

TAPPING THE 211 INFORMATION GOLDMINE

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FIGURE 1: ILLUSTRATIVE 211 DATA AVAILABLE TO SUPPORT HUMAN SERVICES MANAGEMENT

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FIGURE 1: ILLUSTRATIVE 211 DATA AVAILABLE TO SUPPORT HUMAN SERVICES MANAGEMENT

TAPPING THE 211 INFORMATION GOLDMINE

1. BACKGROUND

Human services organizations – whether government, non-profit or private – are increasingly expected to demonstrate accountability to their constituencies regarding the effectiveness and efficiency of their services.

In the course of their normal operations, 211 organizations collect voluminous¹, varied and unique data which could help human service managers and planners to increase their effectiveness and efficiency. Over the past few years there has been some discussion of these matters in the broader 211 community.² Examples of using 211 data for broader human services planning are emerging in Toronto and elsewhere. However, these initiatives have only scratched the surface of what is possible. The anticipated growth of 211 users and services will make available even further such information in the future.

Ontario 211 is now planning the development of a province-wide system for delivering 211 services. If the decision is to enhance how 211 organizations support broader human services management, careful planning and integration with core 211 services will be required.

It is, therefore, timely to consider if and how Ontario 211 activities might contribute to broader human services sector management and key considerations for implementation.

¹ To illustrate, Findhelp Information Services collects data on 2,500 human service providers and 20,000 programs in the Metro Toronto area, and, with minimal promotion, in 2005 received over 400,000 telephone calls and 670,000 web visitors. A well-promoted Ontario-wide 211 system, would serve the needs of *and provide data on approximately* 15,000 service providers, 60,000 programs and millions of annual information and referral requests.

² For example, in 2003, the then Community Information Toronto proposed a social research grant to the United Ways of Toronto called “211 Social Reports: The Role of Community Services Data in the Broader Social Infrastructure”

FIGURE 1: ILLUSTRATIVE 211 DATA AVAILABLE TO SUPPORT HUMAN SERVICES MANAGEMENT

2. GOAL OF STUDY

Ontario 211 has commissioned this study with the goal of identifying possibilities, challenges and next steps for using information collected by 211 organizations to support and enhance human services planning and management in Ontario.³⁴

This study is targeted to those responsible for implementing Ontario 211 systems, including current or planned province-wide and local 211 initiatives. It also is intended to be helpful to the broader human services public, non-profit and private sector, all of which have a deep stake in ensuring that 211 data is effectively utilized to improve the effectiveness and efficiency of service delivery and enhance the lives of all Ontarians.

3. ORGANIZATION OF REPORT

Section 4 describes the approach taken to this study. Section 5 describes current data collection sources and information available. Section 6 highlights examples of emerging use of the data in North America and perceptions of potential use gathered from study respondents.

Section 7 sets out a vision for how 211 can support human services planning and management, key benefits and target groups. Section 8 proposes guiding principles. Section 9 sets out key elements of an implementation strategy. Section 10 identifies future challenges and opportunities. Section 11 sets out recommended next steps.

4. STUDY APPROACH

Key activities included:

³ This report assumes the reader is familiar with the 211 landscape and services.

⁴ This report is focused on utilization of 211 data to support the human services sector. It should be noted that there are other ways in which the 211 system could expand its support to the human services sector, for instance through providing additional decision-support for those seeking or providing human services. This could take the form of online resources and tips for self-assessment and selecting and using human services. Feedback on services could be systematically forwarded to appropriate agencies. As well, Ontario 211 could make available to agencies and the public a searchable, online database of RSS feeds (typically information produced by media and blogs) related to provider organizations and selected topics.

FIGURE 1: ILLUSTRATIVE 211 DATA AVAILABLE TO SUPPORT HUMAN SERVICES MANAGEMENT

- Review of documents and interview of personnel of 211 organizations regarding current and potential approaches to supporting human services management. Interviews were conducted with senior representatives of the current 211 Ontario, other Canadian, and leading USA 211 service providers. An online survey received responses from twelve USA State and local providers.
- Obtained perspectives of selective Ontario experts and representatives from non-profit and government human service organizations as to the merits and viability of this new role for 211 organizations
- Examined the leading edge approach taken in Toronto by Findhelp Information Services (Findhelp) and the City of Toronto, including the integrated mapping of 211 service provider and Statistics Canada population data to highlight human service gaps
- Developed a framework to facilitate the identification of benefits, and implementation requirements

Specific sources that were consulted are listed in Appendix 1.

5. 211 DATA SOURCES

Standard business processes for delivering 211 services generate a great deal of data which can be used to support more effective human services management. These processes also can be customized, providing further information which can be used to enhance human service management. Standard, customized and potential new and expanded data sources relevant to human services planning are summarized in Figure 1.

5.1 STANDARDIZED DATA COLLECTION

Consistent with the field, Ontario 211 agencies are likely to carry out the following core data collection processes:

- *Maintenance of a human service provider Directory* – providing such information as location, programs and services, access (e.g., language, hours, physical access, eligibility), senior personnel
- *Implementation of automated call management, real time quality assurance caller surveys, periodic follow-up calls and case studies in respect to telephone callers* – providing such information as date and length of call, gender, age, source of income, source of referral, reason for calling, referral

FIGURE 1: ILLUSTRATIVE 211 DATA AVAILABLE TO SUPPORT HUMAN SERVICES MANAGEMENT

made, source of income, satisfaction with 211, effectiveness of referral, unmet needs⁵, user perceptions of services

- *Tracking of Internet users* – providing such information as page views, average length of visit, type of searches, search results, unmet needs⁶ and enquiries
- Capturing *stakeholder feedback* on the 211 system and its users through periodic evaluation, agency visits, daily interaction and training sessions

5.2 CUSTOMIZED DATA COLLECTION

Valuable information also can be gathered by customizing each of the standard processes to address specialized questions requested by 3rd parties, for example:

- Supplementary provider information can be gathered such as hostel vacancies, program details or number of employees, number of volunteer
- Additional questions can be posed to 211 telephone callers, either randomly or geared to specific caller characteristics – e.g., reason for calling, location, age, primary language. These questions can be asked in real-time or in a follow-up call.
- Other potential sources of insight include facilitation of Information and Referral Specialists' reflections and observations of caller patterns, and the multidisciplinary review of case write-ups and audio records.
- Pop-up surveys geared to search context can be conducted of Internet users along with an analysis of free form text searches, and solicitation of feedback.
- Stakeholders can be surveyed as to their perceptions of the human service referral system, including gaps for particular services or target groups

⁵ These are phone call requests for assistance for which a recommended referral cannot be provided.

⁶ These are Internet search requests which do not result in a resource listing.

FIGURE 1: ILLUSTRATIVE 211 DATA AVAILABLE TO SUPPORT HUMAN SERVICES MANAGEMENT

Data Source	Illustrative data which are or can be readily collected (Based on Findhelp experience)												
<p>Service provider characteristics</p> <p>-Comprehensive survey of providers (not all data are made public)</p>	<p><i>STANDARD</i></p> <table border="0"> <tr> <td>Phone, fax, email, web</td> <td>Address, intersection</td> <td>Area served</td> </tr> <tr> <td>Hours of service</td> <td>Language of service</td> <td>How to apply</td> </tr> <tr> <td>Physical access</td> <td>Fees</td> <td>Last updated</td> </tr> <tr> <td>Services offered</td> <td>Organization type</td> <td>Sr. personnel contact info</td> </tr> </table> <p><i>EXPANDED/CUSTOMIZED</i></p> <p>Additional information for all or subsets of providers, e.g., real time hostel vacancies, program details</p>	Phone, fax, email, web	Address, intersection	Area served	Hours of service	Language of service	How to apply	Physical access	Fees	Last updated	Services offered	Organization type	Sr. personnel contact info
Phone, fax, email, web	Address, intersection	Area served											
Hours of service	Language of service	How to apply											
Physical access	Fees	Last updated											
Services offered	Organization type	Sr. personnel contact info											
<p>Telephone User characteristics</p> <p>-Automated call management</p> <p>-Real time Call tracking</p> <p>-Call follow-up</p> <p>-Caller surveys</p> <p>-Call Logs</p> <p>-Case studies</p> <p>-Facilitated reflections of call operators</p> <p>-Audio recordings</p>	<p><i>STANDARD</i></p> <p>Call management – e.g., date, length, abandonment, wait time</p> <p>Real time call tracking – e.g., gender, info vs. referral, advocacy/endangerment status, reason for call, referral made, unmet needs</p> <p>Caller Surveys– e.g., how caller found out about 211, age (limited ranges), self/other referral, postal code, number dialed, prior contact with service, # of people in household, first language, source of income, satisfaction with 211</p> <p>Call follow-up –e.g., results, satisfaction, additional needs</p> <p>Case studies – e.g., 5-1 page write-ups of select, cases, typically reflecting complexity of issues</p> <p><i>NEW/CUSTOMIZED</i></p> <p>More persons surveyed, more randomization</p> <p>Tailored surveys geared to caller characteristics (e.g. type of need, location, age)</p> <p>More questions on user profile, e.g. use of the Internet, frequency and reasons for historical uses of 211, reasons for using 211 over other sources, socio-economic characteristics,</p> <p>Probing user perceptions of gaps – e.g., service availability, quality, access or awareness</p> <p>Refined assessment of needs/reasons for calling</p> <p>Facilitation of reflections and observations by Information & Referral Specialists</p> <p>Multidisciplinary panel review of cases and audio-recordings</p>												
<p>Internet user characteristics</p> <p>- Tracking software</p> <p>-Search results analysis</p> <p>-Feedback</p> <p>-Surveys</p> <p>-Enquiries</p>	<p><i>STANDARD</i></p> <p>Web user tracking – e.g., page views, length of visit, frequent sequences of pages visited</p> <p>Search results – e.g., type of searches, results, unmet needs</p> <p>Unsolicited feedback</p> <p>Enquiries</p> <p><i>CUSTOMIZED/EXPANDED</i></p> <p>Pop-up surveys geared to search context – e.g., ask about user’s background, history, needs, perceptions, satisfaction</p> <p>Solicited feedback or rating of providers</p> <p>Analysis of free form text</p>												
<p>Feedback from stakeholders</p> <p>-Training feedback</p> <p>-Agency visits</p> <p>-Community meetings</p> <p>-Annual evaluations</p> <p>-Surveys</p>	<p><i>STANDARD</i></p> <p>Perceptions of 211 service quality and impact on their agency; suggested improvements</p> <p><i>NEW/CUSTOMIZED</i></p> <p>Perceptions of user characteristics and profiles, e.g. information searching behaviour, use of the Internet and other online technologies (e.g. chat, IM), access problems</p> <p>Perceptions of human service system strengths and weaknesses (in their domains) with respect to service availability, quality, gaps, promotion and outreach etc.</p>												
<p>Data from other sources</p>	<p><i>NEW</i></p> <p>Local Community Information Centres (CICs), Service Canada, 811, other Information and Referral sources, Statistics Canada, municipal school board and health, other</p>												

5.3 OTHER DATA

Statistics Canada population data, in tandem with 211 data, can provide insight as to the percentage of the population across geographic areas who are using 211 services for various purposes.

Other information and referral data, for example from Community Information Centres (CICs), 311 and, ultimately, 811health access services would provide additional insights into services and population needs.

6. USING 211 DATA FOR HUMAN SERVICES MANAGEMENT

6.1 EMERGING EXPERIENCES

211 organizations are in their early stages of development and, understandably, focused on core service delivery. Both the publishing and use of 211 data to support broader human services is embryonic. Nevertheless, interest is growing and some instructive examples are emerging. For example:

- The City of Toronto combines data from the Findhelp Directory of Services with Statistics Canada population data and other information. Coded and presented through a geographical information system (GIS), the data are used to map service gaps for selected neighborhoods. 211 data are used to contribute to the review of land use applications.
- The Centre for Global eHealth Innovation is using Findhelp telephone caller data to better understand the needs of immigrants in Toronto from Spanish speaking countries in Latin America.
- The Ontario Council of Agencies Serving Immigrants used 211 data, in conjunction with LINC Assessment Centre data, to identify priorities for translation services.
- The Wisconsin 211 organization commissioned a major report that weaves 211 user information on needs and gaps with data drawn from other sources to provide a detailed portrayal of social needs in the State.
- A USA federal government department examines call data on utility needs, by location, in San Diego to target its low income, local subsidy program.

- Edmonton 211 publishes a set of unmet needs to help identify service gaps.
- The City of Los Angeles posts 211 data into a broader public, online repository of information on healthy cities, while the State of Indiana posts its 211 data, along with data from many other sources into a public, online repository on social vulnerability of different communities.
- 2-1-1 Community Resources Inc., a Florida 211 organization, was contracted by the local Food Pantry organization to help with its service and facility planning by mapping the relationship of food banks to the location of calls.

QUOTES FROM AN ONLINE SURVEY OF LEADING US 211 PROVIDERS⁷

"211 information was used as part of a university study as to where people who need various services live vs. where the services are located."

"Donors request reports on specific providers they fund in specific geographic areas or for particular subjects."

"An increase in calls for utility bill assistance and lack of community funds available resulted in a gathering of community fundraisers to add further funds for utility assistance."

"During Katrina, information was provided on the changing picture of available resources and needs back to emergency providers"

"211 calls give the community early indicators of changing needs"

"Unmet needs are used (by others) to advocate for new or missing services."

"211 helps understand the behaviour of vulnerable and homeless populations during a disaster."

"Our United Way wants to see our call volume, identified needs, new developing needs, gender, zip codes, ethnicities of users, and days and times of calls."

"After September 11, our State Department of Mental Health saw an increase in related calls. In the past researchers also correlated calls to the number of substance beds needed."

"We receive requests for number and type of calls by service categories for specific agencies (e.g., legal referrals, youth development)."

"The State asks for trend data in areas like affordable housing, use of food shelves, multilingual calls."

"Funders request specialized user data and often deeper provider data."

"Frequently, we are asked to report out data by Legislative district or by a specific target group."

"We receive a lot of requests for number and type of calls by area and service category for specific agencies or for customized subsets like all our youth programs in the Metro area. State government is interested in trend data in areas like affordable housing, use of foodshelves, multilingual calls."

⁷ To preserve confidentiality, the items have been slightly edited and any organizational reference removed.

- Chattanooga's 211 service runs a report each month showing the percent of referrals that are directed to programs focused on self-sufficiency.
- Several US agencies use 211 data to assess the impacts of storms, floods and other natural disasters and facilitate emergency preparedness.

6.2 EMERGING PERCEPTIONS

In discussions held with Ontario human service practitioners and experts, there was a general consensus that 211 data could provide useful information and insight on human service issues.

Those with the most modest interest feel they already have a great deal of information from their own specialized networks, and speculated that 211 data, though interesting and potentially useful, likely would be too general and unrepresentative of the population to normally drive their decision-making. However, all felt the information would be useful, supplementary "grist for the mill" and, especially, valuable where it could be geo-coded and mapped to communities which are not well-served by service providers.

Those who are enthusiastic – as is the author – recognize the limits of the data, but also value the unique and large volume of information, which, when integrated with other research, including specially commissioned 211 data collection, will help to inform a broad range of human service interventions.

Suggested applications of 211 data ranged from province-wide monitoring of the impact of Ontario's Local Integrated Health Network strategies on citizens' abilities to navigate the health system, to donor reviews of 211 data for all grantees as part of their allocation process, to local assessing the impact of changes in housing programs on local homeless populations.

6.3 APPLYING 211 DATA

People who use 211 services clearly experience some form of gap between their needs⁸ and available resources – whether it is time and convenience, awareness of provider options, access or the lack of available services. (See Appendix 2 for elaboration of 211 user profile).

Data on low or high levels of requests on given topics (e.g., persons needing shelter in the winter, persons who cannot find a daycare space in their neighbourhood), on their own, provide valuable information to service planners, evaluators and providers

Comparing 211 data across geographical areas, time frames and socio-economic characteristics can prompt perceptions of dissonance, raising “Why” questions about the system, and directing attention to underlying causes of gaps and differences.

These data can be further related to distribution of providers, caller characteristics and stakeholder perceptions of service gaps. Further detailed provider or caller/user information can be developed by 211 at the (paid) request of interested 3rd parties. Triangulating 211 user data with Statistics Canada and other data can also will provide further insight and information as to the nature of the gaps and other factors underlying 211 use.

Figures 2 sets out an analytical framework by which 211 data can be combined with other data to develop, test and refine hypotheses regarding human services issues and potential courses of action. Further details are elaborated in Appendix 3.

⁸ This can also apply to people who phone on behalf of their clients, friends and family

FIGURE 2: RESEARCH FRAMEWORK FOR USING 211 DATA



7. VISION FOR 211 ENABLEMENT OF HUMAN SERVICES

MANAGEMENT

7.1 VISION AND BENEFITS

By expanding and refining the collection, organization and dissemination of information which is or can be readily collected in the course of normal operations – and combining it with Statistics Canada and other readily obtainable information and referral data – Ontario 211 organizations can make available to the human service sector voluminous, wide ranging and unique data on human needs, service provider characteristics and agency and stakeholder perceptions.

This information can be used by human service organizations to become more data-driven, analytical and insightful in aligning the billions of dollars they spend each year with population needs and service gaps, and in strengthening service responsiveness, effectiveness and efficiency.⁹

In particular, human service organizations can use 211 data to enhance:

- **program promotion, outreach and communication** – applying 211 user data and stakeholder perceptions to identify awareness of programs and services and develop outreach programs
- **content publishing** – applying 211 user data and stakeholder perceptions to identify those topics where there are awareness, information and comprehension gaps which would benefit by educational and information materials and resources
- **service planning** – using 211 data as significant input into facility location, languages, hours of service, area served, service and program design
- **emergency planning and disaster response** - using information on service provider and population distribution to facilitate emergency planning and disaster response
- **land use policy** – providing input into site assessments, zoning reviews and neighbourhood planning
- **human resource planning** – monitoring senior personnel patterns and turnover
- **evaluation/social indicators/monitoring** - monitoring status and changes in user and provider behaviour and the correlative relationship to changes in environmental conditions

⁹The processes, skills and insights developed by 211 providers through enhanced gathering and analysis of 211 user data also could prove valuable to other agencies which wish to understand how their customers seek, interpret and assess information to address their problems.

- **issue identification and advocacy** – identifying issues of emerging importance, in particular gaps between expressed needs and service availability
- **allocation of resources** – pointing attention to emergent and unmet needs, service duplication and opportunities to match providers to needs
- **community development** – helping groups to understand needs and services in their community
- **public education** – providing information to the public about human service providers

7.2 TARGET GROUPS

Potential beneficiaries of enriched 211 data and analysis include all those organizations which fund, deliver, plan, promote, evaluate or analyze human services. This includes a wide cross section of organizations involved with health, correctional services, youth, women, seniors and immigrant programs, employment, education and other human services:

- Federal, provincial and local governments and their agencies
- United Ways
- Social Planning Councils
- National, regional and local non-profit organizations
- Umbrella organizations
- Private human service oriented firms (e.g., Employee Assistance programs)
- Private foundations and funders and donors to human service programs
- University and other research centres
- Public schools
- Community-based organizations and social action groups
- Consultants to the field
- Politicians, media, employee groups

211 data are relevant to a wide range of positions in these organizations including those responsible for executive functions, research, marketing, communications, programming and facilities, evaluation and resource allocation, as well as Boards of Directors and Committee members.

8. GUIDING PRINCIPLES

Following are suggested principles to guide 211 initiatives to support human services management and planning.

<i>211 is primarily an enabler (rather than a direct performer) of human services research</i>	<i>Recognizing the delivery focus of 211 organizations, and the breadth and depth of human service organizations, Ontario 211 agencies will serve primarily as the collectors and organizers of relevant, accurate and timely data, and the providers of data access, basic reports and advice so as to enable others to interpret and carry out primary research.</i>
<i>Broad access balanced by educated users</i>	<i>Recognizing both the potential value and complexity of interpreting 211 data, broad and transparent access to the data will be balanced by the need to ensure its ethical collection, and knowledgeable use, presentation, and interpretation. Limits and qualifications to the data will be clearly communicated.</i>
<i>Multi stakeholder input</i>	<i>Recognizing the widespread applicability of the data, input into all aspects of 211 will be sought from the broad constituency of stakeholders engaged with the management and planning of human services.</i>
<i>Customized research and fees</i>	<i>Recognizing the potential for customized research, opportunities will be made available for 3rd party commissioning of data collection, analysis and reports. Fees will be considered as a basis for financing such research.</i>
<i>Collaboration with data and research partners</i>	<i>Recognizing the significant potential synergies with other organizations, 211 organizations will seek and collaborate with partners to enhance the development, interpretation, management and dissemination of 211-generated information and research,</i>
<i>Consistent data and reporting standards</i>	<i>Recognizing the importance of rigorous, consistent data collection and reporting across the Province, a set of standards and staff training will be applied to data collection, consolidation, reporting and dissemination in support of human services management and decision-making. These will be consistent with North American AIRS standards.</i>
<i>Continuous improvement</i>	<i>211 organizations will regularly review the methods, processes and results of their support for human service decision-making in order to identify opportunities for improving both such support and core 211 service delivery.</i>
<i>Adherence to 211 delivery principles</i>	<i>Recognizing the 211 service focus, any processes or changes to support broader human service management will adhere to core delivery principles (e.g., respect, confidentiality and privacy for 211 users).</i>

9. IMPLEMENTATION

Key elements of implementation are described below.

9.1 DATA COLLECTION, REPORTING AND OTHER STANDARDS

All data collection processes, now undertaken for purposes of 211 quality assurance and service planning and evaluation, should be reviewed to determine if and how they can be adapted to facilitate human service planning. Such standards should be developed in consultation with the 211 field, notably AIRS, in order to harness their expertise and, ultimately, enable comparison of data across North America. Establishing consistency on key demographic and other factors among 211 data and other data sets (e.g., Statistics Canada, other information and referral systems) would ease the use of, comparison to and integration with other data sources. A number of areas requiring enhanced data collection are noted below.

9.1.1 SERVICE PROVIDERS

The collection of service provider characteristics is the historical backbone of 211 systems and has benefitted from rigorous analysis and the sharing of approaches across North America, facilitated by AIRS and the AIRS Taxonomy for categorizing programs and services. Nevertheless, the focus has been on collecting data useful for 211 service delivery.

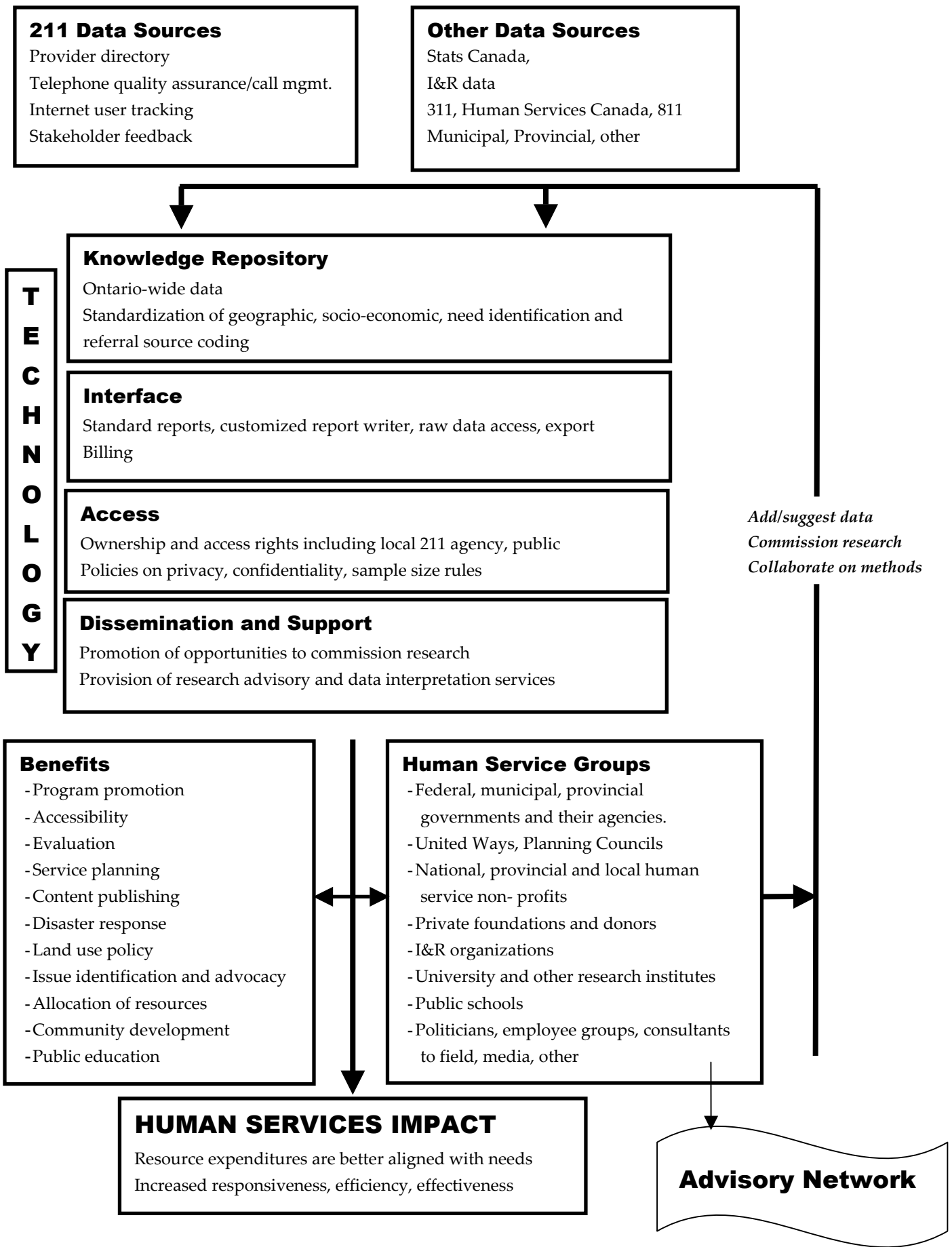
It is possible and likely that 3rd parties may wish to leverage existing capabilities and processes by requesting and paying the suppliers of this information (e.g., information and referral groups in each of the Ontario communities) to gather additional data on all or subsets of providers. As suggested by various respondents in this study, this could include more details on programming, number of employees, broad budget information, volunteer activity, and emergency capabilities. Protocols for acquiring, editing and presenting new types of information need to be established.

9.1.2 TELEPHONE

A priority is to develop a nuanced classification system for assessing reasons for calling/needs. Most 211 systems, including that of Findhelp, deploy a basic listing (say 15-20 categories) for recording caller needs/reason for calling, but one that is nevertheless a far less developed taxonomy than the sophisticated system used for the classification of service providers.¹⁰ An understanding of caller needs would benefit from a more developed “needs” taxonomy. Such a scheme would have to be sufficiently flexible to accommodate specialized interests of local communities and 3rd parties interested in more detailed surveys. This could be accomplished by setting provincial standards for pre-defined roll up categories, but allowing flexibility for more granular elaboration of individual categories. As well, any system would need to be sufficiently clear and lean so that Information and Referral Specialists could code calls within a few seconds.

¹⁰ Although knowing the recommended service provider does yield valuable insight into callers’ needs, there are many reasons why people can be referred to a service provider so referral information alone is imprecise. It is, therefore, important to collect independent, information on needs/reason for calling.

FIGURE 3: 211-ENABLING HUMAN SERVICES: VISION AND IMPLEMENTATION



Other required areas for standards and methods development are noted below:

- to develop a better profile of users, methods should be enhanced for efficiently and sensitively gathering more information on socio-economic characteristics of users, as well as on their previous use of 211, use of the Internet and other information sources of referral and self-assessment
- in particular, methods for eliciting and classifying sensitive but valuable information such as age, income sources, education, primary language and ethnocultural background should be reviewed and enhanced
- protocols for extracting value from potential qualitative sources should be developed, including for case documentation, call logs, analysis of call recordings, and eliciting of reflections, observations and insights from well educated Information and Referral specialists who talk to hundreds of callers each week.
- methods should be reviewed for achieving randomization and stratification of calls while balancing busy periods and the need to be sensitive to callers' preferences

9.1.3 *INTERNET*

As the Internet grows in popularity, it will be important to obtain as much information as possible from this medium. In order to ensure rigorous, province-wide consistency, protocols should be developed for:

- eliciting feedback on various referral issues from 211 web site users
- assessing free form search text in order to identify issues and trends not picked up through menu-driven choices
- conducting pop-up surveys geared to search or page context
- exploring the use of online screening tools to collect user data and facilitate access to appropriate services

9.1.4 *STAKEHOLDERS*

Feedback from stakeholders should be expanded to incorporate their perspectives on human service strengths, weaknesses and gaps. Such feedback could be more systematically gathered from a broad representation of stakeholders – not just heavy 211 users – deploying careful sampling and online survey tools.

9.1.5 *REPORTING*

Many 211 organizations currently publish annual or periodical listings of calls by unmet needs, topic/referred agency and selective call characteristics (e.g., gender, postal code, most referred agency). Few conduct any further cross-tabulated or more sophisticated analysis or analyze Internet data in much depth. Ontario 211 should develop a set of basic reports and templates which provide a comprehensive, cross-tabulated set of data, enabling the pinpointing of significant variances across socio-economic characteristics, geographic areas and timeframes.

Report templates which draw upon all sources - providers, telephone and Internet user and stakeholder perceptions - should be developed. These should be combined with Statistics Canada population data to show the relationship of Providers and user requests to population data and distribution.

9.1.6 MANAGEMENT

Processes also are required for:

- develop corresponding protocols, manuals and staff selection, orientation and training programs
- manage 3rd party research requests, including their review, consolidation, approval, pricing, scheduling, and implementation
- obtain feedback from users and stakeholders in order to assess any new data collection tools

There will be need to ensure that certain data are collected consistently across the province. However, it also is essential to provide local authorities with the ability to tailor some data collection to the unique needs of local stakeholders. This will be most challenging with respect to balancing the potentially multiple interests who wish to collect real-time information from telephone users as the time required may increase the risk of call abandonment.

9.2 A 211-FOCUSED KNOWLEDGE REPOSITORY

9.2.1 KEY DATA SOURCES

A knowledge repository is required to facilitate integrated access to, analysis of and reports drawing upon the various 211 sources as well as Statistics Canada and other data from across the province.

Various parties, including United Ways, have been discussing, for some time, the creation of a national, comprehensive repository comprised of dozens of sources of economic, social and other data. The proposed 211 repository is not intended to replace or compete with this broader initiative, but rather simply be a means for ensuring that 211 data, within the foreseeable future, will be effectively utilized.

Liaison should be undertaken with those promoting a comprehensive repository in order to foster alignment and synergy among 211 organizations and other participants.

In the meantime, attention should be focused on the 211-based repository. In its minimum configuration, it readily can be constructed from two primary sources

- 211 provider, telephone and Internet user and stakeholder perceptions' data
- Statistics Canada population data which can purchased

As well, data from Ontario community information and referral centres should be straight forward to obtain given the close relationships which exist among the information and referral community.

Given the 211 sponsor funding and supporter roles played by United Ways, the Ontario government and regional/municipal governments, additional data from these sources also should be available for the 211-specific repository.

9.2.2 KEY ELEMENTS

Data sources should be catalogued by factors such as title, description, methodology, relevant dates, geographical units and population sample, ownership and access rights, appropriate limitations and qualifications.

Individual data records should inherit data source descriptors plus be characterized in the most granular possible way with respect to a *minimum* of:

- Geographical unit (whether it be location of provider, postal code of user's residence)
- Selective socio-economic characteristics of respondents (e.g., gender, age, primary language etc.)
- Respondent needs/reasons for calling
- Referral recommendations (using the 211 taxonomy)

Because of the great value of geo-mapping, the repository needs to support GIS data and coding. All data classifications should be standardized across the Province. Other key elements are set out in Figure 4.

Of note, the City of Toronto has developed a form of knowledge repository¹¹ combining Statistics Canada, 211 Directory and municipal data. The repository supports the generation of sophisticated reports and maps, and is regularly used to analyze the relationship between population needs and provider services for various geographical scales. With the addition of 211 telephone and Internet user data and stakeholder perceptions, users of such a repository would be able to harness and demonstrate the power of a knowledge repository at the local level.

Processes should be established for ensuring that all data placed or linked into the repository conforms to the data model and is high quality. This will be aided by the use of province-wide standards for all 211 data and the established standards that exist for Statistics Canada data. Still, some formatting or editing of certain descriptive aspects of data sets might be required (as is undertaken for Statistics Canada data by City of Toronto staff).

¹¹ The City of Toronto repository includes SQL tables which are used for importing/storage of 211 Directory, Statistics Canada and other data, a SAS statistical analysis and reporting package, two mapping applications, and links to municipal land use, school board and other geo-coded data.

9.3 INTERFACE AND REPORTS

Standard reports should be made available online in PDF format. Users also should be able to generate customized versions of these reports, selecting data on the basis of pre-defined filters. For example, the user could select by year and census tract a report indicating the number of calls regarding youth and their relation to the number of youth in each area.

A report writer should be available for creating customized report.

An interface and underlying applications also would be needed to provide for registration and sign-in, managing rights and access, billing and allocation of revenues to the appropriate provincial/local sources, and for queuing requests if demands for on the fly reports exceed processing capacity.

FIGURE 4: KEY ELEMENTS OF A 211 KNOWLEDGE REPOSITORY

<p>Data Sources</p>	<p>Data from across Ontario</p> <p>Minimal Configuration All sources of 211 data which today includes</p> <ul style="list-style-type: none"> • Directory data on providers • Quality assurance and other data on telephone users • Internet user tracking data • Surveys and feedback from stakeholders <p>Statistics Canada Population Data (which can be licensed) Other local Information and Referral Data (e.g., from Community Information Centres) (which can be acquired/licensed)</p> <p>Other data with high synergies with 211 data are desirable, including</p> <ul style="list-style-type: none"> • Data from other non-profit referral services, e.g., Settlement.Org • Data from government information and referral organizations including 311, Service Canada, 811 • Provincial and regional/local human services data, including that related to immigrant, school board and local health provider sources <p>Other reliable data collected by the multitude of human services organizations would be useful.</p>
<p>Benefits</p>	<p>Provides a relatively low-cost, convenient solution that enables</p> <ul style="list-style-type: none"> • multiple sources of information to be combined and used to illuminate key human services issues • aggregate and comparative analysis at the Ontario level and across its communities
<p>Data Model</p>	<p>A unified data model is required to accommodate and make useful the disparate sources of data while not providing undue (re)coding challenges.</p> <p>Data sources should be catalogued by factors such as title, description, methodology, relevant dates, geographical units and population sample, ownership and access rights, appropriate limitations and qualifications.</p> <p>Individual data records should inherit data source descriptors plus be characterized in the most granular possible way with respect to a minimum of:</p> <ul style="list-style-type: none"> • Geographical unit (e.g., whether applied to provider address, catchment area, postal code, local phone exchange, home of 211 user) • Socio-economic characteristics of respondents • Respondent needs/reasons for calling • Referral recommendations (using the 211 taxonomy) <p>Because of the great value of geo-mapping, the repository needs to support GIS coding and data. All data classifications should be standardized across the Province. Coding categories should be as consistent, at least to roll-up levels, across different sources of data to facilitate integrated analysis.</p>
<p>Input/ Output</p>	<p>Quality control processes for managing the input and classification of data should be established. Data should be coded effectively and clearly at local level so quality control processes should be primarily ones of review. Statistics Canada and other purchased data are likely to be high quality.</p> <p>The repository needs to facilitate easy import/linkage of data sources, customized report application, web-enabled screen viewing, and standard export functions.</p>

9.4 ACCESS GUIDELINES

There are a range of access rights that can be granted to users, including, rights to:

- obtain standard data and reports (via the Internet or in print)
- obtain standard reports applying user-defined filters (e.g., geographical unit, time series)
- create and obtain customized analyses and reports
- add, combine or manipulate fields in the repository
- import data into one's own system
- recirculate/publish data and related analysis to 3rd parties and /or the public

The data to which these rights apply also need to be specified as these rights can variously apply to some but not all the data.

211 data are relatively new and, to date, have not been significantly reviewed by the human services and academic research communities. Although the data can be valuable to human service decision-making, the data also can be easily misinterpreted and misused. Opening up access to this important data should be balanced with fostering a knowledgeable, thoughtful approach. This can best be done by building an educated user community that will provide checks and balances in the interpretation and use of 211 data, and suggestions for refinements in data collections methods.

In this light, policies need to be established to address such questions as:

- Who are the different owners for the provider, telephone, Internet and stakeholder perception data? Does this vary by region? Are there any intellectual property issues that need to be resolved in order to implement public reporting?
- Who owns or controls use of aggregate data?
- Do local 211 organizations have access to the data of other Ontario 211 organizations? Are any data (e.g., evaluation of local stakeholders) private?
- What rights have those who commission and pay for data or research from 211 organizations to restrict access to these results? Are there any data access rights – e.g., for selected staff or researchers – that Ontario 211/regional or local 211 entities would retain?
- What access should the public have?
- How will conflicts regarding access to or use of 211 data be resolved?
- How will pricing, if any, for various types of access and data be established? How will fees be allocated for reports drawing upon multiple sources?

Ontario 211 should set policy to cover these matters as well as of those of privacy, confidentiality, and sample size and related disclosure rules. A fuller set of access issues and questions is presented in Figure 5.

FIGURE 5: 211 DATA ACCESS ISSUES

Access Rights	Types of Potential Customers/Users	Key Questions
Standard statistical reports	Ontario 211 – central office	Who owns the different types of data – provider Directory, telephone, Internet, stakeholder perceptions?
Standard statistical reports with pre-designed filters	Regional and local 211 entities Suppliers of 211 provider data (e.g., Inform Ontario organizations)	Who has the right to specify access rights? Does the Ontario-wide organization possess sole rights? Does the local organization possess rights over their local data? What rights are possessed by the owners of the data – e.g., a municipality, or a 3 rd party who has commissioned certain research? How will disputes over access and use of data be resolved?
Custom report writer with access to pre-defined domains of data/communities	Funders of 211 Funders of specially commissioned data in the repository	Will there be any system-wide policies determining what information can or must be accessible to the public? If not, will each owner be able to make that determination for their data? Will private parties who have commissioned research be able to restrict access to data? If such is restricted, what will be the impact on the commissioning of research? Are there hybrid solutions?
Slice and dice access to some or all raw data	Data and research partners Non-profit human service organizations in Ontario	Will funders of the system receive different types of access than others? Will local 211 organizations have access to all system data (including information from other communities?) What about evaluation data about which local parties may be sensitive?
Rights to import some or all data	Federal, Ontario and regional/local governments	How will Statistics Canada and other data which requires licensing arrangements be obtained and charged back to local 211 organizations and users? Specialized arrangements may be required if that data is to be publicly reported upon or made available in raw format to others.
Rights to circulate analyses and data	Private sector, media, individuals in Ontario 211 organizations outside Ontario Other interested parties outside of Ontario	Will there be fees for certain types of access? Will there be fees for different types of customers, e.g., private sector, large organizations, interests outside of Ontario?

9.5 PROMOTION AND SUPPORT

Effective promotion and support is critical to building an educated community of users that will drive the collection of rigorous, useful data and the production of insightful, careful analyses.

To facilitate utilization of 211 data, Ontario 211 should communicate to human service agencies about the availability, potential uses and limitations of the data, along with the protocols for commissioning customized 211 data collection.

Communication can be through 211 and partner web sites, e_newsletters, conferences, regular training workshops, community meetings and normal day-to-day interaction with local agencies.

In order to support human services planning and management, a research consulting/advisory service should be established. It would assist those who wish to acquire a deeper understanding of 211 data, analyses and reports and/or to commission specialized 211 data collection and analyses.

Communication and advice should be focused, initially, on a narrower group of stakeholders who have social research backgrounds and can contribute to the development and implementation of new data collections methods and interpretation of results.

The research advisory service might initially prioritize its support for a) local 211 organizations b) 211 funders c)innovative, high impact province-wide research projects d)innovative, high impact local projects

9.6 TECHNOLOGY

A technology infrastructure is required to enable the creation and operation of the knowledge repository, interface and online, report access. In addition to standard operating and security features, required elements include:

- a data model
- a data repository, likely an SQL structure, to store the range of information from 211 and other sources; the repository should be able to hold text, numerical, audio and video types of data
- a GIS system that enables mapping of the data
- a report writing system that enables creation, storage and customization of queries and reports
- applications that enable billing and the management of user rights

- interface(s) to the various functionalities (e.g., from canned PDF reports to raw SQL tables). Ideally, there would be one or a limited number of interfaces that enables easy access to all the various data and applications.
- web-enablement of all key functions
- the incorporation of business rules regarding access, billing, application of privacy and sample size rules etc.
- a document and help facility
- training for all users on standards and definitions to ensure consistency in data collection and reporting

The creation of a province-wide system will be facilitated by the following:

- Ontario 211 communities use the same taxonomy and system and applications for collecting and editing service provider data
- the same Internet application will be used across Ontario
- Ontario 211 communities are likely to use the same provincial set of standards for call data collection
- Statistics Canada data can be purchased for the entire Province, and, at any rate, uses consistent field structures for all geographical areas. Statistics Canada data can be imported into standard SQL tables.

A challenge will be the inclusion of municipal, regional, provincial and other geo-coded data along with the appropriate GIS applications. There are a variety of options for building a GIS system, including extending the Toronto system (which already integrates 211 provider as well as Statistics Canada data), using another municipal or a provincial system, creating a hybrid system, and/or building a new system.

Any infrastructure also needs to take into account factors such as ease of use, functionality, cost, reliability of vendor, support, scalability and flexibility of solutions.

9.7 COLLABORATION

Strengthening the use of 211 data for human service planning would benefit significantly from the many resources and talents in the broader community. Ontario 211 should seek collaborations with organizations which possess:

- relevant data that can be linked or exported to the repository such as that from local Community Information Centres, other information and referral organizations, 311, Service Canada 811 (when available), regional/municipal school board, local health and other sources

- research expertise that can contribute to the design of effective systems for data collection, analysis and reporting; such expertise, for instance, can be found at Social Planning Councils, United Ways and among university research centres and academics
- channels for disseminating relevant reports, e.g. United Ways, umbrella organizations
- skills at developing and managing a knowledge repository and suite of interrelated applications, e.g. some of the larger local and regional governments
- champion users of 211 data who will develop and disseminate best practices

Any collaborations need to be characterized by clear understandings regarding expected benefits and costs. 211 organizations need to consider what they can offer to prospective partners, For example, this might include access to customized data collection and reporting services at reduced fees. In turn, data and research partners need to have an appreciation of 211 organization capability and investment in high quality data collection and relationships with service providers, stakeholders and public users.

9.8 ORGANIZATION

Key functions that need to be undertaken by the local/regional level:

- Provide input into province-wide data collection methods and reports
- Assist members of the local human service community to access reports/data, interpret results and define topics/strategies for additional, customized 211 data collection
- Communicate to local constituencies the opportunities to conduct research and access data
- Foster partnerships with local organizations
- Understand the local population profile
- Monitor human services research projects in their communities

Regional call centres would be responsible for implementing and contributing to provincial standards for data collection, implementing any customized data collection and ensuring appropriate staff training.

Provincial leadership would be required for the development of province-wide data collection and reporting methods, access policies, staff training programs, and the maintenance of a knowledge repository and technology infrastructure.

9.9 GOVERNANCE

9.9.1 *PROVINCIAL LOCUS*

Co-ordination is required at the provincial level as:

- most of the proposed changes are to processes which will be overseen by the central, provincial body. This includes, for instance, quality assurance processes and Internet technology.
- there are economies of scale in acquiring and managing regional and provincial 3rd party data (e.g., from Statistics Canada)
- the analysis of aggregate or comparable data across the Province requires consistency in approaches at the local level
- the development and maintenance of a province-wide knowledge repository requires co-ordination and leadership

9.9.2 *PROVINCIAL-LOCAL BALANCE*

Over time, it is expected that there will be a multitude of requests for customized data collection and reporting. These requests can originate from bodies with provincial, regional or local interests. Customized province-wide research initiatives will pose demands on regional staff time.

An area of particular complexity is real time surveying of 211 telephone users. The 1-2 minutes of required user time is a scarce resource. It could be the subject of multiple requests to conduct a survey – e.g., from the provincial Ontario 211 body, local 211 bodies, and 3rd party regional and local organizations.

A process to balance provincial, regional and local needs should be developed for receiving, reviewing, costing, pricing, approving, scheduling, and administering survey requests from 3rd parties, especially for real time caller surveys.

9.9.3 *CONSULTATION WITH STAKEHOLDERS*

In addition to provincial and local 211 authorities, a broad range of other stakeholders can make important contributions. Some of these organizations (e.g., provincial government departments) will have an interest in both province-wide and local matters, while others will have an interest only in provincial or local matters.

9.9.4 GOVERNANCE STRUCTURES

Governance structures need to reflect the value of provincial co-ordination for 211-enablement of human service management, the need to inject social research expertise into the DNA of 211 life, and the importance of consultation with a wide array of stakeholders.

Potential mechanisms include:

- Appointment of 2-3 members to the 211 Board with expertise in human services planning, management and research

- Creation of a suitable mechanism for the central and local Ontario 211 teams and, as appropriate, for the local information and referral data providers, to share perspectives on various implementation issues

- Establishment of an Advisory Network to suggest methods and priorities for applying, collecting, organizing, analyzing, presenting and disseminating 211 and related data so as to
 - maximize the beneficial impact on human services in Ontario
 - minimize misuse and misinterpretation of the data.
 - build a knowledgeable data user community
 - ensure conformity to ethical use and presentation of data

The network might start off, initially, as informal one, comprised of representatives of social research organizations such as United Way(s), Social Planning Councils, Trillium, university research institutes, federal, provincial and municipal research departments, and representatives of information and referral data providers. Over time, other organizations could be invited to join. In the course of operating the network, it is expected that task groups and formal committees with more focused mandates would be established. Encouragement should be given for the eventual development of a formal Research Advisory Council, which might also identify potential, high impact research projects along with advising on methods,

- Local bodies would be able to establish their own consultation or advisory networks.

10 CHALLENGES, OPPORTUNITIES AND TRENDS

There are a number of challenges in adapting 211 data collection and reporting processes to better support human services planning and management. These include:

10.1 ADDRESSING DATA REPRESENTATIVENESS

211 user data are unrepresentative of the population. This arises from the many individual and environmental factors which influence whether or not someone uses (or doesn't use) 211 services.

Individual factors include personal information searching style, awareness and perceptions of 211 services, knowledge about human service resources, nature of one's needs and self-perception of them, access to and comfort with Internet and even telephone technology.

Environmental factors include socio-economic conditions, weather, availability, quality and availability of service providers, outreach/promotion of service providers, and population distribution.

These individual and environmental factors are non-randomly distributed and will dynamically change as individual and environmental conditions change.

In order to assess the population representativeness of 211, it is important to understand the 211 user profile(s). Indeed, there are a number of constraints on readily determining the population representativeness of 211 users.

Limits on easily determining 211 user profile(s) arise from the need to maintain caller confidentiality, resistance of some call centre staff to asking directly for personal information from callers, need for further training by some staff, resentment of some callers about the collection of personal (e.g. ethno cultural) information, inconsistency in self-assessment (e.g., primary language), difficulties in obtaining personal information from Internet users, and constraints on the number of questions that can be asked of callers in real time.¹²

¹²This, in turn, is affected by individual preferences and styles of caller, Information and Referral Specialists, and the quality of the contact tracking software.

The evolution of 211, likely, will increase the number of service requests from agency professionals and multiple users. Developing a better profile of users would help 211 organizations achieve core service delivery goals while also enhancing human service planning and management. This could take place through more Internet surveys, including those related to search context, more questions or differently worded questions on real-time telephone calls regarding background, more in-depth questions on background during follow-up calls to telephone users, and the conducting of an annual general population survey in which 211 usage is investigated. These issues are discussed further in Appendix 3.

10.2 INTEGRATING NEW SOURCES OF INFORMATION

If 211 organizations accept new opportunities to expand their services – e.g. provide volunteer matching, answer baby boomer questions on additional topics – new information of potential interest to human services planners will become available. As service providers offer their clients more online information, some of it real-time, and the sector deploys more shared applications, additional data will become available for human service planners.¹³ Disaster planning, indeed, may become a significant driver of real-time provider networks that can be leveraged to collect other data relevant to the human services sector.

The growth of specialized in bound services will generate additional opportunities to collect information. For example, the State of Texas refers persons who meet certain criteria to the Medicare program where they are provided with additional information and program opportunities. This approach could be applied to any topic from childhood obesity to seniors' housing. Providing users with more information and services creates richer engagement and opportunities to request and collect detailed information.

The growth of 311, Service Canada and 811 systems will generate additional data about the broad information and service needs of Ontario communities. Ideally, these data, along with 211 and local CIC data, will be shared – even in aggregate form - to provide a more complete picture of information and referral dynamics.

¹³ Some of these opportunities could be outside the scope of 211 service as defined by information and referral industry standards (Inform Canada/AIRS), in which case due consideration will need to be given to the benefits and costs of such an expanded role.

10.3 ADAPTING TO CHANGING INTERNET AND CALL CENTRE TRENDS

The continued evolution of Internet ease and pervasiveness of use, growth in populations who are extremely comfortable with the Internet and Instant Messaging for day to day communication, the continued sophistication of search tools, and the spread of online listings, rating services, blogs and wikis will increase reliance on the Internet for finding human services information. This will place pressure on 211 services to incorporate new features, and, over time, likely result in a shift of significant numbers of users to online interaction with 211 (e.g., through standard and mobile access to the web, Instant Messaging). Deeper understanding of Internet use patterns requires personalized data collection techniques – e.g., pop up surveys geared to search context – to be implemented on the 211 web site.

Automated menus, if ever implemented (even to partially support 211 services), would significantly change the type of data that are collected through the telephone. In some ways, this could, if carefully structured and tested, improve the comprehensiveness and accuracy of data collected, but also would reduce the opportunities for personal engagement with and data collection about and from the user.¹⁴

¹⁴ Use of automated systems could be seen as counter to the AIRS Standard 2.16 which states, "Under no circumstances shall technology reduce or replace supported access through a qualified I&R specialist. The main role of technology is to enhance or strengthen person-to-person contact, not to reduce or eliminate such contact or make it more difficult.", and could engender resistance by some 211 call centres and their staff.

10.4 EVOLVING A NEW SYSTEM

The systems and culture of 211 organizations are geared to delivery. Incorporation of a human service management component will require careful planning and training. Certainly, if 211 organizations are to better support human service decision-making, they will need an injection of social research perspectives and expertise at the senior professional management level.

Although 211 organizations already have in place the core processes for cost-effectively generating data to support human service management, the necessary deepening, expanding and refining of these processes could introduce tensions with established businesses processes. For example, Information and Referral Specialist probing of users' backgrounds may compete with the need to maintain high customer volumes, comfort and quality of interaction, especially during peak periods.

Budget also will need to be made available for ongoing review of data collection and research methods and access guidelines, for the support of advisory groups and provision of research advice to 3rd parties, for the pursuit and maintenance of data and research partnerships, for the design, implementation, creation and management of a knowledge repository, for staff training, and for the carrying out of enriched or new data collection functions. It is expected that third party funding would cover the bulk of new and customized research although an expanded core 211 analysis and reporting function would be desirable and result in additional costs. How these costs are allocated among provincial and local entities would depend upon the scale of activity, division of roles, nature of partnerships and extent of third party funding.

As 211 evolves, it is inevitable that many good suggestions will arise for how 211 organizations can collect and make available better data and reports for the human service sector.

Any implementation strategy must provide for an ongoing capability to respond to the evolving 211 marketplace, to unanticipated opportunities for impacting on human service sector decision-making, and to the inevitable issues that arise in integrating a new, albeit incremental (human service support) business line into the established delivery operations, organization and budget.

11. NEXT STEPS

11.1 ASSUMPTIONS

The proposed next steps assume the following:

- There are exciting and important possibilities for using 211 information to enhance human services decision-making. At the same time, it is important to recognize the limitations and complexity of telephone and Internet user data.
- The focus and pace of enhancing 211 capacity to support human services planning is highly dependent upon the priorities, strategies and pace of the overall 211 implementation.
- Ontario 211 is likely to be pre-occupied with rolling out core services. However, it is better to explore integrating the two approaches *now* while Ontario 211 processes, systems and culture are being forged, rather than wait for several years after which any desired changes might be far more difficult and expensive.
- Any next steps should be incremental and exploratory, rather than making significant commitments of resources or directions at this point. Successfully making even incremental changes will require an injection of human services planning and research expertise into the 211 system and cultural DNA.
- This study was focused on developing a framework and testing broad interest with selective stakeholders. Significantly more consultation is required to determine and validate the extent and depth of stakeholder interest, gather what likely will be many potential ideas for application, and identify implementation concerns and suggestions. Further consultation should take advantage of the work to date, plus present concrete illustrations of potential reports and analyses in order to elicit detailed responses from a wide array of Ontario human service organizations and experts.
- The North American 211 field is highly co-operative, contributed significantly to this report and both it and Ontario efforts would benefit from ongoing dialogue with AIRS and other 211 leaders.
- The leading edge approaches in Toronto should be supported, while the feasibility of the proposed approaches also should be explored in smaller Ontario communities. Lessons from both situations should be incorporated into an overall Ontario plan.

- The development of the knowledge repository is the most technically and administratively complex aspect of a new system. Concurrent consultation is required with various parties who are interested in building a comprehensive repository – in which 211 data would be a part – and to those who could participate in building the smaller scale 211-specific repository.

11.2 RECOMMENDATIONS

It is, therefore, recommended that Ontario 211 undertake a second Phase of work as follows:

GOVERNANCE

- Appoint 2-3 members to the Ontario 211 Board who are knowledgeable about human services research and the potential and limits of 211 data to enhance human services management and planning.
- Establish a provincial 211 Advisory Network, reporting to the Ontario 211 Board, to advise on research priorities and data collection and reporting methods. The initial membership should have strong expertise in human services research and represent all geographic areas of Ontario. Membership should include representation from United Ways, federal, Ontario, and regional/local government research and planning representatives, Social Planning Councils, universities, Inform Ontario and other data partners. Initially, network membership and operation would be informal, but over time would be expected to evolve into more formal committees and a Research Advisory Council. The Research Advisory Council, might make ultimately, recommendations on the development and funding of high impact research projects as well as research methods.

ONTARIO 211 DIRECTIONS

- Clarify the directions for the broader 211 project with respect to the many items that may affect this initiative – e.g., technologies, quality assurance and evaluation protocols, governance etc.

KNOWLEDGE REPOSITORY

- Explore with various local, regional and provincial parties, options for creating an Ontario-wide, 211-focused, GIS-enabled knowledge repository for 211, Statistics Canada, other information and referral and related data

- Convene and encourage groups with a Toronto focus – e.g., Findhelp, City of Toronto, United Way of Greater Toronto, Community Social Planning Council of Toronto, university research representatives, other federal and provincial government representatives – to extend the City of Toronto knowledge repository so as to incorporate 211 telephone and Internet user data and stakeholder feedback. This will provide a basis for developing more integrated analysis and reports.
- Explore with United Ways and other interested parties the contribution and benefits that 211 organizations and data might achieve through participating in a national, comprehensive knowledge repository.

CONCEPT DEMONSTRATION AND CONSULTATION

- Develop low cost demonstrations of human service enabled data collection and reporting in Findhelp supported communities, e.g.,
 - Analysis of free form Internet search text
 - Feedback from an interdisciplinary panel on case studies of complex calls
 - Facilitation of operator staff observations and reflections on trends in calls
 - Feedback from web visitors through (pop up) surveys sensitive to search context
 - Pilot telephone surveys to illustrate enriched collection and use of the data

A priority would be to develop some in-depth analyses which draw upon an integrated approach to the varied 211 and related data – e.g., provider, telephone, Internet and stakeholders

- Support at least two pilots in smaller communities, tailoring analyses and reports, using 211 and related data (e.g., local CIC, Statistics Canada) to the interests of local human services organizations
- Consult broadly among Ontario non-profit, government and private human service organizations as to potential applications of 211 data. This should be enhanced by the use of illustrative reports. These discussions also should address implementation issues, including the potential for data and research partnerships and for charging fees for producing specialized research and reports.

METHODOLOGY

- Identify priorities and develop related data collection and reporting methods for providing value to human service planners and managers
- Develop a classification of human needs/reason for calling that can be applied by Information and Referral Specialists to 211 caller requests and also used in Internet surveys
- Develop methods for assessing the population representativeness of 211 user data
- Liaise with the broader 211 field, including the Alliance for Information and Referral Services (AIRS) and the 211 Leadership Council, on the development of data collection and reporting standards, establishment of a knowledge repository, and other matters required to implement the proposed changes

RESOURCING

- Estimate costs for implementing selected scenarios of the proposed next steps
- Contract appropriate human resources to support the above initiatives for at least a period of one-year. Strong social research, systems thinking and project management skills are critical.
- Adapt these recommendations in light of Ontario 211 priorities, develop an implementation plan in consultation with appropriate parties, and provide or seek funding to carry it out

APPENDIX 1

RESEARCH SOURCES

- Ongoing liaison with Project Managers: Bill Morris, Manager Government Relations, United Ways
- In-depth review of Findhelp materials, discussion with staff, and multiple discussions with Cheryl, May, Executive Director. Discussion with Tim Hodapp, Findhelp Board member and Vice-President, Syonvate. Meeting with senior staff.
- Research support and draft reviews by Tom Page, former Executive Director of Washington 211 system, now co-chair of the North American 211 Leadership Council and a consultant to the field
- Research support and draft reviews by Saddeiq Holder, former professor of Social Work at York University and consultant on immigration issues
- Review by Michael Mendelson, former Deputy Minister of Cabinet, and currently social policy consultant and Senior Scholar at Caledon Institute of Social Policy
- Review of City of Toronto approach and documents regarding use of Findhelp data in combination with Statistics Canada data. Discussion with Harvey Low, Division, Social Policy Analysis & Research Unit and Chris Brillinger, Director, Community Resources, Social Development, City of Toronto
- Interviews with and draft reviews by Clive Jones, Consultant to AIRSs, and former senior manager at Community Information Toronto
- Interviews with Canadian 211 and information and referral providers and experts, including Pam Hillier, Executive Director, Community Connection (for Simcoe Country 211); Rosanna Thoms, Executive Director, Niagara 211; Kate Johnston, Manager of Communications and Corporate Projects, Halton Region; Marie Klassen, Program Director, Community Information and Referral Centre; Thunder Bay; Katie Ayres, Call Centre Supervisor, Distress Centre of Calgary and 211 Centre; Nancy Douglas, 211 Program Supervisor, Edmonton; Deborah Woods, Consultant to 211 organizations in Ontario
- Conducted online survey of US state and local 211 providers, receiving responses from 211 programs in California, Connecticut, Georgia, Idaho, Minnesota, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Vermont, and Washington, representing call centres serving isolated rural communities to large urban and statewide programs
- Interviews with senior representatives from leading US 211 providers, including Atlanta, Connecticut Indiana, Los Angeles, San Diego
- Interview with Tino Paz, Manager of 2-1-1, United Way of America
- Review of multiple documents from 211 providers

- Review of 211 AIRS ListServ during March 2007
- Interviews with Dan Clement, United Way of Canada, Janos Botschner, Research Coordinator, Research & Evaluation Unit, Policy Research & Analysis Branch, Social Policy Development Division, Ministry of Community and Social Services; James Duh, Senior Policy Advisor, Information Policy and Integration Unit, Policy, Research & Analysis Branch, Social Policy Development Division, Ministry of Community and Social Services
- Consultation with Ian Ketcheson, Internet media specialist
- Interviews, discussion and/or email exchange with practitioners and experts in human services planning and research, including: Mike Battrick, Programme Consultant, Settlement Directorate, Ontario Region, Citizenship and Immigration Canada; Alan Broadbent, Chairman, Maytree Foundation and CEO, Avana Capital Corporation; Marco Campana, Senior Program Consultant, Policy and Research Branch, Ontario Ministry of Citizenship and Immigration; John Campey, Executive Director, Community and Social Planning Council of Toronto; Diane Dyson, Research Analyst/Allocations Manager, United Way of Greater Toronto; Andy Cherniak, senior professional and manager with many years of experience in children's hot lines and private sector employee assistance programs; Joel Christie, Social Planner, Community and Neighbourhood Services, Family and Community Support Services (FCSS), City of Calgary; Andreas Courtinois, Research Associate, Centre for Global eHealth Innovation; Barbara Hansen, Consultant community engagement and development; Karey Iron, Health Information Officer at the Institute for Clinical Evaluative Sciences; Gillian Kerr, former senior staff at United Way and a consultant specializing in human services evaluation; Anita McBride, President of YOUTHLINK; Armine Yalnizyan, Director of Research, Community and Social Planning Council of Toronto

APPENDIX 2

FACTORS AFFECTING 211 USER PROFILES(S)

User data derived from both the telephone calls and Internet site searches do not reflect the population nor can this user base readily be adjusted to do so.

REPRESENTATIVENESS OF DIRECTORY AND STAKEHOLDER DATA

Directory data, though by far the most comprehensive listing of its nature, does not include all services, particularly government, health and private services. However, because agencies are explicitly named, described and catalogued according to a well structured taxonomy, it is feasible to assess the representativeness of the providers according to other reference points, and to explicitly adjust by weighting sample size and/or surveying additional targeted sources.

Feedback gathered from stakeholders currently reflect organizations which are heavy users/sources of referrals. Again, these organizations and individuals can be clearly defined and compared to other reference points. Thus, 211 organizations can design and carry out stakeholder consultation processes which achieve any reasonable pre-defined criteria for representativeness.

211 users represent a subset of the population which anticipates the benefit of accessing 211 services will outweigh the time and psychic costs compared to alternatives such as word of mouth, googling, doing nothing etc. Thus, someone who expects only a moderate benefit (say a seasoned agency user who is calling to validate their understanding of resources) also recognizes the low cost (1-2 minutes) and might be a regular user, while another person who anticipates the service may provide large value but also is unclear about how to access it (high cost) may not use the service.

Consider the myriad ways of classifying users.

Users can be characterized by socio-economic characteristics. For instance, women, downtown residents, and immigrants disproportionately use Findhelp.

Users also can be characterized by their frequency of use – say, first time users and multiple users. For example, if 1/3 of user are multiple users, and (say) average 3 calls a year, that means that 60% of all annual calls are from multiple users $(\frac{1}{3} \cdot 3) / ((\frac{1}{3} \cdot 3) + (\frac{2}{3} \cdot 1))$. Over time, it appears that the high satisfaction of 211 users, likely, will lead to their increased utilization, and a rising portion of requests being placed by multiple users.

Or users can be characterized by whether or not they are members of the public or agency professionals, the latter who, likely, are mainly multiple users.

Perhaps, most important and cutting across all of these classifications is the nature of the user request. Users can be categorized by their needs, arranged from simple information to complex referral, as set out below:

- Requests for *contact* information for a desired resource, in effect, using 211 as a convenient and less expensive substitute for 411 (e.g., questions about phone numbers and addresses)
- Requests for *contact and access* information (e.g., questions about determining which specific program or location) for a desired resource
- Requests for *contact, access and resource* information for a desired type of resource given a clear need. For example, someone may indicate they are homeless and need a shelter but have no idea of what shelters might exist.
- Requests for *contact, access, type of resource and specific resource* information given an unclear or multiple sets of needs. For example, someone may present a range of legal, financial and health symptoms that need to be clarified in order to determine the type of required resource as the basis for referring a specific resource.
- Requests for emotional support or emergency assistance – this could accompany the other requests

In many cases, the Information and Referral Specialist will have to work with the caller in order to determine the underlying need as the caller may request information or a referral that is dissonant with the problems which they are presenting.

However one categorizes users – by socio-economic characteristics, frequency of use, public/agency role, nature of information/referral needs, it is clear that the user types and levels are highly influenced by a number of factors.

These include individual factors, for example:

- Actual and self-perceived needs.¹⁵ People may perceive or not perceive they have a need or inaccurately perceive their need.
- Awareness and knowledge of human service providers relevant to one's perceived needs
- Information searching styles, skills and access to other information resources (e.g., social networks, expert assistance, agency relationship)
- Awareness and perceptions of 211 and understanding how to use it
- Presence of telephone and Internet means of access

¹⁵ This also applies to the many agency professionals and other members of the public who make a referral on behalf of a client, family member or friend.

In turn, these factors are influenced by environmental factors, for example:

- Distribution of population with varying mixes of individual factors
- Conditions influencing the nature and distribution of needs, e.g.,
 - Economy and other external conditions
 - Weather and natural systems
- Types and levels of services provided by service providers
- Public and agency professional awareness of 211 services, in turn, affected by 211 promotion targets, vehicles and effectiveness, and word of mouth
- Nature, quality and accessibility of information from providers, media, 3rd parties and word of mouth regarding
 - availability of human services and how to access them
 - how to assess one's needs and service options
- Changes in technology related to the Internet, mobile telephone and communication devices

People who do use 211 service clearly experience some form of gap between their needs (as viewed by them or their referral agent) and available resources – whether it is time and convenience, awareness of provider options, access or the lack of available services.

People who do not use 211 services include those who

- do not have a problem that requires support from the human services sector
- feel they do not have a problem even if experts believe they do
- believe they have a problem but feel
 - they are already accessing appropriate resources
 - they are already aware of other relevant resources
 - that there are no suitable, available resource
- believe that there are better methods of learning about potential providers than using 211
- feel that even if 211 might be useful, it's not worth the effort
- have not heard about 211 (which has not been widely advertised), or do not have a clear image of how to access 211, or have negative images about 211 (though there are very high satisfaction levels among users)

What is clear is that both the sets of individual and environmental factors are complex, ever-changing and non-randomly distributed.

In many circumstances, it is valuable to know the extent to which users represent the population so as to be able to more precisely determine the nature of any generalizations that

can be made from 211 user data. However, there are a number of constraints on readily determining the population representativeness of 211 users.

Limits on easily determining 211 user profile(s) arise from the need to maintain caller confidentiality, resistance of some call centre staff to asking directly for personal information from callers, need for further training by some staff, resentment of some callers about the collection of personal (e.g., ethno cultural) information, inconsistency in self-assessment (e.g., re primary language), difficulties in obtaining personal information from Internet users, and constraints on the number of questions that can be asked of users in real time, which, in turn, is affected by individual preferences and styles of the caller as well as the Information and Referral Specialist, and the quality of the contact tracking software.

To address issues of representativeness, it is important to consider ways of better monitoring 211 user profiles. This could take place through conducting more Internet surveys on user background/attitudes, including those related to search context or the provision of more in-depth services which facilitate the ability to ask more questions, asking more or differently worded questions on caller background during real-time telephone calls, asking more in depth questions on caller background/attitudes during follow-up calls to telephone users, or conducting of general population surveys in which 211 usage is investigated. Certainly, rigorous research methodology should be applied to the consideration of these matters.

APPENDIX 3: A FRAMEWORK FOR APPLYING 211 DATA TO HUMAN SERVICES RESEARCH

Like all people, human service professionals carry about a mental map of the domains with which they are familiar. Their mental maps contain explicit and implicit elements of the human services world, including hypotheses as to who has what needs, how people define their needs and search for solutions, population distribution, what service providers exist, and how they respond to various needs, how changes in the economy, culture and technology impact upon human needs, what are current and prospective gaps between human needs and service availability, the attendant organizational and job responsibilities for addressing these gaps, and the optimal course of action to take given the organizational, political and resourcing context..

New information enriches maps, strengthens certain hypotheses, weakens other hypotheses, raises questions and leads to action, even if only to further research or to attend differently to various factors. New information that is especially disconfirming of one's hypotheses or cannot be readily explained – for example, significant variations across time periods, socio-economic groups or geographical areas – provokes dissonance and questioning. Ideally, this incites new hypotheses development, testing and learning, ultimately leading to new insights and changes in organizational and individual behaviour.

Absolute levels and variations in 211 user data across time periods, socio-economic groups and geographical areas are important indicators of some form of gap between perceived need and resources. These factors are likely related to awareness/promotion of services, accessibility, and/or the type and availability of the services.

For instance, data on low or high levels of calls on given topics (e.g., persons needing shelter in the winter, persons who cannot find a daycare space in their neighbourhood) can provide valuable information to service planners, evaluators and providers

Changes in the number of calls (by various caller characteristics) over time, or differences across geographic areas or by caller characteristics also can trigger valuable questions into underlying reasons to explain such variations.

Disentangling the precise explanatory factors may be difficult, if not impossible, relying only upon 211 user data. At the least, 211 data provides a voluminous, diverse and unique source of data that can illuminate critical issues and questions. At the best, triangulating 211 user data

with 211 provider data and stakeholder perceptions and other data will provide further insight as to which of these gaps or other factors are most pertinent. The commissioning of additional, customized 211 research can further contribute to understanding the nature of the gaps and factors underlying 211 use.

In summary, 211 user data provide a potentially valuable source of insight, which combined with other information, can substantially strengthen the domain maps held and the actions taken by human service professionals and organizations.

Following is an analytical framework for conducting research using 211 data.

A Framework for Applying 211 Data to Human Services Research

