole including opportunities for individuals or groups to participate in community improvement or service projects, to have a voice in the political process, to have access to information services, or to benefit from the availability of a variety of services for residents, travelers, newcomers, community agencies, organizations, businesses, and industry.

### Target groups

Programs specifically for individuals who have specific disabilities, medical diagnoses, ethnic backgrounds, national origins, family relationships, income levels, religious affiliations, special problems or considerations, or other targeted characteristics including age and gender.

### **National Efforts**

Nationally there has been great interest in establishing 211 as the three-digit code for I&R services. A coalition of I&R services and two national associations is pursuing a national designation from the Federal Communications Commission to reserve 211 for all states. The partners include the Alliance of Information and Referral Systems (AIRS), the United Way of America, United Way 211-Atlanta, United Way of Connecticut, Florida Alliance of Information & Referral Services, and the Texas I&R Network. On May 28, 1998 the partners filed a petition with the Federal Communications Commission (FCC) requesting that the 211 dialing code be set aside nationally for telephone access to information and referral services. The petition describes the national need and benefit to establishing a nationwide three-digit number for I&R services. The petition also describes the experiences of two operational 211 systems (in Connecticut and Atlanta) and the progress or interest in establishing systems in a number of other states, *including Nebraska*. The FCC requested public comment on the petition during the fall of 1998, with the majority of comments expressing support for the 211 designation for I&R. The FCC is currently considering the petition and comments, and the agency will make a decision at some point in the future.

Currently, two urban areas (the greater Atlanta, Georgia area, and the greater Columbus, Georgia area) have successfully implemented a 211 system. At the state level one state (Connecticut) has successfully implemented a 211 system. AIRS has members in 44 states who have either implemented 211 systems (the greater Atlanta, Georgia area; the greater Columbus, Georgia area; and the state of Connecticut), are in the process of implementing 211 systems, or are pursuing 211 systems. The AIRS figure includes 211 systems (or plans for systems) that are either statewide or cover only part of a state (e.g., a region or municipality).

Because there are few available remaining three-digit numbers, other interests and organizations have also expressed interest in reserving the 2-1-1 code nationally through FCC petitions. For example, the U.S. Department of Transportation has indicated interest in reserving a three-digit number for road conditions. (*Note: 211 will be used throughout this report to indicate a three-digit dialing code even though a different combination of numbers may ultimately be used.*)

### **Nebraska Efforts**

In Nebraska, organizations have been providing I&R services for many years. As in other states, I&R services have ranged from small services (serving small populations or having a narrow focus) to larger services (serving larger populations or having a broader focus). And, as in other states, there has been great need for and interest in broad collaborations to provide comprehensive, up-to-date, easy-to-access I&R services to all Nebraskans.

There has been growing interest, additionally, in coordinating Nebraska I&R services to improve human service delivery and reduce costs. For example, *Nebraska's Long-Term Care Plan* (May 1997) included I&R services as one of a core set of services that "should be identified and given

priority for funding within the system.” The Long-Term Care Plan *Work Team Report* (May 1997) more specifically recommended expansion of the Nebraska Resource and Referral System (NRRS). The NRRS is a statewide database of resources that has been maintained since 1988 by NHHSS.

Following up on its planning work, the Long Term Care Task Force pursued its’ interest in I&R services and expansion of the NRRS by investigating the possibility of piloting a coordinated I&R system in a geographical area of Nebraska. In early 1998 the Long Term Care Task Force approached several Omaha area, other local and regional, and statewide I&R services to discuss interest in coordinating services and data. The meeting included representatives of NHHSS, non-profit organizations, and health care providers. In subsequent meetings, the group determined that restricting the focus to the Omaha area would unnecessarily prevent investigation of an ultimate statewide I&R service. Therefore the group decided to open the discussion to organizations throughout the state to determine interest statewide in a coordinated system.

In November 1998 the group convened “Information and Referral Network” conferences in Kearney and Omaha. The conferences featured Judy Windler, Executive Director of the Texas Information and Referral Network, and presentations from Nebraska-based I&R services. The conference revealed wide support for a statewide 211 I&R model.

Emerging from the conference, the Nebraska 211 Coalition was created to continue exploration of the model. Coalition members were recruited from individuals and organizations throughout the state with an interest in supporting and collaborating in the 211 model. The Nebraska 211 Coalition has spear-headed efforts in Nebraska to investigate the feasibility of a 211 system, and has joined the national 211 Initiative as a Collaborative Partner.

Parallel to the efforts of the Nebraska 211 Coalition, during the Ninety-Sixth Legislature (First Session) Senator Jim Jensen introduced Legislative Resolution 49 (LR 49), which was subsequently passed by the Unicameral. LR 49 called for “an interim study to determine the feasibility of a Statewide Information and Referral System,” to be reported to the Legislative Council by December 1, 1999. Among other activities initiated through LR 49, a series of public hearings have been conducted to ascertain statewide support of the 211 system.

In June, 1999, NHHSS and the United Way of the Midlands entered into a contract with the University of Nebraska Public Policy Center to survey existing I&R services and conduct a cost/benefit analysis of a statewide 211 model. The survey of existing I&R services would describe the current state of I&R services in Nebraska. The cost/benefit analysis would present the likely tangible, intangible, technical, and practical costs and benefits of implementing and maintaining a coordinated information and referral 211 system.

### **Principles and Components of 211 Model**

The following are key principles of a possible Nebraska 211 system, as defined by NHHSS officials and members of the Nebraska 211 Coalition. These principles provide the basic parameters for the study:

- 211 calls will be toll free calls for Nebraskans.
- 211 calls will be answered by trained I&R staff.
- 211 will be available to callers 24 hours a day, seven days a week.
- The 211 service will be supported by a reliable database(s) accessible throughout the state.
- The 211 system will promote efficiencies throughout the state for consumers, governmental organizations, and non-profit and for-profit organizations.

### Call Center(s)

This study compares the costs of three configurations of call centers: 1) a single statewide call center open 24 hours a day, 7 days a week; 2) six regional call centers each open 24 hours a day, 7 days a week; and 3) six regional call centers, five of which are open weekdays during high-volume hours and the sixth which is open 24 hours a day, 7 days a week. Regardless of whether comparing a single call center or multiple call centers, each configuration is staffed so that 211 calls are answered by trained Information and Referral Specialists (IRS) equipped with accurate human services resource databases.

### Data and Database

The data system must be complete, accurate, accessible and efficient. Data will be accessed through an Internet-accessible database(s). Files will adhere to a common structure and taxonomy. The database files will be regularly backed-up. At a minimum, each data file will be reviewed every six months to assure accuracy. The databases will be freely available for searching by any person or organization through the World Wide Web.

### Telephony

A statewide toll-free telephone network will enable callers to reach 211 through the three-digit dialing code.

### Trained I&R Specialists

I&R Specialists (IRS) should be considered more than operators that provide rote answers to simple questions. Rather, effective I&R services have found that staff must be uniquely selected and trained to provide several key functions:

- work with callers to understand the root of the difficulty or needs;
- assist the caller in prioritizing needs;
- assist the caller in identifying personal resources the caller might have;
- search available databases to find resources appropriate to the caller's needs;
- identify possible barriers to accessing resources;
- assist the caller in developing their plan of action;
- provide advocacy and follow-up as requested; and
- reinforce the capacity and empowerment of callers.

According to *Creating a 211 Service: a Comprehensive Guide to Developing a 211 Information and Referral System*, distributed by AIRS:

What distinguishes good I&R from less useful forms of help is the specialist's ability to get to the root of the caller's problem and to empower the caller with useful information and choices. An effective referral is made with two ingredients: full understanding of the caller's needs and preferences matched with comprehensive detailed information on how services actually work. For example, it is futile to refer a caller to a source of government assistance without telling her what forms of identification she will need to bring to establish eligibility, or to refer to a food pantry Thursday night which is only open on Sundays.

### Accessibility

The 211 system will be accessible to persons, at no cost, seeking I&R assistance through multiple entry points. Accessibility will include adequate staff to answer calls, without undue hold times and busy signals. Accessibility may also include accommodation for special needs populations such as TDD/TTY (telecommunication devices for the deaf and other similar systems), bi/multi-lingual staff (and use of services such as the AT&T Language Line), and availability of information through e-mail.

### Accreditation

The 211 system will operate in such a way that, at a minimum, it would be eligible for accreditation through AIRS. Staff working on the 211 system, in a similar way, would be persons that would be able to achieve certification for individual practitioners through AIRS. Nebraska, however, must carefully determine for itself its minimum qualifications for staff and operations.

### Sustainability

The 211 system will be created and maintained in such a way to assure long-term sustainability. Sustainability will include sound financial support for the system based on informed projections of usage; standards for selection and monitoring of the call center(s); creation of telephone and data systems that use technology appropriately and with an understanding of likely future innovations; development of administrative or supervisory oversight; creation of a system for staff selection, training, and monitoring; coordination of the call center(s); standards and protocols for data handling and maintenance including verification, updates, backups, etc.; publicity and marketing efforts; on-going evaluation of system effectiveness and user satisfaction; and data collection about service needs and gaps.

### Efficiencies

Efficiencies for consumers, governmental organizations, and non-profit and for-profit organizations will be promoted. Efficiencies might include such components as: access to information for persons wishing to find out about service availability for themselves, friends, loved ones, or clients; prevention of inappropriate calls to the 911 system; reducing duplicative attempts to maintain and publicize overlapping I&R services; and the identification of service gaps within Nebraska's human service system. In addition, efficiencies may be gained through collaborative relationships with programs that currently offer (or are mandated to offer) toll-free I&R services about specific programs or for specific populations for Nebraskans.

## **Structure of Study**

### Study Team

The University of Nebraska Public Policy Center provided overall coordination of the Survey of Existing I&R Services and the 211 Cost/Benefit Analysis project. The lead faculty member from the Public Policy Center was Nancy Shank, MBA, Research Assistant Professor.

Survey of Existing I&R Services. The Bureau of Sociological Research (BOSR) administered the Survey of Existing I&R Services. BOSR, the research division of the University of Nebraska-Lincoln Department of Sociology, has conducted numerous national, statewide, regional, and local surveys through telephone and mail since 1964. David Johnson, PhD, Director of the Bureau, was responsible for the overall administration of the survey. Cheryl Wiese, Associate Director, coordinated the survey administration, tabulation, and results.

211 Cost/Benefit Analyses. The 211 Cost/Benefit Analysis project team was lead by two faculty members from the University of Nebraska-Lincoln: David Rosenbaum, PhD, Professor of Economics, UNL College of Business Administration, and Gregg Wright, MD, MEd, Research Associate Professor, UNL Center on Children, Families and the Law.

The project team was joined by other faculty consultants and research assistants who assisted in the data collection and analysis.

### Study Components

The project team utilized a number of methods to gain an informed understanding of the considerations of coordinated I&R systems generally, and 211 systems in particular. The following components comprised the key aspects of the study.

Survey of Existing I&R Services in Nebraska. Throughout Nebraska a wide variety of organizations provide types of I&R services. A comprehensive survey of the scope and operation of existing services is crucial to understanding the benefits of implementing a statewide 211 system. Because complete information was unavailable about I&R services in Nebraska, this project undertook a comprehensive survey of organizations providing I&R services in Nebraska. The survey examined existing I&R services including: general organizational information, operating procedures, usage, staffing and technological resources, collection and maintenance of resource information, and funding.

Interviews and Consultations. Other states and regions have successfully implemented 211 systems or other coordinated I&R systems. Selected persons, both within Nebraska and throughout the country, were contacted who have specific expertise or who could provide in-depth feedback and advice about 211 systems or components of systems.

Examination of Information About Other States/Regions Implementation of 211 or Coordinated I&R Systems. In order to understand how Nebraska might implement and maintain a 211 system, information from other states was examined. Information included reports, studies, marketing information, and usage data.

Other Research. Additional research was undertaken by accessing information from governmental agencies, national organizations, I&R e-mail discussion groups (listservs), and research literature. This information provided additional contextual information about national and state efforts and experiences.

Development of Nebraska-Specific Projections and Models. Based on the results of the foregoing investigation, specific models were created to project and model scenarios of Nebraska 211 systems.

### **Costs and Benefits**

The cost and benefit analyses were conducted in order to determine *projected* quantifiable and non-quantifiable costs and benefits of establishing a 211 system in Nebraska. These are *projected* costs and benefits for an array of possible scenarios. Actual costs and benefits might vary based on administrative structure, standards for service, budgetary constraints, actual usage and volume, and degree of coordination among existing I&Rs.

Quantifiable and non-quantifiable costs and benefits were examined. Quantifiable costs include such items as telephone and data systems and connections, staffing, hardware and software, facilities, program administration, and evaluation. Benefits include such dimensions as saved person hours searching for information, use of preventative and lower cost resources, and reduction of duplication of efforts. Non-quantifiable costs include the increased demand for services or the frustration citizens may feel when there are simply no information services available to tell them about options.

### **Limitations of Study**

This study attempted to identify and survey as many existing I&Rs as possible throughout Nebraska. However, it must be understood that, despite repeated contacts, not all human service organizations that originally identified themselves as providing I&R services actually responded to the full survey. In addition, not all organizations responding to the full survey provided answers to all questions. The surveys relied on organizations to self-report. Researchers confirmed some of the self-reported figures with selected organizations, but did not confirm all figures.

This study does not presume to present *the* costs and *the* benefits of *the only* possible, or even

best possible, 211 system for Nebraska. Rather, the study presents costs and benefits based on a number of possible scenarios that may be viable options for Nebraska. This study also does not presume to act as an implementation plan or business plan. Rather, it intends to examine a range of structural possibilities, and it identifies likely impacts of these scenarios. Should Nebraska choose to implement a 211 system, there should be consideration should be given to the development of business and implementation plans. In addition, further consultation will be very useful, particularly for the specific configuration of phone systems, hardware, and software.

### III. I&R SYSTEMS THROUGHOUT THE UNITED STATES

The success of 911 for accessing emergency services and of 411 for accessing telephone directory assistance have shown the benefit of simple, coordinated, three-digit dialing codes for citizens wanting fast, easy access to information and services.

Across the United States, countless individuals and families search every day for information about services such as emergency financial assistance, food, shelter, employment assistance, and the myriad of other human services for themselves or for family members or clients. With the changes in the federal welfare system, many persons believe that access to services through I&Rs provide a key component of welfare to work transition. The benefits of 211 systems, and the complexity and difficulty of accessing information, spurred a number of I&R services to investigate the feasibility of reserving a 211 number for information and referral services.

#### **National Association**

The Alliance of Information and Referral Systems (AIRS) is the national, non-profit association for I&R organizations throughout North America. AIRS currently includes approximately 1,000 private and public I&R programs in this professional association. Incorporated in 1973 to improve access to services through I&R, AIRS promotes the professionalism of I&R and supports new developments in the field through advocacy, publications, conferences, education, training and certification, and development of standards.

#### **State Initiatives**

Examining the experiences of states and municipalities that have adopted 211 systems, or other coordinated I&R services, is useful as Nebraska considers the possibility of creating a 211 system. Only one state (Connecticut) and two greater metropolitan areas (the greater Atlanta, Georgia area, and the greater Columbus, Georgia area) have fully-implemented 211 systems offering three-digit dialing, toll-free, comprehensive community services.

In 1997, the Georgia Public Service Commission approved the first three-digit telephone number dedicated to I&R services within a community. The effort was headed by the United Way of Metropolitan Atlanta. That number in Atlanta became 211. In the first nine months of operation, the Atlanta 211 system experienced a 33% increase in calls to their I&R service. Because they had conducted little marketing, Atlanta attributed the increase in calls to the easier to remember, quicker to dial 211 code. In February 1999, Connecticut became the second 211 system in the nation, when it converted its statewide I&R service from a toll-free 10-digit number to 211. Connecticut experienced a 40% increase in call volume. Columbus' 211 system went operational in January 2000 and is being operated by CONTACT Helpline of Columbus, that has administered the CONTACT call center for 21 years.

Each state, most often through Public Service or Public Utility Commissions, may separately reserve open three-digit numbers; however, many numbers are reserved or are proposed for other uses. For example, most three-digit numbers are already in use as area codes and other dialing codes and are unavailable as stand-alone numbers. 911, the most widely-known stand-alone three-digit number, is reserved for emergency services; 411 is reserved for local directory assistance; 311 is used for non-emergency police calls in some communities; and 711 is reserved for access and relay services for the hearing and speech impaired. The remaining three digit codes are clearly a finite resource. In addition to the petition for establishment of 211 for I&R services, the Federal Communications Commission, for example, is also considering a petition from the United States Department of Transportation for reservation of a three-digit number for road conditions.

### **Federal Study About Need for Coordinated I&R**

In 1978 the Comptroller General of the United States prepared a report for Congress, "Information and Referral For People Needing Human Services—A Complex System That Should Be Improved." This report assesses the potential for improving service and reducing duplication. Because there have been no systemwide success in coordinating I&R services at the federal level, it is easy to see that the potential and benefits of coordinating systems exist today in the same way it did at the time of the study. At that time it was estimated that the federal government spent over \$100 billion annually on I&R services. However, it concluded that this is only a portion of the total cost. While a sample of agencies surveyed received over half of their funding from the federal government, there were significant state and local contributions as well. One study of one large community alone estimated that the I&R costs were as much as \$100 million annually.

The report's conclusions are still valid today. The report concluded:

- the network of human services which have been developed to help persons reduce their dependency and attain and maintain self sufficiency is "extremely complex, . . . highly specialized, and fragmented."
- "many agencies have attempted to develop I&R systems to inform people of the available human services and to refer them to the appropriate agency";
- "lack of coordination and suitable quality controls have resulted in an ineffective and inefficient I&R system"; and
- agencies are devoting resources to I&R which could be directed to filling gaps in other needed services.

The 1978 report identified several barriers to consolidated I&R services. **One of the most frequently mentioned obstacles to consolidating I&R services is the reluctance of agencies to give up their own I&R activities.** This trend was noted in each city studied. In 1978, the conclusion from this was that more federal leadership was needed. Today, we might look more to state leadership to bring these agencies together in a coordinated I&R effort.

### **Data About Coordinated I&R Systems**

We found no central clearinghouse, or standardized reporting format to collect and analyze information about the types of calls received by I&Rs throughout the country. Surprisingly information is sketchy, at best, about I&R services, their call volumes and types, and their operations. We collected data and synthesized other information we found. In summarizing other states' and localities' experiences in coordinating I&R systems, we examined reports, surveys, websites, and interviewed knowledgeable I&R professionals around the nation. We focused mainly on I&R systems that are comprehensive in scope (i.e., that provide information and referral to all populations) rather than those that serve only a specific population, such as elderly persons. However, we did gather information about the COMPASS system in Iowa that provides information specifically for persons with disabilities due to the state's proximity and the COMPASS system's similarity to the existing NRRS maintained by NHHSS. Appendix E provides a summary of the coordinated I&R systems we examined.

Across the United States, the operations of I&R services vary tremendously in hours of operation, staff training, and other issues. That is, some services are available 24 hours a day/7 days a week, whereas others have only limited hours. Some have trained, certified staff, others have staff with little or no training. Many I&R services provide multi-lingual assistance and make accommodation for other special needs populations. Some provide information accessible through the World Wide Web. Others make use of automated systems that give callers the opportunity to select resources on touch-tone telephones through a series of automated menus.

211 Requested Services and Contacts

Two (i.e., Atlanta and Connecticut) of the operational 211 systems have had their systems in place for a long enough period of time to collect and publish data regarding their calls. Connecticut reports the most frequently requested services are for child care, financial assistance, food, protective services, legal assistance, utilities/heat, social support, housing, and mental health. In 1997 in Atlanta, 49% of urgent calls to 211 were requests for help to find shelter, get food, or obtain assistance with utilities and rent. Atlanta reports that their typical caller is female adult, employed, and the mother of one or more children. In Connecticut, 15% of calls are from other human service agencies requesting information and referrals for clients. Atlanta also tracks usage of their website (www.unitedwayatl.org); it received 151,323 hits during the 1997-8 fiscal year.

Call Volumes

As might be expected, there are wide variations in size and operating structures of I&R systems. I&R systems may be operated for a single county or metropolitan area or cover an entire state. One survey of I&R services (conducted by AIRS within their membership, but which does not include all I&R members of AIRS) found call volumes ranging from as few as 6,000 calls per year to as many as 1.2 million. Of these I&Rs, the call volume as a percentage of the population ranged from 1.5% of the population served to over 38% of the population.

Table 3.1

**Survey of Information and Referral Programs  
Alliance of Information Systems - 1997\***

	State	City/Region	Population Served	Call Volume	Call Volume As % of Population
1	Arizona	10 counties (Phoenix)	3,600,000	167,871	4.66%
2	California	Los Angeles	12,000,000	204,000	1.70%
3	California	San Diego	2,800,000	78,000	2.79%
4	Connecticut	Statewide	3,300,000	185,000	5.61%
5	Florida	Statewide	15,000,000	1,200,000	8.00%
6	Florida	Dade County	2,200,000	120,000	5.45%
7	Florida	Tallahassee	350,000	60,000	17.14%
8	Georgia	Atlanta	3,500,000	135,000	3.86%
9	Illinois	Chicago	8,000,000	12,000	0.15%
10	Indiana	Columbus	35,000	6,000	17.14%
11	Michigan	Detroit	4,000,000	120,000	3.00%
12	Minnesota	Statewide	4,600,000	400,000	8.70%
13	Minnesota	Twin Cities	2,000,000	194,000	9.70%
14	Minnesota	St. Louis County	198,200	25,899	13.07%
15	Minnesota	Grand Rapids	42,000	16,000	38.10%
16	New York	Rochester	1,200,000	125,000	10.42%
17	North Carolina	Forsyth County	287,000	29,555	10.30%
18	Ohio	Summit Co./Akron	500,000	83,000	16.60%
19	Pennsylvania	York County	365,000	31,524	8.64%
20	Tennessee	Memphis	1,500,000	297,000	19.80%
21	Texas	Statewide	17,000,000	950,000	5.59%
22	Texas	Houston	4,000,000	80,000	2.00%

23	Virginia	Richmond	1,200,000	18,000	1.50%
24	Washington	King Co./Seattle	1,700,000	203,000	11.94%

\*Data presented here is a subset of information from a larger survey and includes only programs for which there was complete information and programs that provide comprehensive I&R services.

I&R Costs Per Call

The funds used to administer I&Rs, especially in comparison to the number of calls received by an I&R, also appears to vary dramatically. Some of the variation is likely due to the aegis under which an I&R operates, and the variability in reporting costs and contacts. For example, some I&Rs exist solely to provide information and referral services; most, however, appear to be a part of a larger organization. Without an in-depth financial analysis it is difficult to ensure that I&Rs are reporting like expenditures. Finally, I&Rs may count call volumes in various ways, such as the number of calls (including those that are abandoned), and in what may also be included as a “contact,” for example, letters, emails, and even webhits, in addition to phone calls.

Data was gathered from those I&Rs willing to share call volume and annual budget figures. Additionally information was gathered through the IR-NETWORKER listserv administered by the University of Texas-Austin and owned by the Texas Assistive Technology Partnership (<http://www.edb.utexas.edu/coe/depts/sped/tatp/tatp.html>).

To the extent possible, the figures we represent below reflect an effort to normalize the data. The estimates consider total costs to administer an I&R, including database maintenance, publicity, hardware, and other costs.

Table 3.2

**Costs Per Call of I&Rs throughout the U.S.**

	# calls	Annual Budget	Cost Per Call
COMPASS (Iowa)	3,000	\$ 150,000	\$ 50.00
Minnesota Board on Aging	29,000	\$ 747,977	\$ 25.79
Detroit United Way	15,000	\$ 350,000	\$ 23.33
Connecticut 211	149,000	\$ 3,000,000	\$ 20.13
Indianapolis	28,000	\$ 350,000	\$ 12.50
Fort Worth United Way	36,592	\$ 350,000	\$ 9.56
Atlanta 211	180,000	\$ 1,295,751	\$ 7.20
Jacksonville United Way (5 county area)	73,000	\$ 470,000	\$ 6.44
Dayton United Way	90,414	\$ 540,000	\$ 5.97
San Diego County United Way	78,000	\$ 432,000	\$ 5.54
Gainesville United Way	28,000	\$ 99,540	\$ 3.56

**The Relationship Between 211 Systems and 911 Systems**

Officials involved in both 911 and 211 systems in Atlanta and Connecticut, were contacted to determine any potential conflicts between the 211 and 911 call systems. In both areas, the systems are working together without conflict, but individuals involved in both 911 and 211 agreed that the relationship of the two systems required active planning and cooperation. In both areas, the initial stages of the 211 process involved extensive informational meetings with police and 911 officials.

#### Potential for Confusion by the Public

A concern is often expressed that the existence of a 211 system might confuse the public about when and why to use the 911 system. In general, individuals involved with 911 systems are leery of all other 911 numbers because of this potential. However, according to 911 and 211 officials in both areas, this has not been a problem. One public safety official attributed this to attention to advertising, training, and system cooperation. This official noted it is important that any advertising for the 211 system avoid language that might imply that 211 would be helpful in emergency situations; in addition, 911 officials should be contacted to be sure they are comfortable with how the 211 system is promoted.

#### Misdirected and Urgent Calls

911 systems deal with many calls that are not an emergency and that could be more appropriately handled by a 211 system. In both Atlanta and Connecticut, 911 officials expressed the potential for the 211 system to reduce the volume of these calls; however, neither Atlanta nor Connecticut has been operating long enough to notice this effect. Cooperation between the two systems is needed to ensure that misdirected calls are handled most appropriately. Training is important so that 211 information and referral specialists and 911 dispatchers both understand the existence and mission of the other system, and have a protocol to deal with calls that would be more appropriate to the other system. In Connecticut, when an individual calls 211 and describes a need that requires a 911 response, a three way call with the appropriate 911 dispatch center may be established immediately. While calls forwarded in this manner lose the automatic location information most 911 centers are equipped to display, 911 officials felt this to be a minor consideration. Forwarded calls from other sources are not uncommon, and location information is verified verbally whenever possible. For calls to be forwarded in this manner, the 211 service must know the 7 digit emergency number for each 911 center in the state because calls may not be transferred to a three digit number. Each 911 center in Connecticut maintains a 7 digit number that is routed to the dispatch center just like a 911 call. Cooperation is important to be sure that the 211 system has an up-to-date list of these numbers.

Emergency calls to 211 are rare in both Atlanta and Connecticut. The most urgent call to a 211 center is likely to be a suicide call. 211 systems should have a protocol for dealing with these calls. The Connecticut 211 system is also a fully accredited suicide hotline, and these calls are handled directly. Some 911 centers in Connecticut do not deal with suicide calls but transfer them to the 211 system. In 211 systems that do not provide the additional service of a suicide hotline, it is important that the information and referral specialists be trained to quickly assess and transfer these calls to the appropriate suicide hotline.

#### IV. A SURVEY OF INFORMATION AND REFERRAL IN NEBRASKA

##### **Introduction**

A mail survey was conducted of governmental agencies, social service organizations, and other agencies in Nebraska to determine how I&R services are currently provided. A postcard survey was sent to 827 organizations, asking each to indicate whether they provide I&R services. One-third of these agencies indicated they provide I&R services. Full surveys were sent to these 276 agencies. The survey included questions about the costs and resources required for providing such services, hours of operation, call volume, characteristics of the calls, and staffing devoted to providing I&R services.

After multiple mail and phone contacts, survey responses were received from 193 I&R service providers (70%). Two of the responding organizations reported that they receive fewer than one I&R service call per month and therefore were removed from the sample since they did not meet the criteria of providing I&R services “on a regular basis.” Although opportunity was given to all known social service agencies to participate, some I&R services were likely missed. We know of 83 agencies providing I&R (as indicated by the postcard response) who were unable or chose not to complete the full survey. In addition, over half of the 827 agencies initially contacted chose not to return the post card.

Although it may be reasonable to assume that agencies that do not provide I&R services would not return the post card survey (although an option of “Do not provide I&R Services” was provided), we cannot be certain of the exact proportion of those who failed to return the post card that do, indeed, provide I&R services. The summary that follows characterizes 191 responding agencies only. No attempt has been made to estimate the characteristics of the non-responders. *For that reason, the numbers in this report likely represent an underestimate of the actual Information and Referral experience in Nebraska.* A detailed methodology and a copy of the survey and results can be found in Appendix H.

The survey did not attempt to ascertain either the quality (i.e., accuracy) of information provided by each responding organization, nor did it attempt to determine the extent to which requested referrals were available (i.e., gaps in information) from individual I&Rs. The survey relied primarily on organizational self-report of their I&R services.

##### **Costs**

Some agencies expressed difficulty in calculating and reporting the cost of providing I&R services because most agencies (93%) reported the employees who field these calls have responsibilities in addition to answering I&R requests. Only 30% of the agencies responding to this survey reported actual costs for providing I&R services, *so there is an unknown amount of money used to provide I&R services in the organizations (70%) that did not respond to this question.* Among those that did provide cost information, some may have included costs for responsibilities beyond responding to I&R requests.

Almost seven of every ten of the I&R service providers who responded to this survey contribute general operating funds to fund the I&R services. Grants are the second most likely source for I&R funds (33%) and private contributions are used in 23%. (See Appendix H, Question 13.)

Almost half (45%) of the 56 agencies for which information was reported (again, only 30% of organizations responding to the survey provided this information) spend \$25,000 or less annually for I&R services, another 37% provided between \$25,000 and \$100,000, and the remaining 18% provide more than \$100,000 annually. With caution due to the factors outlined at the beginning of this cost section, the combined cost from these 57 reporting agencies totaled well over \$4 million.

**Approximately what is the annual cost to fund I&R services you provide?**

**Range** = \$0-765,000 **Mean** = \$77,060 **Median** = \$30,857 **Mode** = \$25,000  
**Sum** = \$4,315,342

<b>Agencies that provided any answer</b>	<b>n=56</b>	<b>29.3%</b>
<b>Annual Cost</b>	<b>n=56</b>	<b>Percent of those responding</b>
\$0	2	3.6%
\$1,000 or less	7	12.5%
More than \$1,000 to \$10,000	6	10.7%
More than \$10,000 to \$25,000	10	17.8%
More than \$25,000 to \$40,000	8	14.3%
More than \$40,000 to \$50,000	6	10.7%
More than \$50,000 to \$100,000	7	12.5%
More than \$100,000 to \$300,000	8	14.3%
\$435,200	1	1.6%
\$765,000	1	1.8%

**Database Management**

Agencies use a variety of sources to direct callers to the appropriate resource. Most frequently used are the local phone book (85%) and a personal address file or notes (79%). Approximately half (48%) of the agencies use an organization-wide database, and almost one third of the agencies (31%) rely on the NRRS for referral information (Question 40). Only 21% (39 organizations) use a computerized database to maintain and search for resources. Only 4% (7 organizations) use the AIRS taxonomy.

Most of the agencies (74%) actively seek information to provide I&R services (Question 41). Approximately half of the organizations (49%) spend between one and ten hours per week collecting and maintaining their resource information. Forty-three percent spend less than one hour per week, and about 8% spend more than 10 hours per week at this task (Question 42). Most of the organizations (66%) had fewer than 100 resources in their referral database. The organization with the largest number of database resources housed 3,000 resources in their database.

**Accessibility**

Sixty-nine agencies (37%) indicated that they provide a toll free number for their I&R calls (Question 17). 51 agencies (28%) provide TDD/TTY access (Question 20).

**Hours of Operation**

The majority of I&R providers that responded to the survey have phones that are answered Monday through Friday during regular business hours (between 7:30 am and 6:00 pm). Almost one quarter (23%) provide services every day of the week, and one of six (17%) provide services 24 hours a day. Three of those who answered they provide 24 hour a day service use an answering machine for part of the coverage.

<b>Days of the week the line operates. (Question 21)</b>	<b>n = 187</b>	<b>%</b>
Monday through Friday	141	75%
Monday through Saturday	3	2%
Monday through Sunday	43	23%

**What are the hours of operation for this number? (Question 22)**

	<b>n = 185</b>	<b>%</b>
24 hours a day (3 use an answering machine for part of the 24 hour coverage)	31	17%
daytime hours (7:30am-6:00pm)	149	81%
daytime and evening hours (7:30am-11:00pm)	4	2%
varies according to site	1	<1%

**Call volume**

Agencies reported receiving from 12 to 341,744 I&R calls annually for a total of 902,519 statewide. (The highest number represented one agency reporting for multiple locations on one form.) This total reflects responses from 145 of the 191 agencies that responded, and the remaining 46 either did not keep track of the number of calls or chose not to respond to the question. Of these I&R calls, about 16% are calls from other social service agencies. Half of the agencies that responded received 500 or fewer calls each year.

**Approximately how many I&R calls do you receive annually?**

**(n = 145)**  
(Question 27)

**Range= 3-341,744 Mean = 6,224 Median = 500 Mode = 500 Sum = 902,519**

<b>Number of calls:</b>	<b>n=145</b>	<b>Valid Percent</b>
0-100	26	17.9
101-200	20	13.7
201-500	27	18.6
501-1500	34	23.4
1,501-5,000	17	11.7
5,001-30,000	16	11.0
30,001-55,000	4	2.8
341,744	1	.7

**Approximately how many of your total annual calls include calls from other agencies? (n = 131) (Question 28)**

**Range = 0-42,000 Mean = 1086 Median = 135 Mode = 50 Sum = 136,056**

<b>Number of calls:</b>	<b>n=131</b>	<b>Valid Percent</b>
0-100	63	48.1
101-200	14	10.7
201-500	25	19.1
501-1500	12	9.2
1,501-5,000	9	6.9
5,001-30,000	7	5.3
30,001-55,000	1	.8

Respondents were asked to provide information about the volume of calls during various times of day during a typical day. This information should be used to illustrate general call volume as it spans a 24 hour period - there is not much variance during normal business hours (8 am to 5 pm),

and late afternoon receives the highest volume during evening hours.

**Estimate the number of calls received throughout the day for a typical day. (n = 90)**  
(Question 30)

**Total Calls Reported**

1,830	Morning (8 am - 11 am)
1,574	Midday (11 am - 2 pm)
1,739	Early Afternoon (2 pm - 5 pm)
136	Late Afternoon (5 pm - 8 pm)
100	Evening (8 pm - 11 pm)
53	Late night (11 pm - 8 am)

Half of the agencies reported that the number of calls received varied somewhat by month. The volume of calls seems to decline somewhat in the summer months and increase slightly in the fall and winter (Question 29).

**Staffing**

Half (52%) of the agencies reported the number of paid hours devoted to providing I&R services as the equivalent of one half of full time employment or less (0 to 1,040 hours annually). An additional 15% reported the equivalent of one full-time employee annually providing I&R services (Question 32). Half of the agencies required a GED or high school diploma of their staff answering I&R calls, and almost one-fourth (23%) require a B.A. degree (Question 36). A large majority (93%) of the staff responsible for answering I&R calls had responsibilities in addition to I&R requests (Question 34). The total number of paid hours devoted to I&R services reported by 124 agencies totaled 335,960 hours (Question 32), or over 161 paid, full-time-equivalent (FTE) positions.

Most agencies (71%) reported no volunteer staffing hours. Of those agencies that did, most (27 of 43) had volunteer hours equivalent to 10 or fewer hours of volunteer services per week (Question 33).

**Approximately how many annual, PAID staffing hours are devoted to providing I&R services (40 hours a week for one year equals 2,080 total hours)?** (Question 32)

**Number of hours annually**

**Range = 0-50,000 Mean = 2,709 Median = 1,040 Mode = 2,080 Sum = 335,960**

Hours/week	Total Hours Annually	N=124	Percent
1 hour or less/week	0-52	35	28%
2 to 10 hours/week	53-520	19	15%
11 to 20 hours/week	521-1,040	11	9%
21 to 35 hours/week	1,041 - 1,820	13	10%
40 hours/week	2,080	19	15%
41 to 80 hours/week (1-2 FTE)	2,081 - 4,160	12	10%
81 to 200 hours/week			

(2-5 FTE)	4,161 - 10,400	10	8%
(11 FTE)	22,880	2	2%
(12 FTE)	25,000 / 25,297	2	2%
(24 FTE)	50,000	1	1%

**Geographic Coverage**

Respondents were asked to indicate the area of the state for which they provide I&R services (Question 12). Thirty-three agencies indicated that they provided I&R service on a statewide while the other areas of the state were served by from 16 to 52 different agencies.

Region	Region	Percent
Western Region	18	9%
Southwest Region	24	13%
Central Region	33	17%
Northern Region	50	27%
Eastern Region	21	11%
Southeast Region	52	27%
ENTIRE STATE	ENTIRE	17%
Other Bordering States	3	2%

**Comprehensiveness/Redundancy of Information**

The survey asked I&Rs how much information (very complete information, partial information, or no information) they keep on non-profit and public programs relating to: basic subsistence, consumer services, criminal justice and legal services, education, environmental quality, health care, income security, individual and family life, mental health care and counseling, organizational/community services, and target groups.

The survey used self-report and did not attempt to ascertain the quality or accuracy of any agency’s databases. The question collected information about comprehensiveness of resource data that I&Rs gather, and not to identify human service need in any particular community. That is, we have not attempted to determine whether the I&R resources are adequate to meet specific community needs in any category. Rather, the data was collected to begin to identify commonalities and comprehensiveness of information available, by county, to Nebraskans.

According to the responses, every county has at least two I&R service providers (or in many cases numerous I&Rs that are providing information) that maintain information for each of the above topic areas (e.g., at least two I&Rs provide information about mental health care and counseling, along with other topics).

However, there are nine counties that do not have access to “comprehensive information” about existing services. Comprehensive information is defined as a single I&R that provides services on nine of the ten (excluding the “target group” category) above topics. In these nine counties, persons must make calls to a number of agencies before information or services could ostensibly be obtained on a variety of topics.

See Appendix H for maps showing the dispersion of providers, by county for each category, and for I&Rs providing comprehensive I&R information.

**Accreditation**

The survey asked I&Rs to indicate whether they had received accreditation from AIRS. Five organizations responded positively. Upon contacting AIRS for verification, however, it was found that no Nebraska organizations are currently accredited by AIRS. There are currently five certified IRS through AIRS' personnel certification program. This indicates there was likely misunderstanding of the question.

## V. COMPONENTS OF A STATEWIDE 211 SYSTEM

### Overview

Given the experience of other I&R systems across the nation and in light of the Nebraska situation, there are seven components that will be required to *provide efficient, user-friendly 211 telephone access to reliable human service information* on a statewide basis. These include:

- A integrated, state-wide **telephone system** to direct three-digit 211 calls to the appropriate place given the location of the caller and the time of the call;
- Trained **information and referral specialists** with the skills necessary to clarify the caller's needs and to provide helpful options;
- A complete and accurate **database** of human service agencies throughout Nebraska that can be used by information and referral specialists;
- **Alternate access** to this database for Nebraskans who require TDD/TTY equipment, who use a language other than English, or who wish to access the database and/or the information and referral specialists on the Internet;
- An **administrative structure** to support the personnel and legal needs of the system, and to develop the marketing and publicity necessary to ensure that citizens in all parts of Nebraska know about the system and understand how to use it;
- A method of recovering some of the system costs by **capitalizing on the value of the database**; and,
- An **evaluation system** to document how the system is used and to measure, to the extent possible, the impact on users, agencies, and on the human service system as a whole.

### **An Integrated 211 Telephone System**

#### General Considerations

The basic concept of a statewide 211 system is straightforward. A caller simply dials 211. The call is sent to a call-answering center. At the center, a trained Information and Referral Specialist receives the call and provides the relevant information.

In theory this type of system can be set up using current telephone technologies. A caller needs access to a telephone. Computers within the telephone system can be programmed to send calls from anywhere in the state to the correct call-answering center. The telephone computers can even be programmed to send calls to different answering centers based on the call's place of origin and time of day.

#### Factors

There are five major factors needed to set up a statewide 211 system. The first is a telephone that is accessible to someone wanting to call the 211 system. The Nebraska Public Service Commission estimates that 96% of all households in Nebraska have telephones. In addition, the Lifeline and Linkup programs subsidize both the installation and ongoing use of telephones for qualifying low-income households. The Public Service Commission also supports 24-hour access to pay phones within all Nebraska communities. Hence, practically every Nebraskan should have access to a telephone. Everyone may not have access in their home, but it should be in the community.

The second factor is the existing network of telephone wires, switches, and other equipment. The physical requirements of the telephone network should be in place. Some reprogramming of telephone company computers and hooking up of equipment will be necessary. The methods for doing these things are in place and in theory the tasks can be readily accomplished. There will, however, have to be cooperation between the myriad of local telephone companies involved and the system coordinator to actually accomplish these tasks.

The third factor is assignment of 800 number(s). Whether there is one call-answering center, or multiple call-answering centers (see below), there must be a unique 800 number(s). The 800 number locates exactly where calls should be sent. When a call is made to 211, the call is eventually converted to an 800 number so that it can be billed and sent to the appropriate location.

The fourth factor is a long distance carrier. Calls to 800 numbers are long distance calls. Once a call is converted from 211 to the relevant center's 800 number it is handed off from the local telephone company to a long distance carrier. Hence, the coordinator of the single number system will have to enter into an agreement with a long distance carrier to provide 800 number service. Currently there are several carriers that provide long distance intrastate service (service for long distance calls made within the state). An agreement for service will have to be negotiated between the 211 system and a long distance service provider.

The fifth factor is the creation of one or more statewide 211 system call-answering centers. A call-answering center is basically a facility with a number of phone lines and phones, each answered by a trained Information and Referral Specialist. Establishing a center requires renting floor space, acquiring furniture and equipment, setting up the telephone and computer systems, and training staff.

The system is conceptualized as a two-tiered call-answering system. When a call comes into the center, it will be answered by a level-1 I&R specialist. If the call is too complicated or the specialist does not know the answer, the caller will be transferred to a level-2 I&R specialist.

The system can also be designed so that computer software tracks call volume, production by each I&R specialist and other information. Typically this is part of what is known as an ACD system. The information can be incorporated into reports in a variety of formats. The state's N-FOCUS system uses an integrated information system with its computer help desk. Calls come in and are logged by a connection between the phone and computer system. The ACD system can be located either at the telephone company's central office or it can be located within the premises of the call-answering center. The state's communications office indicates that premises-based systems are more economical when a relative small number of telephone lines are involved. For a premises with several lines, a central office-based system is more efficient. The ACD system typically tracks calls for one facility. Therefore, it may be difficult to coordinate an ACD system among several call-answering centers.

#### Alternative Approaches

The network of call-answering centers can be configured in alternative ways. For example, there may be one call-answering center for the entire state, or there may be several regional centers. Centers may be open 24-hours a day, or after-hours calls may be sent to one central after-hours center. We consider three alternative approaches.

One Statewide Call-Answering Center. The first alternative is one statewide call-answering center. This one center would be open 24-hours a day, seven days a week. All 211 calls made within Nebraska would go to the statewide call-answering center.

To implement a single number system, the statewide call-answering center is assigned an 800 number. When a person dials 211, the call goes from the person's telephone to the local telephone company's central office facility. Within the telephone company's central office facility there is a special type of computer used for switching calls. The computer -- which is often called a switch -- is programmed with certain information and has a variety of capabilities. The switch can be programmed to translate 211 calls into the call-answering center's 800 number. The local telephone company's central office facility knows then, in effect, to hand that call to the chosen long distance provider. This converts the call into an intrastate long distance call. The call is then sent through that provider's long distance system to the statewide call-answering center.

Should a person call from the community that houses the call-answering center, the call can be sent directly to the 211 call center without going through the long distance system. If there were one statewide center located in Lexington, for example, a call from Lexington would be sent directly to the Lexington call-answering center without becoming a long distance call. A 211 call from North Platte, on the other hand, would go through the conversion to an 800 number and be sent via the long distance carrier to the call-answering center in Lexington. The difference between a call that is treated as local and one that is long distance is important. A local call has no long distance costs associated with it. A call going through the intrastate long distance system, on the other hand, will incur certain long distance fees. One implication is that it will be less expensive to locate the statewide call-answering center in Omaha, as a greater percentage of statewide calls will be local.

The statewide center will be equipped with multiple telephone lines. Incoming calls are randomly assigned to the available lines. This prevents overburdening particular Information and Referral Specialists. Suppose, for example, that the statewide center has twenty lines. Using an automated call distributor, the first call into the system is randomly assigned to one of the 20 lines and answered by the Specialist monitoring that line. The second call is then randomly assigned to any of the available 19 remaining lines and so on.

When a call comes into the center, it will be answered by a Level I I&R specialist. Complex calls can be transferred to a Level II I&R specialist, located in the statewide call-answering center as well.

Six Regional Call-Answering Centers. The second alternative creates six regional call-answering centers. The NHHSS regions were used for purposes of this report. The state could be divided in other ways to create regions. The regions and hypothetical office locations are shown in Table 5.1.

Table 5.1

Hypothetical Regional Areas and Office Locations

<u>Western</u>	<u>Northern</u>	<u>Eastern</u>	<u>Southeast</u>	<u>Central</u>	<u>Southwest</u>
Gering	Norfolk	Omaha	Lincoln	Kearney	Lexington

In the six regional call-answering centers alternative, each service region would have its own 211 call-receiving center. The regional centers would be open 24 hours per day, seven day a week (24/7).

Each of the six service regions has a well-defined boundary, and each regional center would have its own unique 800 number. Telephone company switches can be programmed so that calls

originating within a particular service region can be sent through the long distance system to the call-answering center that is located in that region. If someone calls 211 from the Western region town of Chadron, for example, the call would ultimately be sent to the call-answering center in Gering, the service center for the Western region.

When a call originates from one of the six communities that houses a call-answering center, the call will be sent directly to the center without going through the long distance system. A call from Lexington, for example, would be sent directly to the Lexington call-answering center. A call from North Platte, on the other hand, would go through the long distance system and be directed back to the call-answering center in Lexington. Again, this procedure saves on long distance charges.

Each call-answering center would be staffed by Level I I&R specialists. One of the six regional centers would also house all of the Level II I&R specialists. To minimize long distance charges, it would be least expensive to house each regional call-answering center in the most populated town in each region and to house the Level II specialists in Omaha.

Six Regional Calling Centers and One After-Hours Center. This alternative is similar to the second in that there will be six regional calling centers. Under this alternative, however, the centers will only be open Monday through Friday, from 8 am to 8 pm. There will also be one after-hours call-answering center serving the entire state. The 211 calls placed between 8pm and 8am or on weekends would go to the after-hours center. (Even though it is referred to as an after-hours center, these I&R specialists will be housed in one of the six regional call-answering centers.) The local telephone switch can be programmed so that during operating hours calls are sent to the 800 number corresponding to the regional call-answering center. After hours, calls would be sent to the 800 number corresponding to the statewide after-hours center. As with the other scenarios, there would be a two-tiered call answering system with Level I specialists in all regional offices and all Level II specialists in one statewide office.

#### Cost Considerations

Costs can be broken into five categories. The first category is start-up costs. Start-up costs include the costs of being assigned telephone numbers, hooking up wires, programming telephone company computers, buying desks, chairs and computers, training, and so on. The second category includes costs for physical facilities. These include building/facility rental costs, ongoing charges for telephone lines, and the like. The third category encompasses administrative costs. This would include costs for center administrators, a system administrator, and other miscellaneous administrative costs. The last two categories are costs for telephone minutes and for I&R specialist salaries.

Obviously costs will vary across the three alternatives described above. Conceptually, it is easy to imagine why establishing one statewide call-answering center will be the lowest cost alternative (see Chapter VII for more information about costs). One statewide call-answering center will have the lowest start-up, physical, and administrative costs since there is only one center. There also will be differences in I&R specialists costs. For example, with one statewide center operating at night (and also for night coverage of six statewide centers with five open weekdays and the sixth open 24 hours a day), there may be a need for only one or two I&R specialists late at night. In contrast, six centers operating 24/7 would require a minimum of six I&R specialists (one at each center) late at night, regardless of the call volume.

Similarly, establishing six regional centers (in contrast to one statewide call-answering center) would require some duplication of facilities and services. It may also lead to higher administrative cost as there will be need to manage six centers rather than one. Telephone usage costs, however, may be lower with six centers than with one. With six centers, a greater proportion of calls will be local and not incur long distance charges.

### Practical Challenges to Coordination of Telephone Systems

Although the regulatory process could pose some challenges to implementation of a statewide 211 I&R system, it seems the regulatory challenges are not too extensive. The Nebraska Public Service Commission must approve the use of the 211 number. In seeking approval, an applicant has to obtain the proper application from the Commission and then submit the completed application with the requisite fee.

The more burdensome task will be getting cooperation from all of the local telephone companies involved. There are several local telephone companies within the state. Each would have to agree to reprogram its local computers so that 211 calls are either sent to the local call-answering center or are translated into the relevant 800 number and sent to the long distance carrier. In Omaha, for example, there are three companies currently providing local telephone service: U.S. West, Cox, and a subsidiary of Alltel. Each of these would have to agree to do the appropriate reprogramming. There is also the issue of cellular phones. If calls can be made to 211 from a cellular phone, then all of the cellular providers will have to determine how to reprogram their local computers to make the system work.

Although these processes should work in theory, it may be more problematic to actually implement such a system with the myriad of companies involved. It may possibly evolve so that a few companies can not or will not make the computer programming changes necessary to implement the 211 system. This would create areas within the state where 211 simply does not work. The Public Service Commission may have to require companies to make the necessary programming changes to ensure that 211 works statewide.

### **Information and Referral Specialists**

IRs play a major role in the quality of an I&R network. They are the concerned voice on the other end of the phone talking with someone who may be emotionally and/or physically stressed. They are the ones interacting with the public and leaving the deepest impressions on callers. With this in mind, it is necessary to realize that IRs must possess certain personal and educational skills.

The Nebraska 211 system will need to carefully consider the qualifications, knowledge, skills, and aptitudes it will require of its IR. For example, if IRs are hired through the State of Nebraska, careful attention must be made to relate IR positions to other similar positions. National minimum certification programs may provide some guidance, as well. For example, AIRS has defined a set of standards and a process of certifying individuals as Certified Information and Referral Specialists (CIRS). See AIRS website for additional information about certification requirements (<http://www.airs.org/>) Nebraska may also wish to contact other statewide I&Rs to determine the qualifications they have set for IRs.

### The Two-Tiered IR System

Nebraska's 211 system may have two tiers (Level I and Level II) of IR assistance. Level I IRs would provide the core I&R services. Level II IRs would be those IRs with more significant and specialized training and experience, such as crisis and intervention training beyond that which would be required of Level I IRs. Under a two-tiered structure, most calls to the 211 system will be answered by Level I IRs. When a Level I IR determines that a call requires additional skill, the Level I IR would have the ability to transfer the call or request assistance from the Level II IR. It is estimated that 20% of the calls will require the additional expertise of Level II IR. This type of two-tiered system has been used successfully by other call centers and offers additional expertise and assistance to callers. It should be noted that a two-tier system will likely be more expensive to equip and staff than a single-tier system. The subsequent cost

analyses in this report use the two-tiered structure for most of the cost projections; however, the analysis also provides a discussion of the possible reduction to costs if the system was reduced to a single-tier system.

#### IRs and the Different Alternatives

There is relatively little difference in the status and procedures of an IRS under any of the three different options, discussed above, regarding centralized as opposed to regional call centers. All IRSs will have to be trained extensively and will need to be qualified. The single center option might streamline administration and training, but having six regional centers might add more diversity and specialized knowledge because the IRSs will be more familiar with their own individual region. In any case, the differences are slight and will be further considered when discussing the cost of the system.

#### Cost Considerations

Costs exist for the hiring and training of IRSs, the possible certification of these Specialists, and their wages and benefits. The labor costs of the three alternatives show the economic advantages and disadvantages among the different alternatives.

Training is strongly emphasized in coordinated I&R programs across the nation. According to AIRS, an IRS needs at least 150 hours of training to perform I&R services to their best capacity. It is estimated that training will cost roughly \$2,700 to \$3,100 per IRS. There are ongoing training costs as well.

Certification is another process that requires small amounts of capital. A fee of \$65 must accompany a Specialist's application to become certified. It also costs \$30 to renew the certification process every two years.

The estimated wage of an IRS in Nebraska is approximately \$12 per hour. This was calculated by taking an average wage from the Nebraska Department of Labor for similar professions. The \$12 rate is applicable to all level-1 Specialist. Level-2 specialists are assumed to earn \$14 per hour. Added benefits, such as health insurance, social security, and Medicare will amount to 27% to 30% of the annual wage of a Specialist.

Labor costs are further explained in Appendix J.

### **The Database and Data Management System**

#### Overview

The data management system that supports the 211 system must, above all, be **complete, accurate, accessible** and **efficient**. It must also be effectively **integrated** with the previously described call management system. Each of these elements is considered below along with potential data management system costs.

#### Complete Data

To ensure complete data, the scope of the database, both breadth and depth must be carefully defined. The breadth of the database is defined by decisions which must be made about the types of resources to be included or excluded, that is, the inclusion and exclusion criteria. The depth of the database is defined by decisions which must be made about the amount and type of information to maintain on each resource, that is, the data elements. Once these decisions are made, a system must be developed to actively seek out resources that fall within this defined scope.

Inclusion and Exclusion Criteria. Published standards for information and referral (AIRS, 1999e, p. [http://www.airs.org/standard\\_1.htm](http://www.airs.org/standard_1.htm)) require that "The I&R service shall publish

criteria for the inclusion or exclusion of agencies and programs in the resource file. These criteria shall be uniformly applied.” These criteria should be describable, understandable, and documentable. They must clearly define why a particular service is included, or *more importantly* excluded, to the satisfaction of all who are involved. Once the criteria are developed, they must be applied consistently and documentation must be kept to support decisions. A formal procedure should be established to deal with complaints or challenges to the decision. Table 5.2 lists areas that should be considered in setting these criteria (adapted from Manikowski, 1995b).

Table 5.2

Area to be considered	Comments
Subject Area	Decisions must be made to define how broadly the term Human Services will be defined by the I&R service. Are recreation services included? The AIRS/INFO LINE Taxonomy provides a framework for considering these issues.
Target Group	Which groups should be served? Some groups, such as the elderly and the disabled, may receive a higher priority as the I&R service is being instituted, but a statewide I&R system should include resources for a broad range of target groups.
Membership Eligibility	Programs that restrict their services to the members of a particular group or association should not be listed.
Geographic	In addition to listing resources in all parts of Nebraska, resources on the other side of state lines may be included if a significant number of Nebraskans rely on these resources. In the future, a connection to neighboring, statewide I&R services would be desirable.
Tax Status	Many I&R services exclude for-profit organizations, although the distinction is more and more difficult to make. Consideration should be given to including for-profit organizations if they provide a particularly important service that is not available elsewhere (e.g., translation services) or provide services to low income groups on a sliding scale.
Private Practitioners	Some referral organizations include private practitioners in their resource file, particularly when directories are printed and sold. A mechanism for fair referral among competing practitioners is needed.
Stability and Viability	Some services may not have a formal office. Clubs and support groups may operate out of a home. An I&R service may require organizations be in business for 6 months to 12 months before they can be listed or an organization have at least one full-time paid staff.
Political and Issue Oriented groups	Groups that serve a primary advocacy function represent a difficulty for an I&R because of the perception that one point of view is being favored by inclusion in the database. The I&R service must strive for fairness and balance.

Examples of specific inclusion/exclusion criteria from I&R services are given in Appendix M.

Data Elements. Once the inclusion and exclusion criteria are developed, the information to be collected from every resource must be defined. The Florida FLAIRS Network Standard Data record contains 18 fields with 628 possible characters to define the agency, 42 fields with approximately 1900 possible characters to describe the program, and 2 fields with 23 possible characters to define the taxonomy category. This standard is given in Appendix K.

Some I&R services are attempting to collect real-time data about the availability of resources that vary from time to time. For example, systems in both Rochester (Woods, 1996) and Waukegan (Lake County Planning and Development Department, 1998) are developing a means to keep track of the actual number of homeless shelter beds available at any given time. Technology makes this tracking possible, with real-time information flow from resources to the I&R database. Inclusion of this capability adds greatly to both the usefulness and the complexity of the system.

Finally, some systems, such as the Resource House in Iowa, are designed to keep track of the basic intake information needed by each resource, and then to facilitate the transfer of this information electronically from the users of the database to the resource itself. This integration between the information and referral process and the intake process also adds to both the usefulness and the complexity of the database.

Ongoing Search for Resources. A database of human resources is a dynamic entity. New services become available to the community throughout the year as new agencies begin service and old agencies add new programs. It is important that the I&R service have procedures and staff resources dedicated to finding and entering new resources into the database. The Internet provides a means to facilitate this process. Encouragement and assistance can be given for new resources to identify themselves to the database manager by filling in a form on paper or on the Internet. It is in the interest of both the new service and the database to include the service. Although the information obtained from the resource provider must be screened and indexed by the data manager to assure consistency in the database, such procedures have the potential of reducing the workload of the data manager and increasing the completeness of the data.

Connections to Other Systems. Completeness will also be enhanced by making connections between the I&R database and other sources of ongoing resource data. Two possibilities exist within NHHSS, licensure data and the resource data within the N-FOCUS system. In addition, the Aging Network is in the process of developing a statewide database of resources related to Aging.

NHHSS licenses nearly 5% of the state's population with some type of health license, along with a large number of health facilities and child care providers. It is technically possible to build a bridge between this data and an I&R database in such a way that changes to the state's data will automatically be reflected in the I&R database. Because decisions have already been made to provide this information to the public on the department's web pages or through the NRRS this connection should be considered a first priority.

The second source of NHHSS information is the resource information within the N-FOCUS system. A connection could be established to automatically feed resource information entered by resource specialists into the N-FOCUS system into the 211 database. This is complex, however, because the N-FOCUS data is also used as a payment database to provide state payments to providers. Many decisions will be required, such as which resources can appropriately be released to the public, and how to standardize between the data elements of the 211 system and that of the N-FOCUS system. Early steps should be taken, however, to ensure that the entire 211 database is available to state resource development specialists when they are searching for

resources for a client and to provide a 211 system with information when resources are added to the N-FOCUS system.

In addition to these two sources of data, several information and referral efforts are underway that should be integrated with and connected to a statewide 211 effort. These include the NRRS maintained by NHHSS, and the Area Agencies on Aging that maintain information about services available in their areas. This information is usually maintained in a database for use by persons responding to inquiries from the public about the availability of services. NHHSS' Aging Services and the Area Agencies on Aging have identified a need to develop a statewide database that would compile information about services available across the state and are exploring tools to manage this information. Any statewide 211 database should integrate with both the NRRS and the efforts of the Area Agencies on Aging so that the effort involved in collecting and maintaining resource data is not duplicated.

#### Accurate Data

Just as new services are continually added, old services are continually changed. A program may modify its service, its eligibility, its address or phone number, or any other essential characteristic. The I&R database must include timely updates so that the information in the database is accurate. Often I&R services mail an update form to all resources on a 6 or 12 month basis, and ask that the information in the database be verified. AIRS Standards require an update frequency of at least every 12 months. Updating can be done by mail (which typically has a low return rate) or by phone, fax, or e-mail. Technology provides additional opportunities to have the resource participate in this update function by filling out a form on the Internet or by sending an e-mail to the data manager. Sufficient personnel resources must be available to update the database on a regular basis. Table 5.3 indicates the personnel resources used for database management in several representative systems.

#### Accessible Data

To be accessible, the database must be indexed with an appropriate taxonomy and must reside on a computer with sufficient hardware, software, and connectivity resources to provide the needed data to the information and referral specialist and, eventually, to the end user.

Taxonomy. The resources in the database are not accessible if they are not identified with terms that are standardized and understandable to anyone looking for a particular service. As mentioned in the review of the literature, a consensus is developing that the AIRS/INFO LINE taxonomy is the most appropriate tool to provide this identification. Human service taxonomy is an evolving field. The AIRS/INFO LINE taxonomy is committed to producing updates to address the needs of I&R services across the country. Accreditation by AIRS requires that this taxonomy be used.

Hardware and Software Considerations. Resources in the database are not accessible if the computing power is not sufficient to deliver them on a timely basis. Storage must be available for the entire database and for back-up copies. Computer storage has dropped in price and sufficient capacity should be available for a reasonable price. Table 5.3 gives hardware and software information for several established I&Rs.

Table 5.3

Service	Population Served	Number of Resources in Database	Personnel Devoted to Data Management	Computer Used	Comments
Atlanta	3.5 Million	Approx. 3000 agencies	2 full time individuals	IBM Netfinity 5500 M10 file server with 512 Meg RAM	Serves 40 workstations. A total of 70 people access the database on a regular basis. Converting to IRis.
Indianapolis	An 8 county region with 1.5 million	Approx. 4000 resources	4 full time individuals	Pentium II 400 MHz running Windows and connected to 5 workstations	4 FTE for 4000 resources is "probably not enough"
Connecticut	3 million	Approx. 4800 resources	6 full time individuals	An NT Server with fastest speed available	Using Refer99, 5 database specialists serve specific region each
Boystown	Nearly the entire country	20,000 resources in US and Canada	2 full time individuals	Novell server with Pentium II and 9 GB hard drive	Resources are updated only every 2 years, using custom developed software based on MS Access

Many software packages have been developed in recent years to meet the needs of I&R providers. The IRis system, developed by Benchmark in Florida, is probably the most widely used. This system is used by Lincoln Lancaster County Health Department (LLCHD) in its own I&R service and in the 17 county coordinated I&R currently being developed in conjunction with LLCHD. IRis is also used by the United Way of the Midlands for its comprehensive I&R service in the Omaha area. A second relatively commonly used package is Refer99 developed by RTM Enterprises. Appendix L contains a comparison of the features of IRis and Refer99.

Connection Considerations. The statewide I&R database must be connected to the information and referral specialists who use it to help callers find resources. Consideration should be given to connecting to the public directly. The connection to the information and referral specialists can be by the Internet or by a closed intranet system. If a single 211 call center were established, a hard-wired, intranet solution could connect all of the operators to the system. This maximizes both speed and privacy. However this should be a system with sufficient speed. The Connecticut 211 system has recently upgraded to a high speed ethernet from a slower speed LAN because of delays experienced by the information and referral specialists. If the callers are in several regional call centers, the data can be transferred to the local call center over the Internet and used within the call center with a local area network.

Efficiency of the Data System

One Data Manager Per Resource. The most important efficiency consideration is to develop a system which ensures that only one data manager is responsible for entry and updating of each resource record throughout the state. Nebraska appears to have overlapping statewide, regional, and local I&R systems. When two or more unrelated information and referral programs

exist in a given area, each I&R system must devote valuable personnel time to updating data on the same service provider. In addition, service providers must take time to provide information to several different systems, and the same data must be stored on more than one computer. Creating a non-overlapping system of data management and a single integrated I&R database greatly increases the efficiency of an I&R database.

Eliminating overlaps in the I&R system presents political and turf problems. Current I&R systems may resist the suggestion that someone else can better collect and update data on resources of interest to the current system. Financial resources devoted to current I&R efforts may not be available to a more integrated statewide system. Both Florida and Texas are attempting to capitalize on current I&R investment by designating existing systems as regional I&R providers who then become part of an integrated system. Along with this designation comes the requirement to follow standards that will allow the data to form a seamless statewide system.

In making these designations, non-overlapping regional providers can be defined along both geographic and programmatic lines. For example some resources such as those dealing with aging or with disability could be assigned on a statewide or larger regional basis while all other resources are assigned to a regional I&R provider on a geographic basis. The important factor is to provide standards to ensure data completeness and quality, and to ensure that there is only one organization serving as data manager for any given service provider. One example of this approach is taking place in Nebraska. Within the 17 county region of Southeast Nebraska, the Lincoln Lancaster County Health Department and the Area Agency on Aging have begun a similar process by agreeing to divide the responsibility for maintaining the data in their regional I&R resource database. Data management assignments can be made in various ways as long as the responsibility of each data manager is clear, and there is only one data manager for each resource. Each resource file should include a clear indication of which agency serves as the data manager for this resource.

Participation of Resources. To maintain the accuracy and consistency of the database, only the authorized, trained data manager can have direct access to the I&R resource file to enter new resources or change and update old ones. Resources themselves, however, have an important incentive to ensure that information about their agency is accurate and complete. To capitalize on this incentive and to allow the resources to assist in the process, the Internet could be used to send information from the resources to the appropriate data manager in the form of proposed updates and additions. E-mail reminders could be sent periodically from the data manager to each resource to remind them to check their listing. This could also be done with a regular mailing.

#### Integration with the Call Management System

Two questions must be answered to determine the appropriate level and type of integration between the data management system and the call management system. A decision must be made concerning the degree that call management and data management functions can be done by the same person. If assigning the functions to the same individual would bring important benefits, this would constrain other organizational considerations. In addition, centralization and decentralization of the data management system must be considered in the same way that it was considered for the call management system. Each are addressed below.

Assigning Call Management and Data Management to the Same Person. Many smaller I&R services integrate call management and data management by assigning data management functions to the information and referral specialists during the times when call volume is low. However, the tasks involved in call management and those in data management are different. The larger I&R systems we contacted have uniformly decided to hire and train separate individuals for these two tasks.

Centralization or Decentralization of Data Management. If separate individuals are assigned the call management functions and the data management functions, as is common in large I&R systems, then centralization and decentralization of the two functions can be considered independently. It would be quite possible to have a centralized call management system with one statewide call center, and a more decentralized data management system with separate data management centers, or vice versa. Advantages and disadvantages of each type of organization will be considered below. It is important to note that regardless of the level of centralization and decentralization chosen, the data management system should strictly abide by a “one data manager per resource” organization to eliminate the inefficiencies and the potential inaccuracies of overlapping data management functions.

One Centralized Data Management Center. It would be possible to arrange the system so that all of the individuals involved in seeking out new resources and updating old resources in the database worked at one central location. The primary advantages of this model would be training, coordination, consistency, and efficiency. It appears, from a consideration of other systems, that the database management function in Nebraska could be accomplished with approximately six full-time equivalent positions. Assigning these people all in one location would allow all of the data managers to devote full time to the job. Initial and ongoing training would all occur in one place. Perhaps most importantly, daily mechanisms could be established to ensure that each data manager applied the taxonomy codes consistently and to share resource identification expertise.

On the other hand, data base managers operating out of one location would be at a disadvantage in terms of their understanding of local resources in all parts of the state. Because they would not be living and working within communities across the state it would be more difficult for them to know of new resources that begin and of changes occurring in established resources. It also may be more difficult for someone in a central location to obtain cooperation from resource personnel compared to a more local, familiar person. It should be noted that Connecticut has developed a centralized system of data management which retains some of the advantages of a more decentralized system. Although all six data managers work in one location, five of the six are assigned to a single region of the state. Therefore each of these five can develop expertise in the resources available in one part of the state. Connecticut has recently tried both centralized and decentralized data management, and currently favors centralization because of the benefit of standardizing taxonomy coding decisions. Although this model should be considered for Nebraska, it may well be that the much greater distances in Nebraska compared to Connecticut would reduce the benefits of such a hybrid system.

A centralized statewide system of data management would require the active consensus and cooperation from current I&R providers. It is clear from Chapter IV that Nebraska currently has many people involved in providing I&R services at a large aggregate cost. Unless the individuals involved in these efforts supported a centralized statewide system, it would be perceived as simply undercutting current efforts.

Several Regional Data Management Centers. A second type of data management organization would be to assign a separate data manager for each of several regions. The advantages and disadvantages of this organization would be the inverse of the centralized model. A regional data manager would be much closer to the resources and could be expected to know about new and changed resources better than someone working in a central location. If Nebraska chose to support a system with a data management FTE for each region, then this model could still include the benefits of specialized full-time data managers. This model has the additional benefit of being able to work with and benefit from current I&R efforts in the state.

The major disadvantage of a regional system of data management would be in coordination and consistency. It would be very important that the six data managers communicate on a regular

basis about coding and resource identification issues, but this may not be as effective as working in the same location. Written protocols would be essential to standardize operation and coding decisions between the regions.

#### Data System Cost Considerations

Data system costs will depend on the model chosen. For purposes of the model in this report, hardware costs are estimated to cost \$15,000. Between two and six individuals would be required to maintain the database. For purposes of the model, four full-time individuals are assumed.

#### **Diversity of Public Access to Database and/or Operators**

Public access to the statewide I&R database should acknowledge an increasingly diverse public and an increasing public utilization of the Internet. TDD/TTY access should be provided for individuals who are deaf or hard of hearing. Individuals whose first language is not English should be able to access operators who speak their language, or translation services should be offered. Direct access through the Internet should be provided for those who prefer this way of searching. Internet access might be enhanced by direct e-mail access to the 211 operators. Each of these is discussed below.

Several methods are available to provide TDD/TTY access for individuals who are deaf or hard of hearing. The state TDD/TTY relay system is available free of charge and could be used to provide a TDD/TTY connection to the 211 operators. Although this has a cost advantage, it is somewhat awkward for both caller and operator. Alternatively stand alone TDD/TTY can be purchased for between \$500 and \$800 per unit. One unit per call center would provide minimum service. Finally, software is available to allow each workstation to function as a TDD/TTY machine.

Because of the increasing number of Spanish speaking Nebraskans, consideration should be given to providing Spanish/English bilingual operators in each call center. Language translation services would be essential for other languages. The State of Nebraska has a contract with AT&T Language Line for translation services. Under this contract, for example, translation services are immediately available for 140 separate languages. Daytime prices range from \$2.20 to \$2.60 per minute during the day time, and from \$2.50 to \$4.50 per minute after hours depending on the rarity of the language in this country. Nationally, the average length of call for health care applications is 8 minutes, and calls to the 211 call center could be expected to be in this range. Under the Language Line price structure, there is a \$50/month minimum, but it is possible that a 211 call center could be included in the state contract.

The Internet provides an opportunity to provide the data directly to the public. Several options are available for connecting the database to the Internet. The developers of many proprietary packages, including both IRis and Refer99, provide an Internet connection to the data for a fee (shown in Appendix L). This fee includes some enhancements such as providing maps to locate the resources and providing a machine translation into several foreign languages. Because the proprietary packages make the resource database available in a standard form, the state could also develop their own internet interface to meet specific needs. The state of Iowa has contracted with Northlight to produce their Resource House that can integrate with IRis systems and is built to be usable by a citizen with an 8<sup>th</sup> grade education.

#### **Administrative Structure and Administration**

A structure must be developed to administer the system including personnel, and legal considerations. Marketing and publicity must be developed to ensure that citizens in all parts of Nebraska know about the system and understand how it is used.

### Overall Administrative Structures

The implementation and on-going maintenance of any statewide network of this scope depends on a strong overall administrative oversight, development of standards of operation, and on-going monitoring and evaluation of services. Some coordinated I&R services are administered by non-profit organizations, other are administered by states or municipalities. This report does not attempt to select an administrative structure, but instead presents various structures that appear to be succeeding around the country.

For the purposes of this report, the costs and benefits of administrative structures are viewed as neutral in terms of quantifiable costs or benefits. That is, the selection of a specific administrative structure will be unlikely to change the overall costs of any of the three scenarios in relation to one another. However, for the purpose of providing an idea of the range of structures a coordinated 211 system might be organized as, four models are presented below. It is beyond the scope of this study to recommend any specific structure.

State Government Contract with Regional I&Rs - Virginia. The Commonwealth of Virginia contracts with seven I&Rs throughout the state to provide services for their geographical regions. Five of the I&Rs are United Way organizations and the remaining two are private organizations. The Commonwealth takes the lead in administering and overseeing the overall service provision.

Multiple Agencies Providing Services with Statewide Coordination - Texas. The Texas Health and Human Services Commission operates the Texas Information and Referral Network, that is responsible for providing the statewide vision, management, and development of an I&R system that utilizes community based services. The state is divided into 25 regions, with each region having an Area Information Center (AIC) to answer I&R calls. The 25 AICs are afforded wide autonomy in determining operating hours, providing a toll-free number, and in capturing information about calls.

One Private, Non-Profit Agency Providing I&R Services - Columbus, Georgia; Atlanta, Georgia; and Connecticut. All three 211 systems were developed from existing I&R services. In Columbus, Georgia, the 211 system has been built upon the CONTACT Helpline system, that had been in existence for 21 years. In Atlanta, the United Way of Metropolitan Atlanta had provided I&R services to citizens and service providers in the area for more than 20 years, prior to moving the service to a three-digit dialing system. Like Atlanta, the United Way of Connecticut had also already been providing I&R services (theirs on a statewide basis) prior to moving the service to the three-digit dialing system.

Multiple Agencies Sharing Data For Use By Individual I&Rs - Florida. This model relies on a system of coordinated I&R data that is overseen by a non-profit, statewide alliance. In Florida, the alliance of I&Rs is named FLAIRS. FLAIRS membership is open to all interested organizations. A board of directors, elected from the membership, hire and supervise the network staff and coordination. The Statewide Network is the umbrella under which overall system and process is managed. Organizations throughout the state contribute to the database. Regional Coordinators determine and accredit data managers; support regional group processes; administer the statewide standards; determine their own products, for example, directories, subscriptions, licenses, pricing, and any revenue sharing; and provide quality assurance, technical support, and training. Regional autonomy is a premise of the Statewide Network. The statewide network does not coordinate the call management function in Florida.

### Marketing and Publicity

One of the key features of 211 is that it is easy-to-remember and easy-to-use. When Atlanta moved to a 211 system, they experienced a 33% increase in calls by the first 9 months with what

they described as minimal marketing. Connecticut's call volume increased approximately 40% during the first year of 211 service. However, building and promoting an awareness of the 211 system is an indisputable key for establishing a successful I&R service. That is, constituents must *know* of a system before they will remember and use the system.

Beyond raising awareness, marketing and publicity initiatives should also educate users about when to use 211. Unless users know what type of calls are appropriate for 211, they may neglect to use the system (because they are unaware of the breadth of services information available) or may use the system inappropriately. A cautionary note of the importance of educating consumers can be found within the success of the 911 system. 911 has been a public service success story. Yet, there is now concern that 911 is too easy to use for frivolous information seeking. Some audits and studies have suggested that some 911 systems suffer from between 50-90% inappropriate calls. It is now believed that public education about the appropriate use of 911 was downplayed in the rush to raise public awareness. It is also important that marketing of a 211 system does not imply it is appropriate for use in emergency situations. Joint planning with local 911 officials is important in all marketing efforts.

Cost Implications. This report evaluates the costs and benefits of several scenarios of 211 system implementation. For the purposes of the analysis, the same marketing and publicity efforts and the same budget is projected for each of the three scenarios. In that way, then, marketing and publicity costs are considered a neutral expense for evaluating the costs and benefits projections for the three scenarios.

Outcomes. An important component of any marketing and publicity initiative will be to raise awareness of 211. The success of marketing and publicity will be an increased volume of 211-appropriate calls. An increased volume of calls will lead to greater usage of the system, and greater total costs to administer the system. It is important to note that marketing and publicity efforts will directly impact the actual call volumes. Marketing and publicity initiatives, therefore, should be considered as staffing and technological resources are planned.

Another likely outcome of successful marketing and publicity of the 211 service may be increased demand for or usage of services that constituents are locating more easily (i.e., through 211) than in the past. It will be important to consider direct service providers and include them in marketing and publicity efforts.

Budgeting. Three I&R systems (Atlanta, Connecticut, and Indianapolis) provided information about the amount of funds they devote to marketing and publicity efforts. These systems devote between 1% to 5% of their annual budget to marketing costs (the figures do not include staff time or printing expenditures).

Other Considerations.

Consistent Look. The creation and consistent use of a logo is important in creating awareness of the service. In Connecticut the logo is accompanied by the catch phrase "We'll help you find answers to life's toughest questions." In order to maximize effectiveness of a logo or phrase, it should be included in all communications including stationery, envelopes, mailing labels, folders, ads, posters, and so on.

Target Markets. Other organizations have given careful consideration to their clients for 211. For example, coordinated I&R services have developed specific marketing and publicity pieces for certain demographic groups (teens or the aging

population), high need groups (such as substance abusers), non-English speaking populations, special populations (persons with visual handicaps), and so on.

Collaborations. We have found that it is vital for I&R systems collaborate with other organizations. Collaboration has assisted others in understanding how to reach specific target audiences and may provide a lower cost means of reaching the audience through existing channels. Some systems have particularly found collaboration meaningful with organizations such as 911 systems, United Ways, Chambers of Commerce, human service organizations, senior centers, school systems, and the faith community.

Products. Marketing and publicity have also been used to help promote and sell products to increase revenues to support the system. In Connecticut special brochures and order forms have been developed for consumers of their informational products.

Marketing and Publicity Plans. Other 211 and coordinated I&R systems have developed Marketing and Publicity Plans that clearly outline efforts to raise awareness and educate users about the 211 system. The plan should give attention to special populations (e.g., persons with disabilities, teens, non-English-speakers, senior citizens, etc.). In addition, the Marketing and Publicity Plan may also include a component focused on promoting products (such as directories) that will be available for purchase. The components of a comprehensive Marketing and Publicity Plan might include:

Marketing Goal(s). The overall result to be achieved by marketing and publicity efforts (e.g., “Nebraskans will know how to access the 211 system and its related products”).

Objectives. Measurable, attainable, short-term outcomes expected to be accomplished through the implementation of the plan (e.g., “To attract 100,000 callers to 211 in the first year,” “To enable 5,000 searches of the website database,” or “To generate revenue of \$2,000 of product sales”).

Strategies and Tactics. The means by which objectives will be accomplished. “Strategies” refer to broad approaches and “tactics” are those specific actions that are taken within each strategy. For example, a strategy might be “Segment the market for special outreach to teens.” A related tactic might be “Produce teen-friendly brochures.”

Broad Time Table. Overall annual plan for general implementation. For example the time table might include “March - finalize design for logo.”

Production Schedule. The production schedule provides a tabular guide to what will be produced and disseminated when, to whom, by whom and for what cost. The table would likely have headings for: Product description, audience, version(s), quantity, date, cost, and personnel commitment.

An example follows:

Table 5.4

Product description	Audience	Version(s)	Quantity	Date	Cost	Personnel Commitment
Bus Displays						
Development	Urban Nebraskans	English and Spanish	2 (one in English, one in Spanish)	Finalize design June.	\$500	Marketing Coordinator 10 hours to oversee design
Placement	Urban Nebraskans	English and Spanish	20 (15 English, 5 Spanish)	Place July - December	\$10,000	Marketing Coordinator 10 hours to plan placement and negotiate contracts

Comprehensive Budget. A projected summary of expected expenditures. Total marketing and publicity costs should include such items as personnel, travel, printing, copying, consultants, contracts, and other costs.

Activities and Products. The following marketing and publicity activities and products have been profitably used by 211 and other coordinated I&R systems:

Table 5.6

I&R System Marketing and Promotion Activities and Products	
Billboards	Rolodex cards
Television and radio public service announcements	Workplace communications
Television and radio interviews	Black and white ads for newspapers
Fast food restaurant tray liners	Websites
Bus signs	Website links
Videos	Note pads
Direct mail pieces	Magnets
Visits to media sources	Banners
Press releases	Telephone booth displays
Wallet-size cards	Brochures
Conference presentations and displays	Annual reports
	Posters

Legal Considerations

Information and referral services provide information to individuals regarding social agencies and resources. Because I&Rs are engaged in the business of providing information to the public, it is necessary to consider the legal implications of that undertaking and to outline possible steps an I&R can take to minimize exposure to legal liability. We spoke to numerous directors of I&Rs throughout the country and posed the question to them. Unanimously they expressed the opinion that referral-related legal issues, while certainly something to plan for when developing an I&R service, rarely, if ever, arose. Peter Aberg, the executive director of AIRS, which has contacts with I&Rs throughout the country, could not think of a single instance of a lawsuit ever having

been filed against an I&R. However, all the I&Rs suggested that some sort of liability insurance (through purchased, self-coverage, or other arrangement) is a good idea.

There are a number of steps I&Rs can take to guard against legal action. Some I&Rs require agencies listed with the I&R to sign a disclaimer that the information the agency provides is true and accurate. Agencies are also required to exonerate the I&R from any errors that may occur as a result of a referral. Lee Francisco of First Call Minnesota recommended this approach. A sufficiently trained staff can also ensure that legal problems are kept to a minimum or avoided entirely. Staffers who make it clear to callers that the I&R is providing information only and that the caller has the ultimate responsibility to decide whether to make the call or not protect the I&R from disgruntled callers. Another step that can be taken to guard against legal problems is to hire masters level therapists licensed to practice as clinical supervisors for IRS. Such individuals could be consulted when IRS need assistance in determining the types and parameters of appropriate referrals.

Some consideration might be given to the structure of the I&R and how that affects liability issues. A decentralized I&R, because of the distribution of call-in centers across a large geographic area, may present more opportunities for legal problems to arise than a centralized plan.

### **Capitalizing on the Value of the Database**

A Nebraska state-wide 211 system with an accurate and complete database of human services would have inherent value, some part of which could be captured to help support the system. The experience of others across the country suggests two ways that this value might be captured: through the sale of customized data products and by allowing other forms of advertising in conjunction with the use of the data. Consideration should be given to each of these possibilities, taking care to determine the degree that it would be consistent with the overall goals and philosophy of the system.

#### Customized Data Products

Many I&R services around the country recover some of their expenses by producing and selling custom or specialized directories. These may be customized to a particular geographic area, or to a particular service sector -- services for the elderly, for example. These directories are valuable to many people who work in the service system and form a convenient way for these people to access the data from the I&R system.

For example, Connecticut produces five regional directories on a two-year cycle. Each directory contains approximately 1200 resources, 60% of which are specific for a given region, and 40% of which are statewide resources. These cost approximately \$20 each to produce in addition to the normal database maintenance costs, and they sell for \$35. Many are given away for free, but approximately 2500 are sold each year for a revenue of \$37,500 above costs. The agency is beginning to produce a CD-ROM version of their data for approximately \$20 of additional costs which will sell for \$89 each. Connecticut also produces a specialized directory of services for children under three with disabilities. This is done as part of a contract with the Early Intervention program which includes running the ChildFind hotline for Connecticut as part of the 211 program. Other specialized directories are done as a service to specific programs and not to generate revenue.

The 211 program in Atlanta spends approximately \$9,000 in additional costs to produce 5000 general resource directories, nearly 400 pages in length, which sell for \$30 each. They sell approximately 3300 of these in a year for a revenue of approximately \$90,000 over expenses. They also produce 3 to 4 specialized directories (approximately 35 pages each) but do not generate significant revenue with these sales.

The Indianapolis I&R service produces a 1000 page paperback directory which they sell for \$40 each. Each book has approximately \$7 of materials costs and \$50 of personnel costs (for data maintenance). However, there are several sponsors who subsidize the costs of the book in return for a logo and some advertising. In addition, it includes a section in which private practitioners can buy space to describe their services. They sell between 1500 and 1700 each year.

#### Advertising Revenue

In Waukegan, Illinois, the I&R provider is BVM Communications, Inc., a private for-profit company that has assembled a database of human services and charges local businesses to install kiosks which make the I&R data available to the public. Advertising space is sold in conjunction with the kiosks. The local planning department is the recipient of a 1999 TIIAP award from the Department of Commerce designed to enhance this database and to add in a geographic information system (GIS) component that will greatly improve the value of the database for human service planning purposes. However, the profits from advertising at the kiosks will continue to support the I&R effort.

#### **Evaluation**

An I&R service should build in both a process evaluation and an outcome evaluation. Processes can be measured by keeping track of the time, duration, and content of calls as well as tracking the growth of the database. In addition, calls which do not result in a successful referral should be tracked as a measure of unmet needs in a community.

Outcomes are more difficult to measure but equally important. Many I&R programs call back a certain percentage of their callers at random to determine whether the information had been helpful. It is recommended that the call-back be made by a different person than the one who took the initial call. Some evaluation should also be designed to determine the effect of the service on agencies, including completed referrals and reduction of inappropriate calls, and on the human service system as a whole.

## VI. Costs

### Allocating Costs

This report does not attempt to allocate costs to any specific entities. That is, there is no attempt to allocate costs among state funds, private organizations, grant funding, or other resources. However, it is worthwhile to note that partial funding for the 211 system may be available to the extent that 211 may be used to fulfill mandates or program goals for information and referral availability in specific program areas or geographic areas. For example, in Connecticut the 211 system fulfills state and federal requirements for information/referral/crisis intervention for programs such as: Maternal/Child Health Services, Birth to Three Intake, Child Care Infoline, Substance Abuse Hotline, Alzheimer's Disease Resource/Referral, Children's Health Infoline, and WorkSteps (a social services program for persons who have not successfully transitioned from welfare to work). In Iowa and Illinois, there are plans to use I&R services to comply with the federal Workforce Investment Act of 1998 (Public Law 105-220).

In Minnesota, federal funds are being used to support their statewide I&R program in the following percentages:

Medical Assistance Title XIX	55%
Child Support Enforcement Title IV-D	1%
Foster Care/Adoption Title IV-E	4%
Refugee	2%
Minnesota Family Investment Program	38%

In Nebraska, collaborations among existing information and referral numbers (and funding) and mandates could be incorporated into a single 211 system. For example, state funding collaborations may be forged with existing programs that currently sponsor information and referral services for specific populations (through mandate or choice) or will have resources included in the 211 database. In Nebraska, such programs might include Medicaid, Child Care Block Grant, Early Intervention, Food Stamps, Temporary Aid to Needy Families (welfare), Maternal/Child Health, Older Americans Act, and ChildFind. New programs, too, may offer opportunities for collaboration. For example, LB 148 passed during the Ninety-Sixth Legislature (First Session) established the Nebraska Lifespan Respite Services Program and calls for establishment of a "single local source for respite service information and referral."

As in other states and regions across the country, 211 may be supported by funding collaborations that include private, and local funding as well. Additional collaborations may be found with local United Ways (the national United Way has been at the forefront in promoting 211), charitable foundations, other grant making organizations, and businesses. Employers, for example, are increasingly recognizing that family pressures affect workplace productivity and progressive employers may understand the benefit of contributing to a system that assists employees in locating needed resources.

### Comprehensive Costs

The proposed Nebraska 211 system would use a variety of resources to provide a valued public service. The cost of this system is crucial in determining which institutions will fund this network as well as determining if it is a feasible option at all.

The comprehensive cost of the I&R network can be divided into two categories that will allow one to examine total cost more effectively. One-time costs, as the title suggests, are costs associated with the implementation of the system, but will not create more expenses once the network is running. Ongoing costs represent expenses that will continue after the initial implementation of the network. Most of the ongoing costs depend on the usage of the network.

#### One-Time Costs

One-time costs occur with the development of the I&R system but will not add expenses to the network afterwards. These are often called fixed costs because they do not depend on the usage of the network. Station elements are a one-time cost that must be incurred in order to construct efficient workstations. Desks, chairs, telephones, and file cabinets are a few of the elements that are needed. The second one-time cost is the cost of establishing a phone system. This cost includes the ordering of the system, central office charges, costs for telephones and premises work to properly install the system to the telephone network. The computer system represents the third one-time cost. Each station at every office will have a computer, and this computer will access the I&R database for Nebraska. The computer and its installation into the appropriate network as well as miscellaneous technology costs are costs incurred with the implementation of the network. The cost of the equipment and personnel to establish the database makes up the fourth component of one-time costs. Training is the fifth one-time cost. All IRSs and administrators must be trained in order to efficiently manage the 211 system. Finally, other miscellaneous, fixed costs are the balance of the total one-time costs of the Nebraska 211 system.

#### Ongoing Costs

Ongoing costs comprise a distinct majority of the total costs of the I&R network. There are numerous ways the elements of ongoing costs can be categorized. There are physical and labor costs associated with the call-answering centers. There are also telephone-related and system administration ongoing costs that have to be considered.

Physical costs include the monthly costs associated with floor space and a grouping of miscellaneous costs to ensure an efficient workplace. The miscellaneous costs include necessities such as, copying, postage, supplies, consultants, travel, insurance, and marketing. Labor costs encompass the costs for Level-1 and Level-2 I&R Specialists and for center administrators. There are a number of telephone-related costs, including monthly fees for telephone numbers, possible ACD charges, Centrex lines and 800 numbers, as well as 800-number usage costs. There is also a cost for a system administrator.

Another method of breaking down ongoing costs is to look at usage sensitive and non-usage sensitive costs. Usage sensitive costs are directly related to the usage of the system. Charges for the number of minutes used for 800-number service are an example of usage sensitive costs. Non-usage sensitive costs, while they occur monthly, are not dependent, per se, on usage. For example, each center has to pay a monthly fee for its specific 800 telephone number whether it receives one call or thousands of calls a month at that number. Dividing costs into usage sensitive and non-usage sensitive components is useful because it allows determining how much the total system cost will change if usage changes.

Finally, it is possible to take the total center cost and divide it by the estimated usage to calculate the average cost per call. Average costs can be broken down further by separating them into average usage sensitive costs and average non-usage sensitive costs. This gives yet another alternative to measure costs.

The exact methodology and values used to calculate costs are shown in Appendix J.

These costs represent a “worst case” scenario. If some existing I&R facilities were used in a single number system, costs would be reduced. These existing facilities may include office space, computers, I&R specialist time and administrative support.

### **Three Call Center Configurations**

This section describes results of the cost analysis. The analysis is performed using each of the three different 211-system configurations previously discussed. The first configuration has one statewide call-answering center open 24 hours a day, seven days a week. The second configuration has six regional call-answering centers each open 24 hours a day, seven days a week. The third has six regional centers with five of those centers open weekdays and the sixth open 24 hours a day, seven days a week.

For each configuration, results are derived using various assumptions about initial usage and usage growth rates. An earlier part of this report indicated that different locales have had varying usage rates for information and referral programs. Florida programs had usage rates equal to from 5% to 17% of the constituent population. Connecticut's statewide program served about 6% of the population. Texas projected usage of up to 10% of the underlying population. The smallest initial usage level will be 4% of Nebraska's projected year 2000 population, or 72,000 calls annually. If this grew by 25% over five years, expected usage would be 5% of the population. The largest usage level will be 7.5% of Nebraska's projected year 2000 population, or 135,000 calls annually. If this grew by 100% over five years, expected usage would be 15% of the population. A middle value of 103,500 initial year calls is used as well.

It is estimated that initial usage will be lower than the current usage for Nebraska's 211 system, as indicated by the survey of Nebraska I&R services in Chapter IV, for at least three reasons. Not everyone will know about the 211 single number system. Some people may still make calls to the numbers they used before the 211 system became operational. This would make initial usage of the 211 system below the current usage of the existing I&R system. As people learn, however, this may suggest a fairly fast growth rate. Secondly, people may know about the 211 system but may not use it. Some existing I&R agents may maintain their current systems and may keep some callers. Finally, if the 211 system works as planned, there will be fewer misdirected calls. People will not have to hunt for the information they desire.

Results are calculated using three usage growth rates over a five-year period. (In this report, both the estimated costs and benefits are reported as the “discounted value.” That is, over the five-year period the costs and benefit dollar amounts account for the time value of money.) Connecticut experienced varying growth rates over the life of its I&R system. In addition, it started with usage at only 1.5% of the population. Since it is unclear at this point what an expected growth rate might be, we use a 25%, 50% and 100% growth rate in usage over the five-year period. With an initial usage of 72,000 calls, for example, usage would grow by 25% to 90,000 calls in the fifth year. With a 100% growth rate usage would grow to 144,000 calls in the fifth year.

### **One Statewide Call-Answering Center**

Table 6.1 shows the results of cost estimation when there is one statewide call-answering center open 24 hours a day, seven days a week. Results are shown for an initial usage level of 72,000 calls annually and all three growth rates. The first column of Table 6.1 shows results when the 72,000 calls grow by 25% over 5 years. The second column shows results when calls grow by 50% over 5 years. The third column shows results when calls grow by 100% over 5 years.

Table 6.1

Usage and Cost For One Statewide Call-Answering Center  
Assuming 72,000 Initial Calls and Various Growth Rates

		25%	50%	100%
(1)	Total Number of Calls over Five Years:	403,746	445,452	524,535
(2)	Present Discounted Value of Total Cost Over Five Years:	\$5,251,967	\$5,407,033	\$5,676,957

The first row of Table 6.1 shows the number of calls that are received over the five-year period when annual usage starts at 72,000 calls. When usage grows by 25% over five years, a total of 403,746 calls are received over five years. When usage grows faster, more calls are received over the five-year period. The second row shows the present discounted value of the total cost of operating a single number system to meet projected demand over that five-year period. When demand grows at 25%, the present discounted value of the total cost over the entire five-year period for operating one 24-hour, statewide, call-answering center is \$5.25 million. When demand doubles over the five-year period, the present discounted value of the total cost is almost \$5.68 million.

Total usage is 30% higher under the fast growth scenario than the slow growth scenario. Costs, however, rise by only \$425,000, or about 8%. This relatively modest increase in costs occurs for two reasons. First, there are significant fixed costs that hardly change when usage increases. Second, there is significant excess capacity in the system. Consider the fixed costs. Table 6.2 breaks costs into their usage sensitive and non-usage sensitive components. As the names imply, usage sensitive costs vary with usage. Non-usage sensitive costs generally do not.

Table 6.2 Breakdown of Usage Sensitive and Non-Usage Sensitive Costs For One Statewide Call-Answering Center 72,000 Calls in Initial year			
	<b>Growing 25% Within Five Years</b>	<b>Growing 100% Within Five Years</b>	<b>Percent Change</b>
<b>Total Calls:</b>	<b>403,746</b>	<b>524,535</b>	<b>30%</b>
Physical Facility:	\$505,921	\$555,909	10%
Data Management:	\$841,333	\$841,333	0%
Administrative:	\$1,067,625	\$1,067,625	0%
Start-up:	\$285,470	\$296,112	3.7%
<b>Non-Usage Sensitive Costs:</b>	<b>\$2,700,377</b>	<b>\$2,761,007</b>	<b>2.2%</b>
Telephone:	\$338,290	\$437,488	30%
I&R Labor:	\$2,213,300	\$2,478,463	12%
<b>Usage Sensitive Costs:</b>	<b>\$2,551,589</b>	<b>\$2,915,950</b>	<b>14.3%</b>
<b>Total Cost:</b>	<b>\$5,251,967</b>	<b>\$5,676,957</b>	<b>8.1%</b>

In Table 6.2 physical facility costs are 10% higher when usage grows by 100% rather than 25% over five years. This occurs because more call-answering stations will be necessary with faster growth. Under the slower growth scenario, six call-answering stations will be necessary by the fifth year. Under the fast growth scenario, eight will be necessary by the fifth year. The extra two stations add to facility costs. Data management, administrative and start-up costs, however, remain almost unchanged. Therefore, non-usage sensitive costs increase only 2.2% in moving from slow growth to fast growth.

Usage sensitive costs are another matter. Thirty percent more calls mean 30% more in long distance charges. More stations also mean more labor, but not 30% more labor. Hence, usage sensitive costs go up, but by only 14%. Combining non-usage and usage sensitive costs, total costs go up by 8.1%.

The impact of greater usage on labor costs becomes clearer when excess capacity is considered. Table 6.3 shows the number of workers that are needed at the center on weekdays and weekends, and the percentage of time those workers are busy. The first two columns show the number of employees and their utilization in the first year when 72,000 calls are received. For Level I calls there are four IRSs needed during weekday days, two during weekday evenings and one during weekday nights. While the daytime specialists are fairly busy, the night specialists are not even utilized half-time. On weekends, one specialist is needed, except during the daytime hours when two are needed. One Level II specialist is needed at all times, but that specialist is hardly ever busy. The busiest time is during the weekday days when the Level II specialist is busy 35% of the time. It is clear that usage could grow significantly and no more Level II specialists would be needed. There would be little call for more nighttime Level I specialists as well.

Table 6.3 Number of Employees and Employee Utilization For One Statewide Call-Answering Center 72,000 Annual Calls Initially						
			<b>25% Growth</b>		<b>100% Growth</b>	
	First Year		Fifth Year		Fifth Year	
Annual Calls:	72,000		90,000		144,000	
	<u>Employees</u>	<u>Utilization</u>	<u>Employees</u>	<u>Utilization</u>	<u>Employees</u>	<u>Utilization</u>
<b>Level I</b>						
<b>Weekday</b>						
Daytime	4	87%	5	87%	7	99%
Evening	2	87%	3	72%	4	87%
Night	1	47%	1	58%	1	93%
<b>Weekend</b>						
Daytime	2	51%	2	63%	3	67%
Evening	1	70%	1	87%	2	70%
Night	1	17%	1	22%	1	35%
<b>Level II</b>						
<b>Weekday</b>						
Daytime	1	35%	1	43%	1	70%
Evening	1	17%	1	22%	1	35%
Night	1	5%	1	7%	1	10%
<b>Weekend</b>						
Daytime	1	10%	1	13%	1	20%
Evening	1	7%	1	8%	1	13%
Night	1	2%	1	2%	1	3%

The second set of columns in Table 6.3 shows what happens when demand grows by 25% to 90,000 calls in just the fifth year. The Level II specialists are busier, but still only one is needed at any time. Hence Level II labor costs do not increase. A Level I specialist is added during weekday days and another is added for weekday evenings, but otherwise Level I labor costs stay the same as well.

The third set of columns shows what happens if demand were instead to grow by 100% to 144,000 calls in just the fifth year. The Level II specialists are even busier, but still only one is needed at any time. Hence Level II labor costs do not increase. More Level I specialists are added during day and evening shifts, but not at night. That is why a faster growth rate will increase labor costs, but not as much as it increases call volume.

Table 6.4 shows total usage and costs when initial usage is either 103,500 or 135,000 calls annually. The first column of Table 6.4 shows results when calls grow by 25% over 5 years. The second column shows results when calls grow by 50% over 5 years. The third column shows results when calls grow by 100% over 5 years. Rows one and two are results when initial usage is 103,500 annual calls. Rows three and four are for initial usage of 135,000 calls annually.

Table 6.4 Usage and Costs for One Statewide Call-Answering Center With 103,500 and 135,000 Initial Calls and Various Growth Rates				
		Percentage Increase in Calls Over Five Years		
		25%	50%	100%
<b>103,500 Initial Calls</b>				
(1)	Total Number of Calls Over Five Years:	580,385	640,337	754,020
(2)	Present Discounted Value of Total Cost Over Five Years:	\$5,884,127	\$6,168,646	\$6,610,323
<b>135,000 Initial Calls</b>				
(3)	Total Number of Calls Over Five Years:	757,024	835,222	983,504
(4)	Present Discounted Value of Total Cost Over Five Years:	\$6,702,735	\$6,959,712	\$7,724,591

The first row of Table 6.4 shows the number of calls that are received over the five-year period when annual usage starts at 103,500 calls. When usage grows by 25% over five years, a total of 580,385 calls are received. When usage grows faster, more calls are received over the five-year period. The second row shows the present discounted value of the total cost of operating one statewide, call-answering center to meet projected demand over that five-year period. When demand grows at 25%, the present discounted value of the total cost over the entire five-year period is \$5.88 million. When demand doubles over the five-year period, the present discounted value of the total cost is almost \$6.61 million.

The third row of Table 6.4 shows the number of calls that are received over the five-year period when annual usage starts at 135,000 calls. When usage grows by 25% over five years, a total of 757,024 calls are received. When usage grows faster, more calls are received over the five-year period. The fourth row shows the present discounted value of the total cost of operating a statewide call-answering center to meet projected demand over that five-year period. When demand grows at 25%, the present discounted value of the total cost over the entire five-year period is \$6.7 million. When demand doubles over the five-year period, the present discounted value of the total cost is almost \$7.72 million.

The results in Table 6.4 indicate, once again, that cost increases are less pronounced than usage increases. This is still due to significant fixed costs and the relatively low use of nighttime Level I and all Level II IRS.

**Six Regional Call-Answering Centers Open 24 Hours a Day**

The next set of tables shows the results of cost estimation when there are six statewide call-answering centers, each open 24 hours a day, seven days a week. In this example, each center serves an NHHSS regional service area. Table 6.5 shows total usage and present discounted costs for the various initial usage and growth rates.

Table 6.5 Usage and Costs for Six Regional Call-Answering Centers Open 24/7 Various Initial Calls and Growth Rates				
		Percentage Increase in Calls Over Five Years		
		25%	50%	100%
<b>72,000 Initial Calls</b>				
(1)	Total Number of Calls Over Five Years:	403,746	445,452	524,535
(2)	Present Discounted Value of Total Cost Over Five Years:	\$11,814,876	\$11,881,163	\$12,085,105
<b>103,500 Initial Calls</b>				
(1)	Total Number of Calls Over Five Years:	580,385	640,337	754,020
(2)	Present Discounted Value of Total Cost Over Five Years:	\$12,167,541	\$12,417,122	\$12,818,773
<b>135,000 Initial Calls</b>				
(3)	Total Number of Calls Over Five Years:	757,024	835,222	983,504
(4)	Present Discounted Value of Total Cost Over Five Years:	\$12,835,727	\$13,140,750	\$13,630,529

The first two rows of table 6.5 show that when total usage over the five-year period is approximately 404,000 calls, the present discounted value of costs to operate the system over that period is \$11.8 million. The last two rows show that when total usage over the five-year period is 983,000 calls, the present discounted value of costs to operate the system over that period is \$13.6 million. With more than double the usage, costs only increase by 15%. Again this is due to significant fixed costs and underutilization of resources.

Table 6.6 compares the costs of one statewide call-answering center to the costs of six regional call-answering centers. The table assumes usage is 103,500 calls that grows by 50% over the five-year period. The first column shows costs for one statewide call-answering center. The second column shows costs for six regional call-answering centers. The third column shows the percentage difference between the first two columns.

Table 6.6 Comparison of Usage Sensitive and Non-Usage Sensitive Costs For One Statewide Call-Answering Center versus Six Regional Call-Answering Centers			
	One Statewide Call- Answering Center	Six Regional Call- Answering Centers	Percent Difference
<b>Total Calls:</b>	<b>640,337</b>	<b>640,337</b>	
Physical Facility:	\$610,813	\$1,473,594	141%
Data Management:	\$841,333	\$843,737	1%
Administrative:	\$1,067,625	\$3,895,480	265%
Start-up:	\$308,020	\$594,660	93%
<b>Non-Usage Sensitive Costs:</b>	<b>\$2,827,818</b>	<b>\$6,807,472</b>	<b>141%</b>
Telephone:	\$535,562	\$403,413	-25%
I&R Labor:	\$2,805,266	\$5,206,236	86%
<b>Usage Sensitive Costs:</b>	<b>\$3,340,828</b>	<b>\$5,609,650</b>	<b>68%</b>
<b>Total Cost:</b>	<b>\$6,168,646</b>	<b>\$12,417,122</b>	<b>97%</b>

The most obvious comparison is that costs almost double when moving from one to six call-answering centers. Usage stays the same at 640,000 calls over five years. It is twice as expensive to answer those calls from six regional centers than from one statewide center. Facility costs go up because there are six centers to rent rather than one. Administrative costs increase 265%, as there is a need for six center administrative teams rather than one. Interestingly, telephone costs go down. With six centers, a lower percentage of calls will be long distance. This will lower long distance costs. Labor costs almost double. Recall from Table 6.3 that with just one statewide call-answering center, someone has to be there at night to answer just a few calls. With six regional centers, six people must be employed at night with each occupied only a small amount of the time.

**Six Regional Call-Answering Centers with Five Open Weekdays and the Sixth Open 24 Hours a Day**

The next set of tables shows the results of cost estimation when there are six statewide, call-answering centers with five open weekdays from 8am to 8pm and the sixth open 24 hours a day, seven days a week. Table 6.7 shows total usage and present discounted costs for the various initial usage and growth rates. When total usage over the five-year period is 403,746 calls, the present discounted value of costs to operate the system over that period is \$8.4 million. When total usage over the five-year period is 983,504 calls, the present discounted value of costs to operate the system over that period is \$10.4 million.

Table 6.7 Usage and Costs for Six Regional Call-Answering Centers With Five Open Weekdays and One Open 24/7 Various Initial Calls and Growth Rates				
		Percentage Increase in Calls Over Five Years		
		25%	50%	100%
<b>72,000 Initial Calls</b>				
(1)	Total Number of Calls Over Five Years:	403,746	445,452	524,535
(2)	Present Discounted Value of Total Cost Over Five Years:	\$8,400,526	\$8,469,238	\$8,722,365
<b>103,500 Initial Calls</b>				
(1)	Total Number of Calls Over Five Years:	580,385	640,337	754,020
(2)	Present Discounted Value of Total Cost Over Five Years:	\$8,850,483	\$9,096,281	\$9,506,442
<b>135,000 Initial Calls</b>				
(3)	Total Number of Calls Over Five Years:	757,024	835,222	983,504
(4)	Present Discounted Value of Total Cost Over Five Years:	\$9,542,631	\$9,847,196	\$10,360,300

Table 6.8 compares the costs of six regional call-answering centers open 24/7 to six centers with five open weekdays and the sixth open 24/7. The table assumes usage in the first year equal to 103,500 calls and that usage grows by 50% over the five-year period. The first column shows costs for six regional call-answering centers open 24/7. The second column shows costs for six centers with five open weekdays and the sixth open 24/7. The third column shows the percentage difference between the first two columns.

Table 6.8 Comparison of Usage Sensitive and Non-Usage Sensitive Costs For Six Regional Call-Answering Centers Open 24/7 versus Six Centers with Five Open Weekdays and the Sixth Open 24/7			
	Six Centers Open 24/7	Five Centers Open Weekdays and the Sixth Open 24/7	Percent Difference
<b>Total Calls:</b>	<b>640,337</b>	<b>640,337</b>	
Physical Facility:	\$1,473,594	\$1,043,389	-29%
Data Management:	\$843,737	\$843,737	0%
Administrative:	\$3,895,480	\$2,966,337	-24%
Start-up:	\$594,660	\$534,167	-10%
<b>Non-Usage Sensitive Costs:</b>	<b>\$6,807,472</b>	<b>\$5,387,629</b>	<b>-21%</b>
Telephone:	\$403,413	\$441,309	9%
I&R Labor:	\$5,206,236	\$3,267,343	-37%
<b>Usage Sensitive Costs:</b>	<b>\$5,609,650</b>	<b>\$3,708,652</b>	<b>-34%</b>
<b>Total Cost:</b>	<b>\$12,417,122</b>	<b>\$9,096,281</b>	<b>-27%</b>

Costs are 27% lower with the after hours center than they are with six centers open at nights and on weekends. Facility costs are lower because there is only one facility open at night and on weekends. Administrative costs are lower because there is no need to have an administrator at each of six facilities at night and on weekends. Telephone costs are 9% higher because more calls at night and on weekend will be long distance since five of the regional centers are closed at that time. Labor costs are much lower. There can be significant consolidation of calling at night and on weekends. During those periods only one person is needed rather than six.

**Summary**

The present discounted value of costs associated with maintaining a single number system under all scenarios is summarized in the Table 6.9. Using one statewide center is the most cost effective alternative. If regional centers are established, then more than \$3 million can be saved by consolidating after hours operations in one of the regional centers. In any case, to provide service over a five-year period, the system will cost over \$5 million.

		One Statewide Center Open 24/7	Six Regional Centers Open 24/7	Five Regional Centers Open Weekdays and a Sixth Open 24/7
Initial Usage	Usage Growth Rate			
72,000 Calls				
	25%	\$5,251,967	\$11,814,876	\$8,400,526
	50%	\$5,407,033	\$11,881,163	\$8,469,238
	100%	\$5,676,957	\$12,085,105	\$8,722,365
103,500 Calls				
	25%	\$5,884,127	\$12,167,541	\$8,850,483
	50%	\$6,168,646	\$12,417,122	\$9,096,281
	100%	\$6,610,323	\$12,818,773	\$9,506,442
135,000 Calls				
	25%	\$6,702,735	\$12,835,727	\$9,542,631
	50%	\$6,959,712	\$12,140,750	\$9,847,196
	100%	\$7,724,591	\$13,630,529	\$10,360,300

**Relative Costs by Year**

The previous table shows estimates of the present discounted value of costs for operating a single number I&R system over five years under three alternate scenarios and a variety of usage assumptions. Total costs vary significantly across scenarios and for different initial usage and growth rates. The lowest cost is \$5.2 million. The highest is \$13.6 million.

It is also interesting to look at the distribution of costs across the years for any one scenario. Table 6.10 shows the relative cost in each year for the scenario with one statewide call answering center when the center receives 103,500 calls in the first year and usage grows by 50% over five years. Twenty-two percent of costs are incurred in the first year. This includes the initial setup costs and operating costs in the first year. Eighteen to twenty-one percent of costs are incurred in each of the following years. The relative share increases slightly each year as usage grows. Interestingly, the percentages are similar for other usage levels and the two other scenarios. First year costs range between 20% and 24% of five-year costs. Second year costs are 17% to 19% of the total. The share rises to 21% to 23% by the fifth year.

Year	1	2	3	4	5
Percentage of Costs	22%	18%	19%	19%	21%

**Suggestions that May Influence Costs**

Reducing Administrative Costs

The preceding results use single number I&R systems with two-level call answering triage and significant administrative oversight. If these constraints were reduced somewhat costs could be reduced. Consider administrative costs. Table 6.10 shows the number of center administrators

and administrative costs under the three initial scenarios discussed above. The first row shows that the scenario with one statewide call answering center open 24/7 has four administrators associated with the center. The scenario with six regional call answering centers has three administrators at each center for a total of 18. The scenario with five regional centers open weekdays and a sixth open 24/7 has the equivalent of 1.9 administrators at each of the five centers and 3.9 at the 24/7 center for a total of 13.4. The second row of Table 6.11 shows the administrative costs associated with each scenario. These costs range from a little over one million dollars to almost four million dollars.

Table 6.11			
Cost of Administration			
	One Statewide Call Answering Center	Six Regional Call Answering Centers	Five Regional Centers open Weekdays and a Sixth Open 24/7
<b>Initial Scenario</b>			
(1) Number of Administrators	4	18	13.4
(2) Administrative Cost	\$1,067,000	\$3,895,000	\$2,966,000
<b>Scenario with only One Administrator per Center</b>			
(3) Number of Administrators	1	6	6
(4) Administrative Cost	\$462,000	\$1,471,000	\$1,471,000
<b>(5) Cost Saving</b>	\$605,000	\$2,424,000	\$1,495,000

Suppose administration were reduced so that there was just one administrator at each call-answering center. The third and fourth rows of Table 6.11 show the number of center administrators and the costs under this alternative. The fifth row shows the resulting cost savings. Savings range from \$605,000 to \$2,424,000.

Eliminating Late Night Two-Level Triage

All three scenarios have the Level II IRS located at one location. In the six regional center example, Level I IRS are at each regional center 24 hours a day, seven days a week. All of the Level II IRS, however, are located in only one center. Level II calls from anywhere in the state are forwarded to that center.

At night, when usage is low, the Level II IRS are not busy. Consider the assumptions that generate the most calls. Suppose the system starts with 135,000 calls and usage grows by 100%. In the fifth year, only one Level II specialist is needed. On weekday nights that specialist is busy on 18% of the time, or about 11 minutes an hour. On weekends the Level II specialist is busy only four minutes an hour. If the Level II specialist were removed at night, it would save about \$825,000 over the five year period.

Removing the night Level II specialist may not significantly degrade the quality of the system. The single number system is not designed as a crisis hotline. If I&R calls come in late at night that can not be answered by a Level I IRS, the caller can be directed to call back during daytime hours. If a crisis call does come in, it can be either referred or transferred to a crisis hotline.

Actual Versus Estimated Parameters

Several parameter estimates were used to calculate costs. We are confident that many of these parameters, such as hourly wages and benefits for IRS, are accurate. Other parameters, however, are more speculative. Long distance costs make up a significant part of the total cost of running the system. Ultimately, however, these rates will have to be negotiated with long distance vendors. If better rate can be negotiated, and this may be possible in an era of increasing competition, costs will go down. The calculations also assume that physical equipment such as building, desks, computers, etc. will have to be purchased. To the extent that existing equipment can be used for these purposes, costs will go down as well.

## VII. BENEFITS

### Introduction

A 211 system in Nebraska can be expected to benefit several groups including individual citizens who need human services; their employers; providers of human services; and those who plan for and pay for human services in Nebraska. Some of these benefits can be estimated in dollar terms. Whenever possible, we have attempted to estimate the magnitude of these benefits so that they may be compared with the estimated costs given in the previous chapter. However, many very important benefits are difficult to quantify, either because they cannot be measured in dollar terms (for example, reducing citizen frustration) or because the potential benefit requires other interconnected human service components and cannot be attributed to the 211 system alone. As an example of the latter, if respite care were more available to support home care givers, some individuals could avoid high priced institutional placements -- an important benefit. However, although a 211 system would increase access to respite care, benefit can only be realized if there is adequate development of respite care resources across the state.

The decision to develop a 211 system should consider the benefits that can be expected but not precisely measured as well as the benefits that can be estimated in dollar terms. This chapter includes a discussion of these intangible benefits and an estimate of measurable benefits for each affected group. A summary estimate of the overall measurable benefits is given at the end of the chapter. The methods used to estimate measurable benefits are presented in Appendix I.

### Benefits For Individual Citizens

With good intentions, we have developed an incredibly complex system of human services. This system includes a wide variety of programs organized and funded by a complicated mix of government programs (federal, state, county, and community), along with private non-profit agencies and for-profit organizations at the national, state, and local level. Separate funding streams often require separate eligibility restrictions making it difficult to find the appropriate services for a given individual. Even those who work as providers in the system have difficulty understanding what services are available and how to access services outside of their narrow area of specialty. For individual citizens, it can be and is often overwhelming. Nearly every citizen has faced, with more or less exasperation, the question, "Where do I start?" After an initial entry point into the system is identified, the frustrations often do not end. Individuals are frequently shuffled from agency to agency, first by phone and then in person, before they find the services they need. A 211 system will provide a rational entry point into the system along with a trained and caring helper. Individuals can expect many measurable and intangible benefits from such a system.

### Reducing Citizen Frustration

An especially important potential benefit is the reduction in the level of frustration felt by individuals trying to use this complex human service system. It is impossible to put a dollar value to eliminating this frustration. More than just a nuisance, this frustration can itself lead to a greater need for public services as those who have been caught in the system without finding an appropriate service can testify. Frustration with our human service system also erodes confidence in government and reduces public support for needed services and for the system as a whole.

### Time Saved in Locating Services

The existence of a statewide 211 system will save individuals time when they try to gain access to human services. Less effort will be needed to acquire the desired information and less effort will be spent pursuing avenues that turn into dead ends. As an example of this type of savings, a single mother who has been working the day shift for her employer may be asked to work evenings. The day care provider for her child may be only open until six in the evening and family members may not be available to care for the child. This individual might spend a

significant amount of time trying to find providers. Calling the Nebraska 211 system for a more direct answer to her dilemma would save her time. Because both the time individuals save accessing human services, and the value of this time, can be estimated, an estimate of this benefit can be made in dollar terms. This is included in the estimates given in Tables 7.1 and 7.2.

#### Reducing The Ultimate Cost of Services

Besides being frustrating and time consuming, delays in finding an appropriate service are costly for the individual. It is widely recognized that early appropriate intervention is more cost-effective than delayed services for most problems. For example, women in abusive situations may delay seeking help if they do not know where to call. The lack of information may also lead individuals to use services that are not appropriate for their problems. This may also cause unnecessary delays and increased costs for the individual. There are few tools available for estimating this benefit in dollar terms.

#### Avoiding Expensive Alternatives

The lack of awareness of services may lead to expensive care alternatives. Last year the Nebraska Legislature recognized that respite care services can reduce the risk of abuse and neglect and the reliance on expensive and unnecessary out-of-home placement options for vulnerable populations. Similarly, it has long been recognized that early intervention for children with disabilities is extremely important to help children maximize their potential and to avoid many more expensive health and educational services. As a result Nebraska developed an Early Intervention program to provide services coordination to these children and their families. Another example is nursing home care costs. Care in a nursing home is significantly more expensive than care in assisted living facilities, or remaining at home with home-health services. A statewide 211 system would improve the possibility that potential clients will learn about these types less expensive, appropriate services and access them earlier, thus avoiding more expensive, or even inappropriate, service interventions later.

Although it is difficult to quantify many of these benefits, part of this avoidance can be estimated in dollar terms. For the purposes of estimating benefits of a 211 system, the avoidance of nursing home care was selected because of the ability to determine concrete comparative figures between nursing home and assisted living costs. It is estimated that 4000 individuals in nursing homes in Nebraska could be cared for in less expensive settings. For example, if only 1% of these 4000 persons were diverted from nursing home care because of a 211 system, the benefit would be substantial.

#### **Benefits For Employers**

Employers will also realize a benefit from a 211 system, part of which can be estimated in dollar terms. When employees gain access to appropriate services more quickly, they should realize improved workplace productivity and reduced absenteeism. More appropriate referrals should result in a quicker resolution of problems and quicker return to work. The I&R network can also be used by employers to refer employees for certain job-related services such as, education, training, and tax assistance. Child and elder care assistance and English language classes are other services more readily accessible through the I&R network that may also benefit employers by enhancing productivity and retention. An estimate of some of these employer benefits is included in the summary of benefits.

#### **Benefits For Providers of Human Services**

A 211 system will benefit individuals and organizations who provide human services in many different ways. Some of these benefits lend themselves to estimation in quantitative terms and are included in the summary below.

### Call Avoidance

Under our current system, human service providers get many calls for services which would more appropriately be directed to another provider. These calls cost the agency time and money and reduce the agency's ability to provide more appropriate services. A 211 system will help callers more accurately determine which agency to contact for their specific need. An estimate can be made of these misdirected telephone calls and inappropriate applications for service. This estimate is based on the cost per call, and is included in the overall estimates below.

### 911 Call Avoidance

An inappropriate call to 911 is especially costly and troubling. Calls to 911 are expensive, and inappropriate calls can reduce the emergency center's ability to respond to appropriate emergency calls. 911 call centers receive inappropriate calls because citizens may not know of anywhere else to call. Some of this benefit, for example better service for true emergency calls, can not be estimated. However, because the cost per call is known and the number of calls saved can be estimated, this benefit can be calculated and is included below.

### Avoiding Ancillary Services

Inappropriate calls to human service agencies often require agency personnel to take time (and therefore resources) to help an individual by giving information that is outside of the agency's service area. Examples include a probation officer helping a ward find employment opportunities or an employment services case-worker helping a client locate housing/rent assistance. A 211 system will reduce the number of these "ancillary services" by directing individuals more quickly to the appropriate agency. The cost of these ancillary services savings can also be estimated and is included below.

### Reducing Inappropriate Evaluations

Whenever a person calls or comes to an agency, staff time must be spent evaluating the person's needs and determining the appropriate services. When this time is spent on behalf of an individual who is inappropriate for the service, it takes away from the agency's ability to serve appropriate clients. A 211 system can direct individuals to more appropriate services, allowing the agency to serve additional individuals with the same expenditure of staff time and dollars. The savings from eliminating this type of cost is included in the summary below.

### Reducing Redundant Information and Referral Costs

The largest savings to the human service providers comes from reducing duplication in the I&R functions. As this report shows, many human service agencies in Nebraska provide overlapping I&R services. This problem is not new. As long ago as 1978 (GAO Report to Congress ) the office of the U.S. Comptroller General studied the I&R system across the country and identified several areas of potential duplication when many different agencies offer I&R on an uncoordinated bases. According to this report, the most costly of these is in the time and effort required to keep duplicate resource files complete and up to date. The GAO report concluded that this inefficiency affected both the I&R providers and the services they were trying to catalogue. For example, in Seattle, 24 different agencies maintained independent resource files and updated them at least annually. This means that each agency was called at least 24 times a year for up-to-date information. An official at one agency complained that they were "surveyed to death" as a result of these efforts. In addition, I&R agencies duplicate the staff time needed to answer I&R calls, administrative and clerical efforts supporting I&R, and publicity efforts to reach overlapping target groups. Reducing this activity has the potential to free up personnel resources for additional direct services to citizens.

Part of this benefit can be estimated. Our Nebraska survey results indicate that on average the cost per call under the existing I&R system is more expensive than the cost under a single number system. Hence current providers will realize a sizable saving in resources if calls are

diverted to a single number system. An estimate of these costs are included in the overall benefit estimate. Resources saved in this manner will allow agencies to provide direct service to more individuals and more completely serve their core mission.

### **Benefits for Planners and Funders**

#### Reducing Requests For Specialized I&R

Currently, many constituencies feel the need for more organized information and referral to help them deal with our complex human service system. As a result, legislators are faced with many requests to fund information and referral. For example, this year the Nebraska legislature has been asked to consider supporting services for individuals with brain injury (LB 1225). Included in this \$750,000 measure are funds to establish a help line to assist individuals with brain injury to contact appropriate agencies and resources and to fund a comprehensive survey of current programs available.

Similarly, LB 480 in the current session, the Women's Health Initiative, strives to "improve the health of women in Nebraska by fostering the development of a comprehensive system of coordinated services, policy development, advocacy, and education." The initiative attempts to develop a "clearinghouse for information regarding women's health issues, including pregnancy, breast and cervical cancers, acquired immunodeficiency syndrome, osteoporosis, menopause, heart disease, smoking, and mental health issues as well as other issues that impact women's health, including substance abuse, domestic violence, teenage pregnancy, sexual assault, adequacy of health insurance, access to primary and preventative health care, and rural and ethnic disparities in health outcomes". Arriving at this comprehensive system of coordinated care will involve establishing additional I&R services for this population.

Last year LB 148 established the Nebraska Lifespan Respite Services Program which calls for establishment of "a single local source for respite service information and referral." This system is being developed with data and equipment standards and an organizational plan that will integrate regional respite care data into a single non-duplicated statewide database. Because of the increased attention to standards and statewide integration, this system may serve as a model for an eventual comprehensive statewide I&R database.

Given the many individual constituencies facing a need for better Information and Referral services, the legislature is likely to receive similar requests in the future. These specialized I&R needs could be more effectively and efficiently met by the establishment of a single coordinated information and referral system such as a 211 system.

#### Information About Service Coverage and Need

A state-wide 211 system would also provide valuable information to legislators and administrators about the human service system, about gaps in this system and about the needs felt by the population. The integrated state-wide database of human services would provide an accurate and up to date picture of what services are currently available and what services are missing in any given geographic region. When proposals are made to fund additional services, accurate and timely information would be available about service gaps. As the system becomes more widely used by citizens in all parts of the state, the pattern of calls to the 211 system would also tell legislators and administrators what services are most requested in each area of the state, and which of these needs were hardest to meet with currently available services. This information would allow legislators and administrators to more effectively plan services to meet the needs of citizens.

### **Estimate of Aggregate Measurable Benefits**

A description of aggregate benefits, then, can be broken into four categories, some elements

being quantifiable and other elements being non-quantifiable. Table 7.1 displays the benefits and the percent of the total quantifiable benefit attributed to that source assuming an initial usage of 72,000 calls which grows by 25% over five years. Each estimated benefit is presented as the present discounted value of the dollar benefit derived over five years. A discounted value is the value *today* of benefits which will be realized in the future. In Table 7.1, the reduction of redundant I&R cost is the largest benefit. In this example, the benefit is \$3.6 million or 47.2% of the total benefit. The next largest benefit is avoidance of nursing homes costs from moving 1% of the patients who could be cared for in less restrictive settings into assisted living. This is a conservative estimate. The benefits in Nursing Home Avoidance would be even greater if costs savings also included a percentage of avoidance of nursing home costs who could be cared for at home with supportive services.

The assumptions used to arrive at these estimates are given in Appendix I. These assumptions affect the final estimate of benefit. For example, we have estimated that 25% of all calls will result in an individual saving in time worth approximately \$9.27. Aggregating this saving across all calls results in a total “time saved” benefit to individuals of approximately \$912,000. If a lower percentage of calls received this saving (or it is estimated that a lower percentage of persons will receive this saving), then the aggregate benefit to individuals would fall. For example, if only 22.5% rather than 25% of all calls resulted in time savings to individuals, the total benefit to individuals would be 10% less, or approximately \$821,000. The same type of adjustment can be made to all other benefit categories as well. We have used estimates that we believe are both reasonable and conservative in order to present an idea of the magnitude of the overall quantifiable benefits. These can be considered a minimal estimate of the overall benefit because of the many benefits which can be expected but which are difficult to quantify.

Table 7.1		
Benefit by Category		
Category	Approximate Benefit	Approximate Percent of Total Quantifiable Benefit
<b>Individuals</b>		
Reduced Frustration	<i>not quantified</i>	--
Time Saved in Locating Services	\$912,000	12.0%
Reducing Ultimate Cost Of Services	<i>not quantified</i>	--
Avoiding Expensive Alternatives	<i>partially quantified (see next row)</i>	--
Nursing Home Avoidance	\$1,281,000	16.8
<b>Employers</b>	\$39,000	0.5
<b>Providers</b>		
Call Avoidance	\$990,000	13
911 Call Avoidance	\$221,000	2.9
Avoiding Ancillary Services	\$197,000	2.6
Reducing Inappropriate Evaluations	\$170,000	2.2
Reducing Redundant I&R Costs	\$3,599,000	47.2
<b>Planners and Funders</b>		
Reducing Requests for Specialized I&R	<i>not quantified</i>	--
Information about Service Coverage and Need	<i>not quantified</i>	--

Table 7.2 shows how the estimate of the measurable portion of the benefit varies with different assumptions about initial usage and the growth rates over time. The present discounted value of the measurable benefit derived from a single number I&R system ranges from approximately \$7.6 million to approximately \$16.5 million. Benefits are calculated as a dollar amount per call. This has two important implications. First, the greater the usage (or the more calls there are), the greater the total benefit. Second, for any given total usage, benefits remain the same under all

three scenarios. When initial usage is 72,000 and that usage grows by 25%, total benefit is \$7.6 million under any of the three scenarios. Again this occurs because there is a dollar benefit per call and that dollar benefit is the same under all three scenarios. Hence the total benefit for a certain number of calls is the same regardless of the type of I&R system used to answer those calls.

		One Statewide Center Open 24/7	Six Regional Centers Open 24/7	Five Regional Centers Open Weekdays and a Sixth Open 24/7
Initial Usage	Usage Growth Rate			
72,000 Calls				
	25%	\$7,622,000	\$7,622,000	\$7,622,000
	50%	\$8,253,000	\$8,253,000	\$8,253,000
	100%	\$9,446,000	\$9,446,000	\$9,446,000
103,500 Calls				
	25%	\$10,343,000	\$10,343,000	\$10,343,000
	50%	\$11,249,000	\$11,250,000	\$11,249,000
	100%	\$12,965,000	\$12,965,000	\$12,965,000
135,000 Calls				
	25%	\$13,064,000	\$13,064,000	\$13,064,000
	50%	\$14,246,000	\$14,246,000	\$14,246,000
	100%	\$16,484,000	\$16,484,000	\$16,484,000

**Summary**

Many important benefits can be expected from instituting a state-wide 211 system, some of which can be estimated in dollar terms. These benefits will be experienced by individual citizens as they more effectively find their way through the human service system; by employers who will experience a healthier and more available workforce; by providers who will be able to stretch limited human service dollars to provide service to more (and more appropriate) clients; and by legislators, and others who plan for and pay for human services as they gain a better view of both the system and the needs of citizens, and avoid piecemeal solutions to the I&R need. A comparison between Tables 7.2 and 6.9 show that the estimated measurable benefits are in the same broad range as the estimated costs. The unmeasurable benefits represent additional benefits to citizens and the human service system from developing a comprehensive 211 system. This

does not mean, however, that a 211 system could be developed without costs. Most of the benefits could not be captured and spent on a new system. Most would however, be available in the human service system, and would allow the current system to serve more needs more effectively.

## VIII. CONCLUSION AND RECOMMENDATIONS

### Conclusions

#### Current Nebraska I&R Services Represent A Significant Investment and Effort

Nebraska currently has a multitude of I&R services providing information to Nebraskans about various services and resources. As part of the survey that was conducted for this project, over 800 agencies across Nebraska were contacted and asked about their I&R activities. Two hundred and seventy-six agencies replied they were involved in I&R efforts. Of this number, 193 agencies provided specific, I&R information. Because two agencies indicated they received so few I&R calls, they were omitted from analyses. Thus, usable data were obtained from 191 agencies from across Nebraska, and approximately 80% of these agencies provided annual call volume information. Their responses indicated *there are over 900,000 I&R calls annually*. When asked to estimate paid staff hours devoted to providing I&R services, almost 2/3 of the agencies responded, and their estimates suggest there is the equivalent of *161 FTE staff time devoted to providing services in Nebraska*. In answer to the request for annual cost information to support I&R services, the respondents *reported they spend well over \$4 million annually*. Because expenditure data were received from only 30% of the 191 organizations, it is safe to assume the actual dollars spent on I&R services is considerably greater.

#### The Current I&R Delivery System Varies in Accessibility, Data Availability, Accreditation, and I&R Specialist Responsibilities

Accessibility. Nebraska's current I&R services provide varying levels of accessibility to callers. Only 37% of the responding I&Rs indicated they provide toll-free access, and only 28% offer TDD/TTY services. Seventy-five percent operate only Monday through Friday, with 81% available only during working hours.

Databases. Organizations use varying methods of organizing I&R data. Seventy-four percent of responding organizations actively seek information to provide I&R services. Most organizations have approximately 100 resources (the modal response) available in their databases. Only 21% use a computer database and only 4% (7 organizations) use the AIRS taxonomy.

Accreditation and Staffing. No Nebraska I&Rs are accredited through AIRS, and only five persons in Nebraska are certified through AIRS. Ninety-three percent of organizations ask their I&R specialists to perform duties in addition to fielding I&R calls, with the most frequent additional responsibility being clerical/support staff work. Training of staff varies dramatically from no training to comprehensive orientations and on-the-job training programs (see Appendix H, Question 37).

#### Feasibility of 211 System

The experiences of other states and municipalities are persuasive in illustrating the feasibility of developing and maintaining a 211 or other coordinated I&R service system. Existing 211 systems (the greater Atlanta, Georgia area; the greater Columbus, Georgia area; and the state of Connecticut) have created three-digit dialing systems free to callers, developed coordinated databases, experienced increased call volumes to their I&Rs, and evaluated calls to identify gaps and duplications in services. Other statewide I&Rs, who have not yet received 211 designation, have through coordination reduced duplication of I&R responsibilities through alliances, standardized taxonomies, and designated call centers. Throughout the nation, funding for coordinated I&Rs has been identified through public and private collaborations, and through collaborative relationships with publicly-funded programs that carry federal and state mandates to provide information and referral.

### Positive Quantifiable Benefits Are Projected for a 211 System

A single number system can provide a positive net benefit. The size of that net benefit depends on usage, the design of the system, and the underlying administrative structure. The largest net benefit comes from a system with one statewide, call-answering center open 24 hours a day, seven days a week. The measurable benefit of such a system outweighs the cost under all usage assumptions. The more people who use the system, the greater the net benefit of the system. The results are not so clear-cut when there are six regional centers or six regional centers and one after-hours center. Whether the net benefit is positive or negative depends critically on usage and the administrative structure of the system. We have not measured all of the benefits and costs associated with a single number system. Some of the benefits can not be measured in dollar terms. If we were able to put a dollar value on these benefits, the total benefit, and, consequently, the net benefit, of a single number system would increase.

## **Recommendations**

### **1. A call center serving one or more regions of the state should be piloted.**

Given the feasibility and the advisability of a statewide, coordinated I&R system, a pilot project should be developed to create a call center for one or more regions of the state. In order to capitalize on existing knowledge and infrastructure, the pilot project should be developed by those already active in I&R services: that is, current I&R providers; the state agencies that plan, regulate, and pay for human services; and other important groups. This group should begin with the existing NE211 Coalition. The NE211 Coalition, therefore, should be expanded to include a wider representation from I&R services from all parts of the state, and should add representation from other groups and from additional areas of the Nebraska Health and Human Service System. No matter how efficient and effective a new system of information and referral might be, it will not be viable unless it is perceived by the current I&R participants to be the logical extension of their current efforts.

The pilot project should be supported by a well-developed database and an adequate number of well-trained information and referral specialists. There should be careful consideration to specialists' job descriptions, minimum educational or professional attainment, salaries, training, on-going monitoring and development, and possible AIRS certification. The benefits of cross-training and information sharing with other systems (e.g., with 911 as in Atlanta) should be investigated.

A pilot project will enable planners to ensure the same kinds of positive outcomes that are enjoyed by other 211 systems will be experienced in Nebraska. The pilot also will allow an initial evaluation of Nebraska's 211 system, its efficacy, its administration, and other system components.

### **2. The pilot, if successful, should be expanded to a statewide system.**

Assuming successful implementation of the pilot, the system should then be expanded to a statewide I&R. Lessons learned from the pilot project should be incorporated. Decisions about the structure of a statewide system should be made in light of the competing advantages versus disadvantages of a single call center as opposed to multiple call centers. The expansion to a statewide system should, again, include current I&R providers; the state agencies that plan, regulate, and pay for human services; and other important groups. Again, care must be taken to ensure adequate and full representation from among the many current stakeholder groups.

A statewide I&R will require the creation of a telephone system that allows a 211 number dialed from anywhere in the state to be connected to the appropriate information and referral specialist.

A toll-free 800 number or a series of regional numbers could connect callers to these specialists even if the three-digit, 211 system is not in place. Reserving a statewide 211 system in Nebraska will require a regulatory decision, and the cooperation of independent phone companies. Both steps will require broad public support.

In order to provide statewide I&R service, a complete, accurate, accessible and efficient database of human services should be developed. Organizations that are currently providing large I&R databases in Nebraska should be encouraged to come into compliance with AIRS standards, including the use of the AIRS/INFO LINE taxonomy. These organizations should move towards use of a well-accepted I&R software package such as IRis or Refer99. Any new I&R database should be designed to facilitate an eventual transition to an integrated, statewide I&R system. The current planning for a respite care network database demonstrates this type of planning by assuring data management standards and by planning for the statewide integration of regional systems into a single, non-duplicated database. This effort may form a prototype and model for building a more comprehensive statewide database.

A data taskforce should be formed to develop a database management plan for Nebraska which will make maximum use of current resources and which will strictly apply the "one data manager per resource" principle. This taskforce should explore ways to integrate current databases and should develop consensus around one of two plans: 1) a centralized database management concept with provisions for effectively connecting to current I&R efforts and to resources at the community level, or 2) a regional database management concept with provisions for effectively standardizing coding, resource identification, and resource updating between the regions.

As a statewide system is developed additional, trained staff must be recruited and trained. A plan for marketing and promotion should be developed. Telephone technology that should be explored includes telephone systems for training and monitoring calls, caller location identification systems, voice messaging, and Interactive Voice Response that provide automated referrals during peak call volume periods (with caller option to wait for a referral agent). Other technologies that should be investigated include extensive use of websites, and database passwording systems that enable resources to update their own information.

### **3. A plan for evaluation should be developed and implemented for continuous monitoring of and improvement to any I&R system Nebraska decides to adopt.**

A plan for on-going evaluation of the system should be developed in order to determine acceptable levels of service and to identify strengths and weaknesses needing intervention. Both the process evaluations and the outcome evaluations should be used.

Process evaluations should incorporate tracking of such indicators as call volumes, call durations, caller needs, call abandonment rates, caller wait times, database growth, database accuracy, unmet caller needs, staff turnover, and so on. Standards, or goals, for these evaluation measures should be determined. As these process outcomes are monitored, interventions should be implemented when outcomes fall short of expectations.

Outcome evaluations should assess the ultimate effect of the of the I&R service. Outcomes should be designed and administered to determine, for example, caller and agency interaction with the 211 system. Some I&Rs contact a percentage of previous callers to determine whether the caller followed up on referrals, whether the referral was appropriate and led to services, and so on. Agencies may be asked questions about the appropriateness of 211 referrals to their organization, the reduction of inappropriate calls to their organization, and their organization's experience with contacting 211 and receiving appropriate referrals for clients.

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