Indicators of Functional Health and Formal Services Use: Quality of Life Measures for Elderly Persons Living in Social Housing

Indicators of Quality of Life, Health and Well-Being in Social Housing. Paper No. 4

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June, 1993

The Centre for Future Studies in

Housing and Living Environments

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This project was funded by the Canada Mortgage and Housing Corporation, but the views expressed are the personal views of the authors and the Corporation accepts no responsibility for them.

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Development of Indicators of Quality of Life, Health and Well-being in Canadian Social Housing

INDICATORS OF FUNCTIONAL HEALTH AND FORMAL SERVICES USE: QUALITY OF LIFE MEASURES FOR ELDERLY PERSONS LIVING IN SOCIAL HOUSING

-- Executive Summary --

This paper discusses indicators of functional health and the formal services use of the elderly. Functional health and formal services use are linked causally and are important constructs in gerontological research and in measuring the quality of life of seniors living in social housing. Addressing several clear study objectives, the paper is divided into five sections. It begins by setting the context and defining the importance of supportive housing for seniors in Canada in light of current demographic, social and government policy trends. This is followed by a discussion of the components of functional health and formal services use and their correlates and determinants. Several well established indicators of both concepts are subsequently described in terms of their history, reliability and common usage. The paper closes with a discussion of some key methodological issues related to primary and secondary data collection and analysis, overall study design and funding. Recommendations are given in the last section and reproduced here as part of the executive summary.

Functional Health

Most of the research on indicator development in the area of functional health began with severely disabled persons in institutions, and gradually progressed to patients discharged from rehabilitation hospitals. In the late 60's and 70's indicator research began to focus on the measurement of health status of the general population. Although there is some variability in the range of functions included in specific indices, there is remarkable agreement in the approach to measuring functional ability across surveys. Building on the work of others, most surveys include indicators of how well one can perform functions necessary to providing personal care or activities of daily living (ADLs). Ability to perform these personal care functions has been used frequently as an indicator of ability to live outside institutions.

Increasingly, surveys are also including indicators of abilities necessary for maintaining an independent residence or instrumental activities of daily living (IADLs), also often referred to as domestic activities. These activities measure a group of behaviours that are more complex and less directly body-oriented than physical self maintenance. Sometimes, the two sets of indicators are combined into one scale to identify a broader range of disability in study populations. It has been demonstrated that ADLs and IADLs have a hierarchical relationship with the former representing the most severe level of disability.

More recently functions indicating ability to function in the wider world outside the home (AWWs) have also been included in community-dwelling surveys. These functions include such higher-order activities as walking distances and climbing stairs which typically require more stamina and range of motion than the above two groups.

Functional ability is not unidimensional. Indeed, the most recent research suggests that there are three reliable, unidimensional scales that emerged from items taken from the original ADLs (personal care activities) and IADLs (domestic activities). The first, called basic ADL, consists of five items from the traditional ADL, including the need for help with bathing, dressing, getting out of bed, walking and toileting. The second scale is the household ADL consisting of four items taken from the traditional IADL, including the need for help with such household chores as meal preparation, shopping, and light and heavy housework. The third scale is called the advanced ADL (activities which are correlated with cognitive impairment), and consists of three items taken from the original ADL and IADL. These relate to the need for help with managing money, using the telephone and eating. These findings are consistent with the hierarchical relationship between ADLs and IADLs established in the literature and work that has split IADLs into sub-scales.

Formal Services

Formal services are defined quite broadly as those services and amenities provided by community based or institutionally based health and social service agencies and organizations that give assistance on a short or longer term basis to elderly persons experiencing difficulties with activities of day to day living. These services can be delivered in two ways – to the individual in her or his own home; or by the individual accessing the service outside his or her home. In the context of social housing, formal services can also be offered on site directly by the housing agency. A list generic services that fall under each delivery mode are given in the paper. The availability and accessibility of these services may vary from community to community as does the specific name of the service. The types of formal services that have been consistently identified as critical to aging in place include transportation, security systems or services, in-home nursing or personal care services, home making or housekeeping services, home maintenance or chore services, meals services, senior centres and information and referral services.

The established indicators of formal services use fall under two groups of services: (1) traditional acute medical services such as physician and hospital visits; and (2) community health and social services that are provided either in the home or in the community at large. The second group includes on-site services provided by government housing agencies directly such as maintenance, tenant supports and managerial services. To get a complete picture in terms of evaluating the impact these services have on the health and well-being of individuals, it is important to include indicators of three measurement areas (utilization patterns, volume statistics and quality of services) of both of these types of formal services.

Indicators of the use of medical services (physician services, visits to other health practitioners, hospital separations and emergency visits) and the related measurement areas have been well established in population based large sample health surveys in both Canada and the U.S.A. Indicators of the use of community health and social services are grounded in gerontological research. One of the best known and most widely referenced is the Older Americans Resources and Services (OARS) multi-dimensional functional assessment questionnaire. The paper discusses the OARS model and its components and provides a list of health and social service use indicators that have found their roots in models such as OARS and continue to be expanded/modified in studies of the need for and use and evaluation of services for seniors.

Recommended Indicators and Methods of Data Collection

The recommended indicators of functional health and formal services use and the most appropriate methods to collect these indicators are summarized below.

Recommended Indicators of Functional Health

A number of criteria, based on the stated research questions, were used for the selection of an index of functional health.

Criteria used for selection include:

- sufficient sensitivity to identify a broad range of disability (all three dimensions)
- proven reliability and validity
- collected in other studies
- easy to administer and understand
- has scaling properties (allows comparison among various housing stocks)
- was developed for similar study population
- minimal respondent burden

The recommended scale, shown in Exhibit 5.1.1 and summarized below, meets these criteria and has a number of additional strengths. First, this scale represents the latest state of the art in functional health measurement. Second, this scale is multi-dimensional and incorporates three dimensions of disability that are usually measured using different scales - basic activities of daily living, instrumental activities of daily living and advanced activities of daily living (which are correlated with cognitive impairment). Thirdly, this scale includes activities which will capture the different levels of disability ranging from mild to severe. Fourthly, this scale is short and simple to administer. Finally, within each activity being measured, the response categories are restricted to two levels which provides the information needed without the detail often present in these scales.

In addition to the scale summarized below and displayed in Exhibit 5.1.1, it is recommended that a series of questions be included that measure sight and hearing limitations as this has implications for housing design. Exhibit 2.2.2 outlines the recommended questions. These are recommended because they are standard, well-tested questions used by the Health and Activities Limitation Survey (HALS) and others.

Three Dimensional ADL Scale (Uni-dimensional Origin)

Can you use the telephone..... (advanced ADL)

0 = without help
1 = either with some help, or completely unable to perform

Can you get to places out of walking distance.....(basic ADL)
Can you go shopping for groceries or clothes.....(household ADL)
Can you prepare you own meals.....(household ADL)
Can you do your housework.....(household ADL)
Can you take your own medicine....(household ADL)
Can you handle your money...(advanced ADL)
Can you eat...(advanced ADL)
Can you dress and undress yourself....(basic ADL)
Can you walk.....(basic ADL)
Can you get in and out of bed....(basic ADL)
Can you take a bath or shower....(basic ADL)
Do you ever have trouble getting to the bathroom on time....(basic ADL)

A total ADL score is calculated by summing the individual items. The scoring will occur at two levels: (1) scoring of each item separately, and (2) scoring of the items as a set.

Recommended Indicators of Formal Services Use

Criteria used for Selection:

- types of formal services identified by the elderly (and younger adults with disabilities) as most needed -- proven reliability and validity
- types of formal services accessed the most by the elderly (and younger adults with disabilities)
- collected in other studies
- potential to improve tenants' quality of life

Key Types of Medical Services

- family physician
- emergency department
- in-patient hospital

Key Types of In-Home Health and Social Services

- visiting home maker services
- home maintenance or chore services*
- visiting nurses services (such as Home Care in Ontario)
- meals services (like meals on wheels)
- security check service
- emergency response system

Key Types of Community Health and Social Services

- special transportation service
- seniors' recreation centres
- seniors' day programs (could be located in a centre or in an institution)
- over night respite care

Key Types of Amenities Provided by the Housing Agency

- laundry room
- lounge, games room
- congregate meals/restaurant
- on-site office (for housing staff, other staff)

Key Types of Service Providers Employed by the Housing Agency

- housing manager
- maintenance staff or superintendent
- tenant support worker (i.e. community relations worker, security tenant)

* includes minor repairs and maintenance of the apartment such as changing light bulbs, fixing leaky faucets etc.

Important Indicators of Use Patterns

Criteria used for selection:

- addresses three measurement areas – utilization, volume and quality
- minimum information needed to evaluate whether or not formal services enhance well–being of tenants in social housing

Key Indicators of Use

- number of times service used in a given time period (the last one month, 6 months, one year)
- why service not accessed (not aware of service or no need for service)
- satisfaction with service (using a set of identified response categories – specific to type of service)

Recommended Level of Analysis

- a national level study could identify the functional health of social housing residents as an indicator of health and well–being

- a national level study can also address the extent to which physical and social environments provided by social housing contribute to enhancing the functional capability of its residents

- a national level study can be designed to address question of the extent to which key services are being provided now to residents in social housing across the country (using a check list approach of generic services)

- a national study could also answer the question of how well (using a satisfaction index) services are being provided

- to fully address the question how much the provision of formal services (compared to other factors) contributes to the health and well–being of social housing residents, would require the collection of community specific service use indicators over time using an experimental or case control evaluation method

- A national focus could be maintained by targeting a number of communities with like characteristics (or depending on the design, targeting service rich and service poor communities)

Indicators Requiring Primary Data Collection

– community health and social services use indicators and indicators of functional health would require primary data collection as only minimal population based survey data is available on these types of indicators

– medical services use could be derived from secondary data – through linkage to provincial health insurance data bases and other population health surveys (see Appendix B); however, the cost and time involved in going this route at this time is still high; it would be preferable to collect these few indicators directly from respondents since reliability and respondent recall is quite good for these types of indicators

Appropriate Data Collection Instruments and Respondents

– we would recommend asking residents directly for information on utilization, volume statistics for medical services and quality of services; volume statistics for in–home services such as visiting nurses can be reliably collected from respondents only if the recall period is short (i.e. use during the last week, 2 weeks); therefore, when volume data over a longer period is required (for example to look at hard costs), we recommend retrieving these types of data from agency records. This is not an onerous task at the local level.

– we would recommend using self–reported functional health indicators keeping in mind that in the past elderly tenants in public housing were thought to under–report their health for fear of eviction. This was not found to be the case in a recent survey of elderly residents in public housing in Ottawa, where interviewers' observations matched self–reported functional and physical health quite closely

– a mixed mode survey approach is recommended; one that we have used successfully many times is a self–administered questionnaire with a telephone or face–to–face follow–up of non respondents. Surveys are either mailed directly or distributed door to door by housing staff (this depends on the nature of the study and whether or not it is being carried out in partnership with local housing authorities.

Appropriate Control or Comparison Groups and Variables

– in order to compare the functional health and the extent of formal services use by residents in social housing (social housing would be further subdivided into its various components – public housing, Co–op etc.) to the extent of use by residents in non social housing settings, two comparison possibilities could be considered:

(a) one could select comparison private sector buildings in the same communities as the target buildings you are evaluating; buildings should be alike in their size, location, age distribution of tenants, modest income level building; the disadvantage with this approach is that it is often difficult to obtain the necessary information needed to make the building selection; Having access to names, addresses and telephone numbers of the tenants may be less problematic, since most city directories would have this type of information

(b) another possibility would be to compare the CMHC survey results in one province (such as Ontario) to a provincial health survey (such as the Ontario Health Survey); The Ontario Health Survey has a large enough sample to make community level (Health Unit jurisdictions) comparisons; You can also request special tabulations such as respondents who live in rental housing with a certain income level etc. (Questions contained in Section H of the questionnaire); Depending on the number of screening variables, your comparisons may have to be made at the provincial rather than local level; The limitation of this approach is that your comparison variables are limited to those that are collected the same way in both surveys (see Appendix C for examples of how functional health and formal services use indicators are phrased in the Ontario Health Survey).

– the control variables would be the same as the key indicators collected in the survey of residents of social housing

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Canada

Établissement d'indicateurs de la qualité de vie, de la santé et du bien-être dans les logements sociaux canadiens

INDICATEURS DE LA SANTÉ FONCTIONNELLE ET DE L'UTILISATION DES SERVICES OFFICIELS

MESURES DE LA QUALITÉ DE VIE DES OCCUPANTS ÂGÉS DES LOGEMENTS SOCIAUX

-- Résumé --

Dans le présent rapport on aborde la question des indicateurs de la santé fonctionnelle des personnes âgées et de l'utilisation que les aînés font des services officiels. Il existe un lien causal entre la santé fonctionnelle et l'utilisation des services officiels, deux constituants importants de la recherche en gérontologie et de la mesure de la qualité de vie des personnes âgées occupant des logements sociaux. Le rapport, divisé en cinq sections, aborde plusieurs objectifs d'étude précis. On commence par présenter le contexte et définir l'importance du logement en milieu de soutien pour les Canadiens âgés, à la lumière des tendances démographiques, sociales et d'action gouvernementale. En deuxième lieu, il est question des composants, des notions corrélatives et des déterminants de la santé fonctionnelle et de l'utilisation des services officiels. On décrit ensuite quelques indicateurs bien établis de ces deux concepts en s'attachant à leur histoire, leur fiabilité et leur usage habituel. Le rapport se termine sur l'étude de questions clés relatives aux méthodes de collecte et d'analyse des données primaires et secondaires, au concept général de la recherche et à son financement. La dernière section formule des recommandations, que nous reproduisons ici dans le résumé.

Santé fonctionnelle

La plupart des recherches sur l'établissement d'indicateurs dans le domaine de la santé fonctionnelle ont commencé auprès de personnes gravement handicapées logeant en établissement, et se sont étendues par la suite aux patients sortant de services de réadaptation dans les hôpitaux. Vers la fin des années 1960 et 1970, la recherche d'indicateurs s'est concentrée sur la mesure de l'état de santé de la population en général. Malgré une certaine variabilité de l'étendue des fonctions incluses dans des indicateurs spécifiques, on constate une concordance remarquable des méthodes utilisées pour mesurer les capacités fonctionnelles dans les différentes enquêtes. Partant des travaux déjà effectués, la plupart des enquêtes comprennent des indicateurs de la mesure dans laquelle le sujet peut accomplir les fonctions nécessaires aux soins personnels ou aux activités de la vie quotidienne. La capacité d'accomplir ces fonctions de soins personnels sert fréquemment d'indicateur de l'aptitude à vivre hors des établissements.

De plus en plus, les enquêtes incluent aussi des indicateurs des capacités nécessaires pour entretenir un lieu de résidence autonome ou mener des activités essentielles de la vie

quotidienne, que l'on appelle souvent tâches domestiques. Ces tâches mesurent un groupe de comportements plus complexes et moins axés sur le corps que ne le sont les simples soins corporels. On combine parfois les deux ensembles d'indicateurs en une même échelle afin de définir une gamme plus étendue de l'invalidité dans les populations étudiées. On a montré qu'il existe entre les tâches quotidiennes et les tâches domestiques une relation hiérarchique dans laquelle les premières correspondent au degré le plus élevé d'invalidité.

Les dernières enquêtes sur les logements d'une collectivité incluent également des fonctions démontrant la capacité de réaliser des activités à l'extérieur du foyer. Ces fonctions comprennent des activités aussi exigeantes que faire de longues distances à pied et monter des escaliers, tâches qui demandent en général plus de vigueur et d'amplitude de mouvements que celles des deux groupes mentionnés plus haut.

Les capacités fonctionnelles n'ont pas qu'une seule dimension. En réalité, selon les recherches les plus récentes, trois échelles fiables et unidimensionnelles se dégageraient d'éléments tirés de ce que l'on avait défini au départ comme les activités de la vie quotidienne et les tâches domestiques. La première, appelée échelle des activités de base de la vie quotidienne, se compose de cinq éléments de ces activités traditionnelles, notamment le besoin d'aide pour le bain, l'habillement, le lever, la marche et la toilette. La deuxième échelle, celle des activités domestiques de la vie quotidienne, se compose de quatre éléments des tâches domestiques traditionnelles, soit le besoin d'aide pour des tâches comme la préparation des repas, les courses, et les travaux durs et légers du ménage. La troisième échelle est celle des activités avancées de la vie quotidienne : activités ayant un lien de corrélation avec la déficience cognitive; elle se compose de trois éléments tirés de ce que l'on avait défini au départ comme les activités de la vie quotidienne et les tâches domestiques. Ces éléments ont trait au besoin d'aide pour gérer son argent, utiliser le téléphone et manger. Ces nouvelles échelles concordent avec la relation hiérarchique qui existe entre les activités de la vie quotidienne et les tâches domestiques, relation définie dans les écrits et dans les travaux qui ont amené la subdivision des tâches domestiques en sous-échelles.

Services officiels

Selon une définition très générale, les services officiels sont les services et facilités offerts par des agences et organismes de services sociaux et de santé, de nature communautaire ou institutionnelle, qui apportent de l'aide à court ou à long terme aux personnes âgées qui ont de la difficulté à accomplir leurs activités de la vie quotidienne. Les services officiels peuvent être offerts de deux façons, au domicile de la personne âgée ou à l'extérieur. Dans le contexte du logement social, les services officiels peuvent aussi être offerts sur place, directement par l'organisme de logement. Le rapport donne une liste des services courants relevant de chaque catégorie de prestation. La disponibilité et l'accessibilité de ces services peut varier d'une collectivité à l'autre, comme d'ailleurs l'appellation précise de chaque service. Parmi les types de services officiels qui sont définis uniformément comme essentiels aux personnes âgées désirant demeurer chez elles, on retrouve les transports, les systèmes ou services de sécurité, les services de soins infirmiers ou soins personnels à domicile, les services de ménage, les services d'entretien ou de travaux ménagers, les services de repas, et les services d'information et d'aiguillage.

Les indicateurs établis de l'utilisation des services officiels se répartissent en deux groupes de services : (1) les services médicaux actifs traditionnels, comme les visites chez le médecin et à l'hôpital; et (2) les services de santé communautaires et sociaux que l'on reçoit à la maison ou dans la collectivité en général. Le deuxième groupe comprend les services offerts sur place directement par les organismes de logement de l'État, par exemple l'entretien de la maison, le soutien aux locataires et les services de gestion. Pour bien comprendre l'importance de l'effet qu'ont ces services sur la santé et le bien-être des personnes, il est important de tenir compte d'indicateurs pour trois domaines de mesure (habitudes d'utilisation, statistiques de volume et qualité des services) dans ces deux types de services officiels.

Les indicateurs de l'utilisation des services médicaux (visites chez le médecin, visites chez d'autres praticiens, renvois de l'hôpital et visites à l'urgence) et les domaines de mesure connexes ont été bien établis au moyen d'enquêtes sur la santé menées auprès de vastes échantillons de population au Canada et aux États-Unis. Les indicateurs de l'utilisation des services de santé communautaires et sociaux se fondent sur les recherches en gérontologie, et l'un des plus connus et des mieux documentés est le questionnaire d'évaluation fonctionnelle multidimensionnelle Older Americans Resources and Services (OARS). Le rapport traite du modèle de l'OARS et de ses composants, et donne une liste d'indicateurs de l'utilisation des services de santé et des services sociaux, indicateurs puisés dans des modèles tels que l'OARS et que l'on continue d'étendre et de modifier dans des études sur le besoin, l'utilisation et l'évaluation des services offerts aux personnes âgées.

Recommandations relatives aux indicateurs et aux méthodes de collecte des données

Voici, en résumé, les indicateurs recommandés pour l'utilisation des services de santé fonctionnelle et des services officiels ainsi que les meilleures méthodes à utiliser pour la collecte de ces indicateurs.

Indicateurs recommandés pour la santé fonctionnelle

La sélection d'un indice de santé fonctionnelle s'est faite à partir d'un certain nombre de critères fondés sur les questions de recherche formulées.

Citons parmi les critères de sélection :

- sensibilité suffisante pour établir de nombreux degrés d'invalidité (les trois dimensions comprises)
- fiabilité et validité démontrées
- recueilli dans d'autres études
- facile à administrer et à comprendre
- doté de possibilités de variation (permet la comparaison entre divers parcs de logements)
- élaboré au départ pour des populations d'études semblables
- fardeau minime imposé au répondant

L'échelle recommandée, figurant au tableau 5.1.1 et résumée ci-dessous, répond à ces critères

et présente un certain nombre d'avantages supplémentaires. Premièrement, cette échelle représente le point des connaissances sur la mesure de la santé fonctionnelle. Deuxièmement, il s'agit d'une échelle multidimensionnelle intégrant trois dimensions de l'invalidité qui sont habituellement mesurées à l'aide d'échelles différentes - les activités de base de la vie quotidienne, les activités essentielles de la vie quotidienne et les activités avancées de la vie quotidienne ((activités ayant un lien de corrélation avec la déficience cognitive). Troisièmement, cette échelle comprend des activités permettant de saisir les différents degrés de l'invalidité, allant de légère à grave. Quatrièmement, c'est une échelle courte et simple à administrer. Enfin, dans chacune des activités mesurées, les catégories de réponse se réduisent à deux niveaux, ce qui permet de recueillir les renseignements voulus sans s'encombrer des détails que l'on retrouve souvent dans ces échelles.

En plus de l'échelle résumée ci-après et présentée au tableau 5.1.1, on recommande d'ajouter cinq questions mesurant le degré d'acuité visuelle et auditive, étant donné qu'il a une influence sur la conception de l'habitation. Le tableau 5.2.2 énonce les questions recommandées. Elles le sont parce qu'il s'agit de questions standard, soumises à des essais multiples, utilisées dans le questionnaire de l'Enquête sur la santé et les limitations d'activité (ESLA) et d'autres enquêtes.

Échelle tridimensionnelle des activités de vie quotidienne (origine unidimensionnelle)

Êtes-vous capable d'utiliser le téléphone..... (activités avancées de la vie quotidienne)

0 = sans aide
1 = soit besoin d'aide, soit incapacité absolue

Êtes-vous capable de vous rendre à des endroits qui ne sont pas accessibles à pied..... (activités de base de la vie quotidienne)

Êtes-vous capable de faire votre marché ou d'acheter des vêtements..... (activités domestiques de la vie quotidienne)

Êtes-vous capable de préparer vos repas..... (activités domestiques de la vie quotidienne)

Êtes-vous capable de faire votre ménage..... (activités domestiques de la vie quotidienne)

Êtes-vous capable de prendre vous-même vos médicaments..... (activités domestiques de la vie quotidienne)

Êtes-vous capable de vous occuper vous-même de votre argent..... (activités avancées de la vie quotidienne)

Êtes-vous capable de manger sans aide..... (activités avancées de la vie quotidienne)

Êtes-vous capable de vous habiller et de vous déshabiller..... (activités de base de la vie quotidienne)

Êtes-vous capable de marcher..... (activités de base de la vie quotidienne)

Êtes-vous capable de vous coucher et de vous lever vous-même..... (activités de base de la vie quotidienne)

Êtes-vous capable de prendre vous-même un bain ou une douche..... (activités de base de la vie quotidienne)

Est-ce qu'il vous arrive de ne pas avoir le temps de vous rendre aux toilettes..... (activités de base de la vie quotidienne)

Indicateurs recommandés de l'utilisation des services officiels

Critères ayant servi à la sélection :

- types de services officiels que les personnes âgées (et les jeunes adultes invalides) ont définis comme étant ceux dont ils ont le plus besoin -- fiabilité et validité démontrées
- types de services officiels les plus utilisés par les personnes âgées (et les jeunes adultes invalides)
- recueilli dans d'autres études
- susceptible d'améliorer la qualité de vie des locataires

Principaux types de services médicaux

- médecin de famille
- service des urgences
- hospitalisation

Principaux types de services de santé et de services sociaux à domicile

- services d'auxiliaires familiales
- services d'entretien de la maison et de travaux ménagers*
- services d'infirmières visiteuses (comme le Programme de soins à domicile de l'Ontario
- services de repas (comme les « repas livrés à domicile »)
- service de vérification de la sécurité
- système de réponse immédiate en cas d'urgence

Principaux types de services de santé et de services sociaux communautaires

- service de transports spéciaux
- centres de loisirs pour personnes âgées
- programmes de jour pour personnes âgées (dans un centre de loisirs ou dans un établissement)

indicateurs de la santé fonctionnelle et ceux de l'utilisation des services officiels sont formulés dans le Ontario Health Survey).

- les variables de contrôle seraient les mêmes que les principaux indicateurs recueillis dans l'enquête auprès des occupants des logements sociaux.

- soins de relève pendant la nuit

Principaux types de commodités offertes par l'organisme de logement

- buanderie
- salon, salle de jeux
- salle à manger communautaire, restaurant
- bureau sur place (pour le personnel de l'organisme de logement et autres employés)

Principaux types de fournisseurs de services à l'emploi de l'organisme de logement

- administrateur du logement
- personnel de l'entretien, ou concierge
- employé affecté au soutien aux locataires (c.-à-d. un spécialiste des relations communautaires ou de la sécurité des locataires)

* ceci comprend l'entretien de l'appartement et les petites réparations telles que changer les ampoules électriques, réparer les robinets qui fuient, etc.

Indicateurs importants des habitudes d'utilisation

Critères ayant servi à la sélection :

- vise trois domaines de mesure - l'utilisation, le volume et la qualité
- un minimum d'information requis pour évaluer si les services officiels améliorent ou pas le bien-être des locataires du logement social

Indicateurs clés de l'utilisation

- nombre de fois que le service a été utilisé durant une période donnée (le mois dernier, les six derniers mois, l'an passé)
- la raison pour laquelle le service n'a pas été utilisé (on ne savait pas qu'il était offert, ou on n'a en pas eu besoin)
- la satisfaction qu'a procurée le service (à l'aide d'un ensemble de catégories de réponses définies, particulières à chaque type de service)

Niveau d'analyse recommandé

- une étude à l'échelle nationale permettrait d'établir que la santé fonctionnelle des locataires du logement social est un indicateur de la santé et du bien-être

- une étude à l'échelle nationale permettrait aussi de déterminer jusqu'à quel point les milieux de vie physique et sociale qu'offre le logement social contribuent à améliorer les capacités fonctionnelles des personnes qui y habitent

- on pourrait concevoir une étude à l'échelle nationale visant à vérifier dans quelle

mesure les principaux services sont offerts actuellement aux bénéficiaires du logement social partout au pays (à l'aide d'une liste de contrôle des services les plus courants)

- une étude à l'échelle nationale permettrait aussi de mesurer jusqu'à quel point les services sont offerts de façon satisfaisante (à l'aide d'un indice de satisfaction)

- pour répondre efficacement à la question de savoir dans quelle mesure la prestation des services officiels (par rapport à d'autres facteurs) contribue à la santé et au bien-être des personnes habitant des logements sociaux, il faudrait recueillir des indicateurs d'utilisation propres à des collectivités déterminées, sur une certaine période de temps, au moyen d'une méthode d'évaluation expérimentale ou de contrôle des cas

- on pourrait garder une orientation nationale en ciblant un certain nombre de collectivités ayant des caractéristiques communes (ou encore, selon le modèle de l'étude, en ciblant des collectivités où les services abondent et d'autres où ils sont rares)

Indicateurs exigeant la collecte de données primaires

- les indicateurs de l'utilisation des services de santé et des services sociaux communautaires et les indicateurs de la santé fonctionnelle exigeraient la collecte de données primaires, étant donné que pour ces types d'indicateurs, on ne dispose que de données d'enquêtes fondées sur des populations minimales

- l'utilisation des services médicaux pourrait se calculer à partir de données secondaires - par l'accès aux bases de données des programmes provinciaux d'assurance-maladie et à d'autres enquêtes sur la santé de la population (voir à l'annexe B), mais le coût et le temps qu'exigerait cette méthode restent élevés à l'heure actuelle; il serait préférable de recueillir ces quelques indicateurs directement auprès des répondants, la fiabilité des données et la mémoire des personnes interrogées étant très bonnes pour ces types d'indicateurs.

Recommandations concernant les instruments de collecte des données et les répondants

- nous recommandons d'interroger les locataires en personne pour obtenir des données sur l'utilisation des services, des statistiques de volume sur les services médicaux et la qualité des services; dans le cas des statistiques de volume sur les services à domicile, par exemple les infirmières visiteuses, les données obtenues des répondants ne seront fiables que si la période de rappel est courte (c.-à-d. l'utilisation faite depuis une semaine ou deux); par conséquent, lorsqu'il faut des données correspondant à une période plus longue (p. ex. si l'on veut étudier les coûts de base), nous recommandons de tirer ces types de données des dossiers de l'organisme, ce qui ne constitue pas une tâche onéreuse à l'échelle locale.

- nous recommandons d'utiliser les indicateurs autodéclarés de santé fonctionnelle, sans oublier qu'autrefois, on croyait que les locataires âgés des logements sociaux se disaient en moins bonne santé qu'ils ne l'étaient vraiment, de peur de se voir expulsés. On avait tort, comme l'a démontré une enquête menée récemment auprès des occupants âgées des logements sociaux à Ottawa; dans cette enquête, on a constaté une concordance assez étroite entre les observations des intervieweurs et les renseignements autodéclarés en matière de santé fonctionnelle et physique
- nous recommandons une méthode mixte pour l'enquête; une méthode que nous avons utilisée maintes fois avec succès consiste en un questionnaire à remplir par l'occupant, suivi d'une entrevue en personne ou au téléphone avec les non-répondants. Les questionnaires sont expédiés directement par la poste ou distribués de porte à porte par le personnel de l'ensemble de logements sociaux (selon la nature de l'étude et s'il s'agit ou non d'une enquête menée de concert avec l'organisme local d'habitation).

Recommandations concernant les groupes et variables de contrôle ou de comparaison

- pour établir une comparaison entre la santé fonctionnelle et l'étendue de l'utilisation des services officiels par les occupants des logements sociaux (à subdiviser par la suite en ses divers composants - logement public, coopératives, etc.) et l'étendue de l'utilisation de ces services par les personnes n'habitant pas le logement social, on peut envisager deux possibilités :

(a) on pourrait choisir comme immeubles de référence des immeubles du secteur privé, dans les mêmes collectivités que les immeubles cibles de l'évaluation; il devrait s'agir d'immeubles semblables quant à la taille et à l'emplacement et quant à la répartition des locataires par groupes d'âge, et d'immeubles occupés par des locataires de revenu modeste; l'inconvénient de cette façon de procéder est qu'il est souvent difficile d'obtenir les renseignements voulus pour la sélection des immeubles. Il peut être plus facile d'obtenir les noms, adresses et numéros de téléphone des locataires, puisque dans la plupart des villes, ces renseignements apparaissent dans les annuaires téléphoniques.

(b) une autre possibilité serait de comparer les résultats de l'enquête de la SCHL dans une province (l'Ontario, par exemple) à ceux d'une enquête provinciale sur la santé (par exemple, le Ontario Health Survey); cette enquête provinciale a un échantillon assez vaste pour permettre d'établir des comparaisons à l'échelle de la collectivité (ou du territoire d'un Bureau de santé); on peut aussi demander des tableaux spéciaux, par exemple les répondants locataires disposant de tel ou tel revenu, etc. (les questions figurent à la section H du questionnaire). Selon le nombre de variables de sélection, il se peut que l'on soit forcé d'établir les comparaisons à l'échelle provinciale plutôt que locale. Cette méthode présente l'inconvénient de limiter les variables de comparaison à celles qui sont recueillies de la même manière dans les deux enquêtes (on trouvera à l'annexe C des exemples de la façon dont les

Development of Indicators of Quality of Life, Health and Well-being in Canadian Social Housing

INDICATORS OF FUNCTIONAL HEALTH AND FORMAL SERVICES USE: QUALITY OF LIFE MEASURES FOR ELDERLY PERSONS LIVING IN SOCIAL HOUSING

1.0 INTRODUCTION

This paper discusses indicators of functional health and the formal services use of the elderly. Functional health and formal services use are linked causally and are important constructs in gerontological research and in measuring the quality of life of seniors living in social housing. In the course of this discussion, the paper addresses Canada Mortgage and Housing Corporation's (CMHC) main objective for this research project which is:

- to develop indicators of health and well-being which would apply to social housing and could be used in the upcoming CMHC evaluation of its urban social housing programs.

As stated in the original Terms of Reference, the indicators should enable CMHC to address the following issues and research questions:

- What is the state of health and well-being of social housing residents? How does it vary across the social housing stock? and client groups? How does it compare to similar groups who live in the private housing market?
- When thinking of the social and physical environments provided by social housing, what are the services and amenities which can enhance the health and well-being of its residents? To what extent are they being provided and how well?
- Beyond providing affordable, suitable and adequate housing, to what extent do the physical and social environments provided by social housing contribute to the health and well-being of its residents?
- Can social housing act as a stabilizer in people's lives which facilitates the achievement of a higher level of self-sufficiency and well-being?

In an evaluation context which addresses diagnostic, process and impact measurements, this paper will:

- identify appropriate types of indicators to address functional health and service utilization;
- identify proper level of analysis for these types of indicators (i.e. national, provincial, regional, neighbourhood levels of analysis);
- identify indicators which will require primary data collection;
- identify appropriate data collection instruments and respondents;
- identify appropriate control groups and variables; and
- identify advantages and disadvantages of these types of indicators and research approaches including bias problems, response rates, timing and funding sources.

The paper is organized in several sections. This section provides some background on the role of social housing in an aging society to set the overall context for our discussion. Section two discusses the general concept of functional health, its definition, its various components, and its correlates. A description of some established indicators of functional health is also presented in this section. Formal services are defined in Section three. The different measurement areas of formal services, and why it is important to address these areas in the context of CMHC's objectives are also discussed in Section three as are some of the determinants of formal services use such as functional health. Section three also describes the established indicators of formal services use. Some of the methodological issues related to the use of functional health and formal services use indicators, their reliability and validity and some current applications of these constructs are discussed in Section four. Section five presents the recommended indicators for the purpose of CMHC's research, the level of analysis for each indicator, the data sources, the availability of secondary data, the appropriate types of data collection instruments and respondents, the appropriate control groups and variables and some of the advantages and disadvantages of the recommended indicators and research approaches. The recommendations are summarized in Section five.

1.1 The Role of Social Housing in an Aging Society

The needs and preferences of older adults and the factors contributing to a loss of independence among the elderly have been well documented. Based on our own research of seniors living in social housing (Flett, 1976, 1980; Denton and Davis, 1986, Davis & Goldblatt, 1990; Davis, 1991, 1992), there is ample evidence to support CMHC's prudence in exploring the relationship between different aspects of social housing and the quality of life of the residents. Recent government initiatives responding to identified needs and preferences have encouraged the development of different models of supportive housing for seniors living in social housing. Supportive housing is defined as "independent permanent living arrangements for persons with special needs residing as tenants in non–profit social housing settings, where essential support services are separate in some way from the actual accommodation but where there is some degree of coordination between the housing operator and the service provider" (Perrin, 1991) The issue of tenant support is critical for policy makers in the social housing field for a number of reasons. These include:

- the large number of seniors – particularly women on their own – living in public housing now who are very old (75+);
- the increasing percentage of low income, single mothers and others with special needs in family housing and the community at large who will become tomorrow's elderly tenants;
- the breakdown of traditional modes of informal help due to changing family structures, higher geographic mobility etc.;
- a redirection of government policy away from the traditional forms of long term care for the elderly and the disabled such as nursing homes and residential care homes to the use of community services such as visiting homemakers, meals on wheels etc.; and
- a trend towards a delinking of services where regular providers of community housing fulfil the accommodation function and separate community agencies provide support services – in other words, support services to persons with special needs are not tied to specific residential settings.

These reasons along with a clearly expressed desire on the part of elderly residents in social housing to remain in their home as long as possible makes the notion of supportive housing an important quality of life concept. (Chappell, 1990) Thus the three research questions posed by CMHC for this assignment are important – issues related to the state of health and well being of residents; what are the services and amenities which can enhance the health and well–being of residents; and to what extent do the physical and social environments contribute to health and well–being of residents.

1.1.1 Re–examining Health Care: Arguments for Supportive Housing

There is clearly a trend in Canada and elsewhere to re–examine the traditional delivery methods of health care to all segments of our society including the elderly. There has been a conscientious effort on the part of local providers to recognize that health needs involve more than the delivery of health care services but also encompass social, housing, employment and other services. It is now well recognized that these services must co–operate and collaborate if the needs of the whole person are to be met in a coordinated manner. (Institute for Health Care Facilities of the Future, 1990.) What is not known are how these partnerships will impact on health care costs. Health care "costs" involve costs to individuals and society as well as financial expenditures. In addressing "costs", it is important to measure both the "hard" dollar costs as well as the "soft" more qualitative aspects such as the quality of life.

While government policy is clearly shifting away from the promotion of institutional care towards an increase in community based services, few definitive studies have been released that compare the hard or soft costs between these two modes of service delivery. What evidence does exist is contradictory. (Davis, 1991) While some researchers argue that helping people stay in their homes with support services is generally less costly (in a monetary way) than institutionalization (Brink, 1987; Goldblatt, 1986), others claim that evaluations with

regard to this issue are either non-existent, unscientific, or incomplete (Cluff, 1987; Forbes et al., 1987; Marshall, 1987; National Advisory Council on Aging, 1987; Weissert, 1985). Either way, some experts in the aging field are putting forth alternative models of housing the very old that they maintain can have positive effects on the quality of life of vulnerable elderly persons. (Sherwood et al., 1986; Schwenger, 1988). The argument is made that it is possible to successfully place a segment of the currently institutionalized elderly in a less restrictive living arrangement in the community.

Although a number of tenant support models have been developed in social housing projects across the country, very few have been evaluated with respect to their impacts on either hard or soft costs (Gold et al. examined the perceived well-being of tenants in Elderly Persons Housing in Manitoba in 1985 and Chappell conducted an evaluation of the Manitoba Tenant Resource Coordinator Program in 1989). One of the few if not the only case control evaluation was carried out by Flett in her pioneering work that examined the utilization patterns and the impact of service delivery on the status of health and the quality of life of seniors living in public housing in 1976 (Flett et al, 1980).

1.1.2 Identification of Risk Factors

While institutionalization is not necessarily a negative outcome, there is enough research that shows it is not the preferred place of residence of most elderly people regardless of their health. Health experts in general and service providers are in agreement that "inappropriate" institutionalization is not desirable for either the individuals involved or for society at large. Thus, a number of researchers have identified and modified common risk factors related to a loss of independence among the elderly (putting them at risk for a crisis such as sudden institutionalization) (Forbes, 1987; Shapiro and Tate, 1985, 1988; and Davis, 1992). Many of these risk factors are derived in part from measures of functional health and service utilization. Common risk factors include:

- living alone
- being over the age of 85
- speaking a language other than english or french
- reporting poor health (self-rated)
- reporting a combination of health conditions
- having some form of mental impairment
- incontinence*
- needing help with 3 or more activities of daily living (ADL)*
- receiving no help with adls*
- accessing no outside social services*
- staying in a hospital over night during the last year*
- using an emergency department during the last month*
- not knowing where to get help*
- absence of confidant

*derived in part from indicators of functional health and formal services use

These risk factors are summed to arrive at a composite risk score. This score is based on the premise that it is not any one factor that places a person at risk but rather a combination of factors. Thus, while the risk factors by themselves do not imply a direct causal relationship with a particular outcome, the more risk factors a person possesses (i.e., the higher the composite score), the more that person is at risk for a crisis occurrence. One of the significant contributions of this approach to identifying those elderly most at risk is that it considerably reduces the size of the group targeted for special attention or intervention.

More recently, researchers have used this same type of approach to identify predictors of successful aging. (Roos and Havens, 1991) In a 13 year follow-up of a 1971 sample of 3,573 individuals aged 65-84 in Manitoba (The Manitoba Longitudinal Study on Aging), Roos and Havens looked at a number of potential predictors of successful aging such as an individual's demographic, ethnic and cultural background, socio-economic characteristics, characteristics of the support network, mental status, satisfaction with life and several characteristics of health status. Successful aging was defined in terms of an individual

retaining the ability to function independently. Those who age successfully, according to the researchers, remain out of institutions, and do not have continuing input from a home health agency. They remain mobile and competent in all the activities of daily living and perceived their health to be fair or better. The researchers found that remaining independent was associated with a higher level of satisfaction with life in older age. These individuals also made markedly fewer demands on the health care system. Self–rated health was found to be a strong predictor of successful aging after controlling for age.

Studies such as the Manitoba research have implications for the evaluation of the quality of life of seniors living social housing. Given that the average length of tenancy of senior residents (and families in social housing) has been increasing over time, it is useful to measure known indicators of wellness such as self–rated health in order to provide an environment that maximizes healthy aging. Self–rated health is also correlated with functional ability and service use.

2.0 THE CONCEPT OF FUNCTIONAL HEALTH AND A DESCRIPTION OF ESTABLISHED INDICATORS

This section discusses the concept of functional health, its components and correlates. The general discussion is followed by a description of some established indicators of functional health.

2.1 The Concept of Functional Health

Functional disability has been adopted as a measure of health status for the past two decades. Its use has been embraced by clinicians, administrators, planners and policy-makers. Likewise, researchers from different disciplines - medicine, sociology, physiotherapy, economics and philosophy - converge on this approach for the measurement of health status. In addition, it has been used by at least eight countries[1] in an initiative to develop internationally comparable disability indicators as a measure of health status.(Flett and McWhinnie, 1978)

2.1.1 Definition of Functional Health

Before defining what is meant by functional ability, it is necessary to understand the basic concept of disability. Philip Wood has provided a helpful framework for the 9th revision of the International Classification of Diseases.(Wood,1975) His definition of impairment, handicap and disability are as follows:

Impairment describes an aspect of the status of an individual that reflects a departure from the norm. It is a generic term that embraces any disturbance of or interference with the normal structure and functioning of the body, including the systems of mental function.

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[1]Canada, United States, United Kingdom, France, Germany, Switzerland, Finland and the Netherlands.

Handicap reflects the value attached to an individual's status when it departs from the norm. It is the disadvantage that is consequent upon impairment and disability.

Disability describes a functional departure from the norm, and as such it mediates between impairment and handicap. It is the loss or reduction of functional ability and activity that is consequent upon impairment.

Within this framework, the loss of an individual's leg would be referred to as an impairment, his inability to climb stairs would be a disability while his inability to find employment would be considered a handicap.

The Canada Health Survey adopted a definition of disability which can be simply stated as "the effects of ill-health upon an individual's activity patterns" (Abelson, 1977). Within the context of the Organization for Economic Cooperation and Development (OECD) "Healthfulness of Life Project", disability was defined as "the behavioral consequences of the effects of ill-health essential to daily living". Both of these definitions are consistent with the concept of disability defined by Wood. These behavioral definitions of disability are particularly applicable for measuring the health status of the elderly as they suffer more functional losses than their younger counterparts when exposed to similar stresses, and ability to function independently accounts for significant aspects of their quality of life (Rosow et al, 1966; Spector et al, 1987; Branch and Meyers, 1987; Satariano et al, 1989).

Changing patterns of morbidity towards a higher prevalence of chronic conditions such as cancer, heart disease and arthritis have replaced infectious diseases as a major health problem in society today. The aging of our society also means that an increasing proportion will be afflicted with several chronic conditions concurrently. Given that epidemiological studies have demonstrated that people with the same chronic condition do not necessarily experience the same degree or type of function, (Haber,1971; Wan,1974; Nagi,1976) measures of functional status are particularly appropriate.

2.1.2 Benefits of Functional Health Measures

Benefits associated with functional health measures, in particular those which measure performance in usual activities of daily living, identified in the literature are listed below. These measures:

- take into account the integrated response of the human organism to biological, environmental and lifestyle factors (Katz and Akpon,1976; Branch and Myers,1987);
- measure a number of things simultaneously such as physical functioning on a physiological level, motivation on a psychological level, and dependency on a sociological level;
- enable performance or behaviour to be reported independent of diagnoses or treatment (Gilford,1988);
- allow comparisons in health status between groups in place, time and persons;
- have been used effectively as outcome measures (Sarianto, 1989; Crimmins and Saito, 1993);
- serve as an indicator of positive outcomes in aging (Guralnik, 1989);
- identify high risk groups;
- help in the determination of research and service priorities;
- facilitate the translation of dysfunction into service and resource requirements; and
- assist in the evaluation of policy and programs.

2.1.3 Measures of Functional Disability

Most of the research on indicator development began with severely disabled persons in institutions, and gradually progressed to patients discharged from rehabilitation hospitals. In the late 60's and 70's indicator research began to focus on the measurement of health status of the general population. Although there is some variability in the range of functions included in specific indices, there is remarkable agreement in the approach to measuring functional ability across surveys. Exhibit 2.1.3 lists the range of daily activities for which indicators have been developed. Building on the work of Katz, Ford, Moskowitz, Jackson, & Jaffe, (1963), most surveys include indicators of how well one can perform functions necessary to providing personal care or activities of daily living (ADLs). Ability to perform these personal care functions has been used frequently as an indicator of ability to live outside institutions.

Increasingly, surveys are also including indicators of abilities necessary for maintaining an independent residence or instrumental activities of daily living (IADLs), also often referred to as domestic activities. (Flett, 1976; Branch and Jette, 1981; Lawton and Brody, 1969; Rosow and Breslau, 1966). Sometimes, the two sets of indicators are combined into one scale of functional ability.

More recently, based on the work of Nagi (1976), functions indicating ability to function in the wider world outside the home (AWWs) have also been included in community-dwelling surveys (Harris et al, 1989). These functions include such higher-order activities as walking distances and climbing stairs which typically require more stamina and range of motion than the above two groups.

It is clear from the citations above that functional ability is not unidimensional as originally postulated. Indeed, the most recent research (Fitzgerald et al, 1993) suggests that there are three reliable, unidimensional scales that emerged from the items taken from the original

Exhibit 2.1.3: Range of Detailed Acitivities by Type of Functional Ability

- personal care activities of daily living (ADLs)

  - bathing or showering
  - dressing
  - eating
  - get in/out bed/chair
  - walking
  - getting outside
  - using/getting to toilet

- instrumental activities of daily living (IADLs)

  - preparing own meal
  - shopping for groceries and personal items
  - doing laundry
  - doing light and heavy housework
  - using the telephone
  - ability to handle finances
  - responsible for own medication
  - ability to use public transportation
  - signing one's name
  - locking the door
  - turning faucits and lights on and off

- activities necessary to operate in the wider world outside the home (AWWs)

  - walking quarter of mile
  - walking up ten steps without rest
  - standing or being on feet for two hours
  - sitting for 2 hours
  - stooping, crouching, kneeling
  - reaching up over head
  - reaching out as if to shake hands
  - using fingers to grasp
  - lifting or carrying 10 pounds

ADLs (Katz and Apkom, 1976) and IADLs (Lawton and Brody, 1969) (such as those listed in Exhibit 2.1.3). The first, called basic ADL, consists of five items from the traditional ADL, including the need for help with bathing, dressing, getting out of bed, walking and toileting. The second scale is the household ADL consisting of four items taken from the traditional IADL, including the need for help with such household chores as meal preparation, shopping, and light and heavy housework. The third scale is called the advanced scale, or cognitive ADL, and consists of three items taken from the original ADL and IADL. These relate to the need for help with managing money, using the telephone and eating. These findings are consistent with the hierarchical relationship between ADLs and IADLs established in the literature (Spector et al, 1987), and work that has split IADLs into sub-scales (Jette, 1987).

2.1.4 Correlates of Functional Disability

It has been demonstrated that both ADL and IADL disability measures are strongly related to physical health status. In a longitudinal study of physical ability in the oldest-old (those 80 years or over living in the community), Harris and colleagues found that continued physical ability correlated with the following factors: no cardiovascular disease, no arthritis, body mass index less than the 75th percentile, younger age and higher education. This information is useful for program planners and policy-makers as factors amenable to preventive programs are identified. In addition, it highlights the need to consider the heterogeneity of the oldest-old in formulating programs aimed at prevention and postponement of disability (Harris et al, 1989).

Dementia is an affliction of the old and a critical predictor of the need for respite care for family caregivers, and ultimately for institutional care. (Gilford, 1988, Flett, 1989). The relationship between functional disability and cognitive impairment has been established as well as the identification of activities most sensitive to cognitive impairment. This research also found that the greater the number of limitations that individuals have that are indexed on advanced ADLs (using the telephone, managing money and eating), the more poorly they do on standard assessments of cognitive function (Fitzgerald et al, 1993).

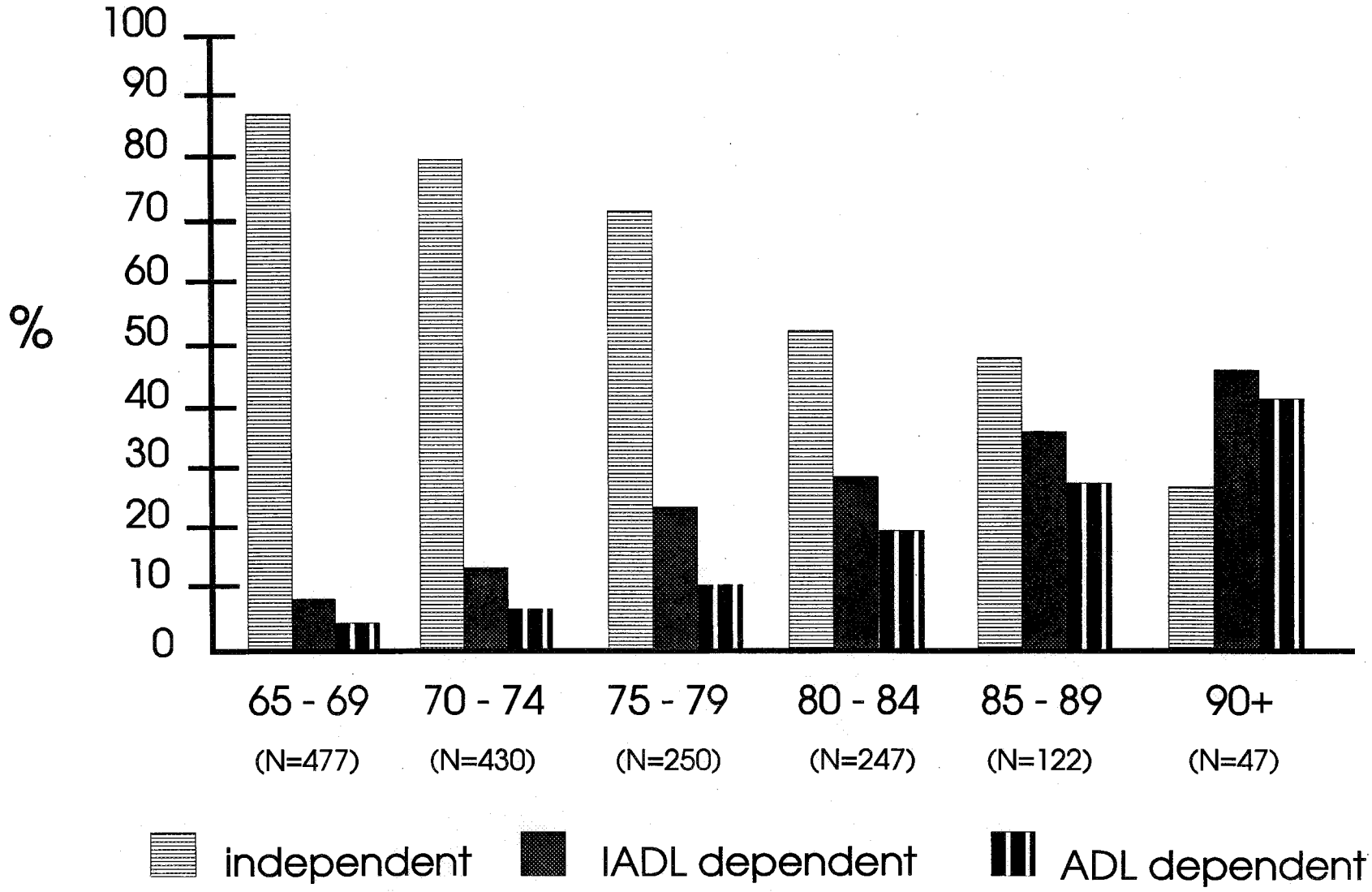
In this section, it is also important to underscore the hierarchical relationship between ADL and IADL functions. The use of an index of ADL alone to measure disability in the general population will capture only those individuals with severe functional limitation (about 2–8 percent of the elderly population depending on the items used). The inclusion of an IADL index would increase sensitivity to the upper range of disability, as illustrated by Figure 1. Spector and colleagues (1987) demonstrate that ADL and IADL functions can be combined into a hierarchical scale. The resulting scale demonstrated a strong relationship between levels of dysfunction and age, and between dysfunction and the following: death, decline in function, and the likelihood of hospitalization.

2.2 Established Indicators of Functional Health

The most widely used and best standardized measure of ADLs is the Index of Independence in Activities of Daily Living, also known as the Katz ADL Scale (Katz et al,1963). It assesses six activities: bathing, dressing, going to the toilet, transferring from bed or chair, continence and feeding (Exhibit 2.2.1). A person's ability to perform each of these is measured and is related as (1) one totally independent; (2) requiring mechanical assistance; (3) requiring personal assistance; or (4) unable to do the activity. Other ADL scales include these activities and others such as grooming and walking. Some researchers treat all mobility–related functions as a distinct area of functioning outside the ADLs.

IADL scales have a wider range of activities than the ADL scales. Although there is some consensus concerning the most important ADL items to measure, there is less agreement about IADLs. The Philadelphia Geriatric Centre Instrumental Activities of Daily Living Scale (Lawton and Brody, 1969) includes a person's ability to shop, handle finances, use the telephone, take medication, prepare meals, and do laundry and housework. The OARS Instrumental ADL Scale (Duke University, 1978) includes these activities plus use of public transportation. The Performance Activities of Daily Living Scale (Kuriansky and Gurland, 1976) include telling time, signing one's name, locking the door, and turning faucets and lights on and off.

Fig. 1 Distribution of age - specific level of function



Source: (Spector, W.D., Katz, S., Murphy, J.B., & Fulton, J. P., (1987). "The hierarchical relationship between activities of daily living and instrumental activities of daily living." Journal of Chronic Diseases, 40, 481-489.

Exhibit 2.2.1 **Index of Independence in Activities of Daily Living**

Independence means without supervision, direction, or active personal assistance, except as specifically noted below. This is based on actual status and not on ability. A patient who refuses to perform a function is considered as not performing the function, even though he or she is deemed able.

Bathing (sponge, shower, or tub):
Independent: assistance in bathing a single part (as back or disabled extremity) or bathes self completely.

Dependent: assistance in bathing more than one part of body; assistance in getting in or out of tub or does not bathe self.

Dressing:
Independent: gets clothes from closets and drawers; puts on clothes, outer garments, braces; manages fasteners; act of tying shoes is excluded.

Dependent: does not dress self or remains partly undressed.

Going to toilet:
Independent: gets to toilet; gets on and off toilet; arranges clothes, cleans organs of excretion (may manage own bedpan used at night only and may or may not be using mechanical supports).

Dependent: uses bedpan or commode or receives assistance in getting to and using toilet.

Transfer:
Independent: moves in and out of bed independently and moves in and out of chair independently (may or may not be using mechanical supports).

Dependent: assistance in moving in or out of bed and/or chair; does not perform one or more transfers.

Continence:
Independent: urination and defecation entirely self-controlled.

Dependent: partial or total incontinence in urination or defecation, partial or total control by enemas, catheters, or regulated use of urinals or bedpans.

Feeding:
Independent: gets food from plate or its equivalent into mouth (precutting of meat and preparation of food, as buttering bread, are excluded from evaluation).

Dependent: assistance in act of feeding (see above); does not eat at all or parenteral feeding.

For each area of functioning listed below, check description that applies. (The word "assistance" means supervision, direction of personal assistance.)

Bathing - either sponge bath, tub bath, or shower:

O	O	O
Receives no assistance (gets in and out of tub by self if tub is usual means of bathing)	Receives assistance in bathing only one part of body (such as back or a leg)	Receives assistance in bathing more than one part of body (or not bathed)

Exhibit 2.2.1 **Index of Independence in Activities of Daily Living (Continued)**

Dressing - gets clothes from closets and drawers - including underclothes, outer garments, and using fasteners (including braces, if worn):

O	O	O
Gets clothes and gets completely dressed without assistance	Gets clothes and gets dressed without assistance except for assistance in tying shoes	Receives assistance in getting clothes or in getting dressed, or stays partly or completely undressed

Toileting - Going to the "toilet room" for bowel and urine elimination; cleaning self after elimination and arranging clothes:

O	O	O
Goes to "toilet room", cleans self, and arranges clothes without assistance (may use object for support, such as cane, walker, or wheelchair and may manage night bedpan or commode, emptying same in morning).	Receives assistance in going to "toilet room" or in cleaning self or in arranging clothes after elimination or in use of night bedpan or commode	Does not go to room termed "toilet" for the elimination process

Transfer:

O	O	O
Moves in and out of bed as well as in and out of chair without assistance (may be using object for support such as cane or walker)	Moves in or out of bed or chair with assistance	Does not get out of bed

Continence:

O	O	O
Controls urination and bowel movement completely by self	Has occasional "accidents"	Supervision helps keep urine or bowel control; catheter is used or is incontinent

Feeding:

O	O	O
Feeds self without assistance	Feeds self except for getting assistance in cutting meat or buttering bread	Receives assistance in feeding or is fed partly or completely by using tubes or intravenous fluids

Source: S. Katz, A.B. Ford, R.W. Moskowitz, et al. 1963. Studies of illness in the aged. The index of ADL: A standardized measure of biological and psychosocial function. Journal of the American Medical Association 185:914-919. As cited in OTA Task Force (1988).

More recently functions indicating one's ability to function in the wider world have been included in studies of community-dwelling populations (Harris et al, 1989; Guralnik and Kaplan, 1989). These functions are considered to be higher order functions requiring more stamina and range of motion. (Saito, 1993)

In Canada several national surveys (Canada Fitness Survey, The Health and Activity Limitation Survey, Canadian Health Disability Survey and some of the General Social Surveys) have measured functional disability using a common set of questions. The questions originated in the multi-national effort organized by OECD, which included both ADL and IADL functions borrowed from many of the instruments mentioned.

Collection of data related to specific types of disability (such as sight and hearing limitations) are not part of the ADL/IADL measures because they are health problems that may result in functional disability. Sensory problems are very prevalent among the elderly and have housing design implications that can substantially increase the functional capability of the older person. It is observed by Wilkins (National Health Information Council, 1991) that the assessment of sensory problems require many questions. Thus, he suggests that this task be left to specialized disability surveys. Recognizing the implications of sensory problems for design, it may be prudent for CMHC to include questions in this area. Exhibit 2.2.2 provides standard questions that have been tested over time to measure sight and hearing limitations.

EXHIBIT 2.2.2 Questions for Measuring Sight and Hearing Limitations

1. Do you have any difficulty hearing what is said in a conversation with one other person?

   yes, has difficulty...
   no difficulty

2. Do you have any difficulty hearing what is said in a group conversation with at least three other people?

   yes, has difficulty...
   no difficulty

3. Are you able to hear what is being said over the telephone?

   yes, with an aid
   yes, without an aid
   no, not able

4. Do you have any difficulty seeing ordinary newsprint, with glasses or contact lenses if usually worn?

   yes, has difficulty
   no difficulty

5. Do you have any difficulty clearly seeing the face of someone across a room (that is from 4 metres/12 feet), with glasses or contact lenses if usually worn?

   yes, has difficulty
   no difficulty

6. Have you been diagnosed by an eye specialist as being legally blind?

   yes
   no
   don't know or not sure

Source: Statistics Canada. Health and Activity Limitation Survey - 1991 Users Guide. Appendix G

3.0 DEFINITION OF FORMAL SERVICES AND A DESCRIPTION OF ESTABLISHED INDICATORS

This section defines formal services and describes the most common indicators of formal services use in the context of gerontological research. The established indicators described in this section represent the ideal (if resources were unlimited) in terms of what could be collected to answer CMHC's question about how the provision of formal services and amenities can enhance the lives of social housing residents. Given that the ideal is always difficult to achieve, the recommendations presented in Section five represents a list of the key indicators based on our own (and our colleagues) research in these areas (functional health and formal services use) using primary survey methods and secondary analysis.

3.1 Definition of Formal Services

For the purpose of this research, formal services are defined quite broadly as those services and amenities provided by community based or institutionally based health and social service agencies and organizations that give assistance on a short or longer term basis to elderly persons experiencing difficulties with activities of day to day living. These services can be delivered in two ways – to the individual in her or his own home; or by the individual accessing the service outside his or her home. In the context of social housing, formal services can also be offered on site directly by the housing agency. Generic types of formal services that are delivered to persons in their own homes include:

- in home nursing and related professional health care
- home making services that assist with light housekeeping, meal preparation and laundry and personal care
- home maintenance and repair services to help with minor repairs or chores such as lawn cutting, snow shovelling etc.
- meals on wheels
- friendly visiting services
- grocery delivery/shopping service

Generic types of formal services that are usually accessed outside the home are:

- physician services, including specialists
- dentist
- emergency care
- hospital care (inpatient)
- day programs (such as Alzheimer's day programs which include recreational activities and some health related services)
- over night respite care (beds set aside in an institution for temporary care)
- foot care clinics
- eye clinics
- dental clinics
- counselling services
- physiotherapy services
- occupational therapy services
- nutritionist services
- pharmacist services
- support groups and workshops that are particular to a health condition or concern (i.e. widowhood)
- general health education classes or workshops
- seniors centres for recreational purposes
- religious services
- meal service in a congregate setting (wheels to meals)
- transportation (public, special, escorts)
- information and referral services

In studies of seniors living in a social or congregate housing setting, amenities and services could include:

- the lounge for recreational purposes
- the lounge for health related services (i.e. foot clinics)
- the lounge for special workshops (health prevention discussions)
- a congregate meal program or on–site restaurant (if applicable)
- tenant association activities
- laundry room
- van service
- security check services (i.e. daily or night time checks)
- emergency response system
- tenant support services (information, assistance with landlord related difficulties etc.)

Other common amenities preferred by the elderly (ideally should be located in close proximity) include:

- the library
- an indoor shopping mall
- a hairdresser/barber
- convenience store
- a bank
- LCBO, beer store
- a grocery store

The availability and accessibility of these services may vary from community to community as does the specific name of the service. As a result, not all studies include such an exhaustive list. The types of formal services that have been consistently identified as critical to aging in place include transportation, security systems or services, in-home nursing or personal care services, home making or housekeeping services, home maintenance or chore services, meals services, senior centres and information and referral services. (see Davis, C., 1991 for a list of studies that have discussed the most needed services)

The provision of on-site services by housing agencies also varies by housing agency and by province. Almost all government housing agencies provide on-site maintenance services and most have a superintendent on-site. Increasing numbers of housing providers also have staff that provide tenant assistance in some form or another. In Ontario, for example, Community Relations Workers are available to all tenants in most assisted housing portfolios. These workers provide information to tenants about needed services, assist in tenant/landlord support and often facilitate the activities of tenant associations. Some buildings in Ontario and elsewhere also have "security tenants" who live on-site and assist with security related aspects (such as checking to make sure all outside doors are locked at night) during times when other building staff are not available.

3.1.1 Why Study Formal Services Use

Deciding which aspects of formal services to measure depends on the purpose of the research – what it is you want to know. There are a number of reasons why many studies on the elderly have focused on topics that included formal services use measures. These reasons were well summarized by Stachenko of the Health Services Directorate, Health and Welfare Canada, in a workshop and reproduced in a recent document (Stachenko, 1991). The author gave four reasons why information on formal services could be useful in the context of measuring the health and well-being of Canadians.

1. Such information (formal services use) may be useful for program formulation and evaluation. In particular data are needed to provide a baseline measure of usage of a comprehensive range of health and social services. Data also serve to compare service utilization patterns among different groups and to monitor trends of utilization over time.

2. Information on utilization is useful to develop priorities for professional education.

3. Information assists in providing directions for the organization of health services.

4. Information serves to establish priorities for quality assurance programs.

Stachenko makes the point that the aging of the Canadian population, increasing prevalence of chronic disorders and new patterns of morbidity will call for different health care and support services over the years to come. This, together with the growing importance of consumerism, will put the spot-light on the importance of service responsiveness to consumer needs. Respite services for families, home services and telephone network services are examples of the types of supports that are needed at the community level. Addressing comprehensively the issue of service responsiveness will require the development of needs indicators with special attention to high risk and under-serviced individuals and groups.

3.1.2 Different Measurement Areas of Formal Services Use

To answer CMHC's research questions concerning which types of services and amenities enhance the well-being of social housing residents and the extent to which they are now being offered and how well, at least three types of measurement areas would ideally have to be included in the research instrument(s). These measurement areas are:

1. Utilization patterns: Identification of need, use and gaps

   - the different types of services used in a given time period
   - the types of service providers involved
   - reasons why services are used (i.e. help with ADLs)
   - where services are provided (in home, outside home)

2. Volume statistics: Identification of hard costs

   - number of visits in a given time period
   - number of service hours used

3. Quality of services: Identification of soft costs

   - satisfaction with services and providers
   - was service what was needed (the right kind of help)
   - was enough help given or too much help
   - was service provided when it was needed (hours and days)

These measurement areas relate to all modes of services provision – community agencies, institutionally based providers as well as the provision of on-site services by the housing agency itself such as the maintenance staff or tenant support worker.

3.1.3 Determinants of Formal Services Use

The study of formal services use is not carried out in isolation. The determinants of service utilization has been categorized in terms of predisposing, facilitating and need factors (Stachenko, 1991):

- predisposing factors include: socio–demographics (age, sex, education etc.) and past history of disease, both personal and familial;
- facilitating factors include patterns of past utilization of services in general and lifestyle factors; and
- health need factors refer to perceived health status, personal disability, number of chronic conditions and health satisfaction.

Recent studies have linked formal service use specifically to variables such as age, health, sex, marital status and income (Davis, 1992; Thompson & McFarland, 1989) and people's health care beliefs (Segall & Chappell, 1988). American researchers have been interested in the effect race has on the use of health services (Mutchler & Burr, 1991; Haynes, 1991) An individual's functional health – either on its own or in correlation with other factors – is a strong predictor of the need for and use of formal and informal services. (Denton and Davis, 1986, Harlow et al., 1987; Tennstedt et al., 1990) Recent studies have also found self–perceived health to be a significant associate (Davis, 1992). Although this paper focuses on formal services, it is important to note the links between formal services and informal sources of help, since it is the latter that is reported most frequently by the elderly.

The Relationship Between Formal Services and Informal Assistance

A number of researchers have focused on the relationship between formal and informal help and three theories have been put forth (Cantor, 1991, Chappell, 1987, Denton, 1992). The

first theory about the relationship between formal and informal care is called the "substitution hypothesis" which says that there is a preference order of caregivers by the elderly starting with informal sources such as the spouse, then children, then friends and neighbours. Formal services are accessed only when informal sources are not available. A second theory is the "task specificity model" which demonstrates that some forms of assistance are better provided by informal caregivers and others by formal organizations. Some researchers have found that the two systems of care (formal and informal) are not correlated which implies that greater or less use of informal support does not predict greater or less use of formal services (Chappell, 1991). Finally, the third theory about the link between formal and informal services implies a "complementary" relationship between formal and informal care (Edelman and Hughes, 1990; Chappell and Blandford, 1990). In this model, formal care is accessed when either the informal network is not available or when there is a type or level of need that the informal care giver cannot meet.

Denton recently tests all three theories in her work (1992) and finds support for both the substitution and complementary functions of formal care. The analysis suggests that the level of care required is an important factor in specifying the relationship between formal and informal care. Elders experiencing difficulties with personal care as well as many of the instrumental activities of daily living (IADL) (yardwork, housework, shopping, meal preparation etc.) are more likely to be cared for by a combination of informal and formal caregivers. On the other hand, elders who do not receive help with personal care activities, but who receive assistance with their IADL are receiving that help from either their informal care network or from formal caregivers. (Denton, 1992)

Research has shown that formal care givers often become confidants particularly to elders without family nearby. A recent Ottawa study (Davis, 1992) found that homemakers provided "friendly visiting services" in addition to their regular duties. The Patterns of Support Study (1986) revealed the importance of the maintenance staff and other housing personnel as a source of personal assistance to many elderly tenants living in assisted housing. Staff were

often called upon to perform small tasks that were not defined in their job description. As well, depending on the personal style of individual housing managers, some were identified as being particularly supporting to tenants' needs (other than shelter).

The research looking at the links between formal and informal care and other studies that have focused on the predictors and correlates of formal care use have implications for CMHC's interest in the association of the provision of services and amenities and the quality of life of seniors living in social housing. For target groups such as the elderly living alone and in possible social isolation, the availability of informal care givers and the ability to access formal services when needed are critical issues.

3.2 Established Indicators of Formal Services Use

For the purpose of our discussion of the indicators of formal services use, two types of services are considered: (1) traditional acute medical services such as physician and hospital visits; and (2) community health and social services that are provided either in the home or in the community at large. To get a complete picture in terms of evaluating the impact these services have on the health and well-being of individuals, it is important to include indicators of the three measurement areas (utilization patterns, volume statistics and quality of services) of both of these types of formal services.

3.2.1 Medical Services

Indicators of the use of medical services and the related measurement areas have been well established in population based large sample health surveys in both Canada and the U.S.A. (For a description of Canadian surveys and the indicators used, refer to: Health and Welfare Canada, User's Guide to 40 Community Health Indicators., 1992 and National Health Information Council, Federal Data Availability Report., 1991) The same indicators have also

been used in many community level sample surveys dealing with health related issues (recent Ontario community surveys have been conducted in Guelph, Ottawa, Kingston, Toronto, Hamilton to name a few). The medical services indicators that are collected in these types of surveys include:

physician visits (including or separating out specialists such as internists, podiatrists, optometrists, psychiatrists etc.)

- contact (seen at least once in a given time period)
- volume (number of visits in a given time period)
- location (office, ambulatory centre, hospital emergency or out–patient)
- satisfaction with services*

visits to other health practitioners (varies but can include or separate out nurse practitioner, physiotherapists, occupational therapists, nutritionists, psychologists, dentists, pharmacists)

- contact (seen at least once in a given time period)
- volume (number of visits in a given time period)
- satisfaction with services*

hospital separations

- over night stays (number of overnight stays in a given time period

emergency visits

- contact (visited at least once in a given time period)
- volume (number of visits in a given time period)

*collected in some community based health surveys only

3.2.2 Community Health and Social Services

Indicators of the use of community health and social services are grounded in gerontological research. There are literally hundreds of needs assessment tools that have been used by researchers in the field of aging. One of the best known and most widely referenced is the Older Americans Resources and Services (OARS) multi-dimensional functional assessment questionnaire. (Havens, 1984) Designed during the mid-seventies at the Centre for the Study of Aging and Human Development at Duke University (Pfeiffer, 1975), the OARS model was developed by a multi-disciplinary team of geriatric researchers, clinicians and service providers. Although the team's initial motivation was to study issues of alternatives to institutionalization, the model subsequently developed is a general one suitable for program evaluation, needs assessment and resource allocation decisions. (George et al., 1985) Many researchers (including the authors of this paper) have successfully utilized components of the OARS model in their own research since it lends itself well to modifications and streamlining while retaining respectable levels of reliability and validity (Kane and Kane, 1981).

The OARS questionnaire is divided into two sections, corresponding to the first two elements of the OARS model: (1) the Multidimensional Functional Assessment Questionnaire (MFAQ), and (2) the Services Assessment Questionnaire (SAQ). It is the latter component that will be discussed here. The original SAQ identified twenty four generically defined health and social services similar to those listed above in section 3.1. (see Exhibit 3.2.2) What SAQ recognized was the need to obtain information about the amount, type and source of these services used by older adults. The health and social service use indicators that have found their roots in models such as OARS and continue to be expanded/modified in studies of the need for and use and evaluation of services for seniors are:

- awareness about the availability of a list of particular agencies or types of service providers (generic or specific to a community)
- contact with each agency or service provider listed in a given time period
- type of service provided by each agency or service provider accessed

- number of times each agency or service provider accessed in a given time period
- who in the household, the service was for
- reason why each agency or service provider was contacted
- where service was provided (in building, in apartment, outside building)
- length of time service has been provided since access was initiated
- (for in home help) how long is service provided during each visit
- cost of service to user
- was service right kind of help (was need met)
- how was service arranged
- satisfaction with the service

No single study includes all of these indicators. The recommended indicators commonly found in most studies are given in Section five.

Exhibit 3.2.2

OARS ORIGINAL LIST OF GENERIC SERVICES

1. Transportation
2. Social/recreational services
3. Employment services
4. Sheltered employment
5. Educational services – employment related
6. Remedial training
7. Mental health services
8. Psychotropic drugs
9. Personal care services
10. Nursing care
11. Medical services
12. Supportive devices and prostheses
13. Physical therapy
14. Continuous supervision
15. Checking services
16. Relocation and placement services
17. Homemaker–household services
18. meal preparation
19. administrative, legal and protective services
20. Systematic multidimensional evaluation
21. Financial services
22. Food, groceries
23. Living quarters (housing)
24. Coordination, information, and referral services

Source: Pfeifer, E. 1975. Multidimensional Functional Assessment: The OARS Methodology. Centre for the Study of Aging and Human Development, Durham: North Carolina.

4.0 METHODOLOGICAL ISSUES

This section describes some of the more critical methodological issues related to the measurement of functional health and formal services use of the elderly. Issues that will be discussed are:

1. issues affecting reliability and validity
2. methods of primary data collection and related issues
3. existing sources of secondary data – strengths and limitations
4. design strategies: pooled resources approach

4.1 Issues Affecting Reliability and Validity

4.1.1 Functional Health

A phenomenal amount of work has been done on the measures of functional disability. (Kane and Kane, 1981; Mangen and Peterson, 1984) Most have high validity and reliability properties. Katz ADL index is the most widely used, and standardized instrument. The Brody and Lawton IADL instrument also scores high on validity and reliability. Nevertheless there are biases and other issues that need to be considered in the selection and use of measures of functional disability in national surveys. These include:

- acute disability vs chronic disability;
- comparability over time;
- gender bias;
- sensitivity of the measures; and
- self–reported versus clinical assessment.

Acute disability vs chronic disability

For planning and epidemiological reasons it is important to distinguish the occurrence of disabilities of short duration in many individuals from the occurrence of disabilities of longer duration in fewer persons. The literature suggests that the occurrence of disability of long duration is defined as a presence beyond three months. (Flett and Mcwhinnie, 1978) According to Wilkins, this information is easy to collect from surveys, although it is probably less valid for proxy respondents compared to self respondents (National Health Information Council, 1991).

Comparability over time

Differences in method of administration, the survey context, and question wording can have a profound effect on the overall prevalence of disability (National Health Information Council, 1991). Awareness of these potential sources of bias is important to minimize their influence. For example, if a standard instrument is available and appropriate for the population being surveyed, it would be advantageous to use such an tool rather than to customize existing tools.

Gender bias

It has been suggested that the IADL, sometimes referred to as domestic or household tasks may be biased in favour of women. Men for example may score poorly on some of these items because they may not do them, if married. This issue has not been given much attention in the literature. Some researchers have dismissed this potential limitation of the IADL by stating that men most at risk are those who live alone and therefore, would score in the same way as women. Within the context of social housing for the elderly, this is not a major concern given that women living alone predominate.

Sensitivity of the measures

To capture the higher end of functional disability in community–dwelling populations, it is important that the scales selected include items from the IADL and AWW categories of functional disability. (identified in Section 2.1.3) Also, items that are known to be sensitive to cognitive impairment should be included, given the growing prevalence of dementia as our population ages.

Self–reported versus clinical assessment

The established ADL and IADL indices discussed here have been developed for respondent self–reported assessments. Researchers have found a minimum of 70% agreement between self–reported health and clinical assessments. Depending on the purpose of the survey, elderly respondents may either inflate or deflate their functional ability. (Hayes et al., 1992)

4.1.2 Formal Services Use

There are several methodological issues related to the reliability and validity of the indicators of formal services use. Defined and discussed by a variety of researchers (Davis, 1989; Fillenbaum, 1985; Havens, 1984; Wolinsky & Johnston, 1991), these include:

- the recall period of older adults;
- differences between respondent provided data and agency records on the use of services;
- the availability of and access to providers and services in different communities; and
- recipient and provider confusion about who does what.

Respondent recall

The concern with respect to respond recall is the accuracy one can place on respondents being able to recall events during a certain time period – for example, the typical time frame given in most surveys is contact during the last year (Wolinsky & Johnston, 1991). OARS uses 6 months as their recommended time frame. Depending on the types of data that is needed, a shorter time frame is sometimes used. For example, in a recent survey in Ottawa that was concerned with the day to day coordination of services going into seniors' buildings, the study used a daily audit approach for one week. This was because the level of detail required (i.e. exactly what day to day in–home service visits were made, length of each visit etc.) warranted the shorter time period. If the purpose of the question is to find out whether or not a particular provider was contacted, the reason for the visit etc. up to a year is considered a reasonable time frame. The ideal time frame also depends somewhat on the nature of the service in question. For instance, for services that most people typically only access once or twice a year such as the family doctor or a dentist, 12 months is an appropriate time period. However, in–home services such as home care, or community services such as visits to a community centre are more frequently accessed and lend themselves better to a recall period of one month. For respondents with memory recall disorders (which is correlated with age), a shorter period of recall (depending on the type of service – the last month, or the last 6 months rather than 12 months) or a proxy interview (with a significant other) is generally recommended. (Havens, 1984)

Differences between first hand information and agency data

An issue in service use research is the validity of respondent provided information about their use versus what the agency records contain. (Havens, 1984) Do respondents under or over–report use? There is not a lot of evidence available about this issue (unlike health status, where numerous investigators have tackled the issue of the reliability of self–reported health versus clinical records), however, experience with a recent survey of elderly tenants in an

Ottawa study concerning the use of services (Davis, 1992), found that the differences between what the tenants reported about who they saw and the frequency of contacts, length of contact etc. and what the agency records showed (for home support, Home Care and Meals on Wheels) were minimal. This was likely in part due to the research design which used a very short recall period of one week. In an earlier provincial wide study of the need for and use services by elderly tenants in public housing (Denton and Davis, 1986), service provider survey information about the patterns of use were also very similar to what was reported by the tenants sampled. The concern, however, that elderly residents living in public housing may understate their needs because they fear eviction (or potential applicants may not disclose health related difficulties because they are afraid they will not be accepted) has been documented (Carp, 1989) and should be considered in the interpretation of the results. Collecting the same type of information from more than one source (i.e. providers and tenants) or in different ways (quantitative survey complemented by individual case studies) are strategies that can be used to assess the extent to which respondent information may be biased.

Availability of and access to providers and services

Another issue that has to be taken into account when studying formal services use of residents in social housing are differences in the availability of and access to services in different communities. This issue has implications for large scale national surveys which strive for standard measurements. For instance, an assessment of well-being and how it is enhanced by the presence or absence of community based services may only be meaningful in a uniform and restricted geographical area. However, if there is concern about whether all persons with the same health status receive comparable services regardless of geographical location or economic circumstances, then utilization information on a generic list of services that can be defined in a standard way, could be useful particularly if it can be linked to information on the availability of services and providers. (Fillenbaum, 1985)

Recipient and provider confusion about who does what

In order to determine the impact of services, it is necessary to define them very clearly. There is often confusion between the services received and the service provider. Since certain service providers may perform a variety of discreet services, it is important to be able to distinguish these services in order to get an accurate picture. Although this seems to be more of an issue for elderly recipients of services, providers have been found to have a certain level of unawareness about what other providers do as well (Denton & Davis, 1986; 1988).

4.1.3 Reliability and Validity of the OARS Model

Taking into account the types of issues discussed above, the OARS questionnaire has been found to relevant at both the individual (or clinical) and population levels. Tests of reliability and validity have been undertaken in numerous settings and many articles have been written about these tests and their results. OARS and its derivatives have been tested for content validity (the extent to which items included in a test cover the desired range of situations), concurrent validity (refers to the extent to which the findings from one test agree with the findings from another administered essentially at the same time), predictive validity (focuses on the extent to which a future condition can be accurately predicted from assessment–based information, construct validity (is concerned with whether the concepts the questionnaire is said to measure can be shown to make scientific and conceptual sense, and reliability (which is concerned with the extent to which the information obtained is accurate and dependable in terms of internal consistency of scales, and the stability of the information obtained. (Ernst & Ernst, 1984; Fillenbaum and Smyer, 1981; Fillenbaum, 1985; Jette, 1987; Kane & Kane, 1981)

4.2 Issues Related to Primary Data Collection Methods

There are several issues worthy of discussion related to the collection of primary data on indicators of functional health and formal services use of the elderly. These are:

- appropriate types of primary data collection methods;
- timing of study;
- reducing respondent fatigue; and
- maximizing response.

4.2.1 Appropriate Types of Primary Data Collection Methods

There are essentially two major types of primary data collection methods: (1) quantitative survey methods using a face to face, telephone, self–administered approach or mixed mode approach, and (2) qualitative methods such as case studies, focus groups, ethnographic interviews etc. While researchers have traditionally tended to use one method or another, current thinking is in the direction of integrating these methods. (Steckler et al, 1992) For instance, indepth, small group interviews are often instructive in the interpretation of the results of larger broad brush surveys.

Most studies on functional health and formal services use have employed a survey approach. While face–to–face interviews was once the preferred method of the three major survey approaches for studying the elderly, telephone and self–administered surveys have become more popular in recent years for a number of reasons. Rising costs of conducting face–to–face surveys and a decline in response rates have motivated researchers to explore other survey methods. At the same time, positive factors such as the increased accessability to the population via the telephone, improvements in telephone technology and telephone interviewing techniques, and the rapid and continued development of innovative and effective

methodologies for conducting both telephone and mail surveys have spurred on the use of these alternative methods (Herzog & Kulka, 1989) Evidence now suggests that contrary to common belief that the face-to-face method generated the best results, each of the survey methods have strengths and limitations. (Herzog, 1989) With respect to surveys of the elderly, a recent investigator found item non response to be no higher in their self-administered survey than others had found using the face-to-face approach. (Guadagnoli, 1992).

More and more researchers are favouring a mixed mode approach. Examples of mixed mode survey approaches are surveys that combine a self-administered mailed instrument with a telephone follow-up interview or a telephone contact followed by a mailed survey. Mixed mode approaches have been found to increase overall response rates (Hemmelgarn, 1991). They also have the potential to reduce systemmic biases. For instance, a telephone survey by its definition omits individuals who do not own telephones. A mixed mode approach that combines a telephone survey with a face to face interview or a mailed questionnaire reduces the potential bias introduced. A concern about the mixed mode approach, is whether further bias is introduced into the results because the methods of data collection are not standard. This issue was explored in a study of persons on social assistance that combined a telephone and mailed survey approach. Response pattern differences between the two modes were found to be minimal. (The Flett Consulting Group, Inc., 1991)

4.2.2 Timing of the Study

The timing of the study is an important consideration. Service provider records show trends in utilization patterns. Winter months are often harder for people with mobility related problems. As a result, higher use of some in-home and community services is made during these months. It is therefore, important to become aware of these trends and take them into account when interpreting the data.

4.2.3 Reducing Respondent Fatigue

Respondent fatigue is an issue in any survey, but more so for some elderly respondents. Optimal lengths for face–to–face interviews are about one hour and no longer than one and one half hours. Telephone interviews should ideally be designed to take no more than 20–25 minutes to complete and self–administered surveys that take longer than 15 minutes to fill out may result in a lower response rate. There are of course exceptions, and the nature of the subject matter often makes a difference. Health related surveys typically hold the respondents' interest longer than some other topics. Nevertheless, interviewers should be trained to be responsive to respondent fatigue. In the case of longer questionnaires, two visits or phone calls may be necessary to complete the survey.

4.2.4 Maximizing Response

Introducing methods that will reduce non response bias due to ill–health of a respondent is another issue. There are two approaches that work well. It is always best to try and get first hand information if at all possible. First, in those instances where respondents are reluctant or unable to carry out a telephone survey, for example, because they are hearing impaired or uncomfortable over the phone, a face–to–face interview may be the best solution. Second, if a respondent is totally incapable of completing the questionnaire, perhaps due to cognitive difficulties or extreme frailty, then a proxy method should be used (collecting information second hand from a close family member or friend).

4.3 Issues Related to Using Secondary Data Sources

There are a number of issues related to the use of secondary or existing data sources in a study of functional health and/or formal services use of residents in social housing. These issues include:

- the availability of the appropriate indicators;
- the availability of analyzable individual level data;
- issues concerning confidentiality; and
- issues related to data linkage.

4.3.1 Availability of Appropriate Indicators

There are several national and provincial data bases available that contain some individual level indicators on well-being as well as formal service utilization. Described in Appendix A and B, these are: the 1986 and 1991 Health and Limitation Survey, the 1991 Aging and Independence Survey, the 1991 General Social Survey, and the 1991 Ontario Health Survey. Some examples of how different indicators of functional health and formal services use have been arranged in the questionnaires used to create these data bases and others (some selected community based surveys) see Appendix C. In addition, Statistics Canada has developed a Health Indicators Database that is an aggregated file made up of indicators from different sources including the Census. (Attached in Appendix D).

After examining each of the instruments that were used to collect the information for each of these data bases, we have concluded that for CMHC's purposes, these sources can not substitute for primary data collection of indicators of functional health and formal services use. The existing data bases are either out of date, do not contain all of the necessary indicators or do not identify social housing residents. One of the recommendations made by the New Health Information Institute, Health and Welfare Canada (Stachenko, 1991) is that priorities for new population based data collection efforts should include home care and the utilization of the full range of community-based services. This has been identified as a major gap in existing data bases. There is some merit, however, in examining these data bases further for their potential to act as bench marks or to be used for comparison purposes with

4.3.2 Availability of Analyzable Individual Level Data

As already noted in section 4.3.1 above, most of the secondary data sources have collected individual level data. The purposes of these surveys, however, were quite different from CMHC's and the study parameters may not apply. For example, the HALS data contains information for persons who identified themselves as having at least one disability. This limits the type of analysis on any variable collected by HALS to "within group" comparisons – i.e. within different disability groups. If one's purpose was to look at predictors of wellness using the level of reported disability as the dependent variable, HALS would not be a suitable data set because it does not include a sample of the entire population (including people without any disability). The sample parameters of each of the available data sources would need to be closely examined in order to determine these types of limitations.

4.3.3 Issues Concerning Confidentiality

This is an ethical issue faced by researchers. Respondents to a survey are usually guaranteed complete confidentiality. The dilemma is when information that is collected for one purpose by one data collection agency is used by another agency or researcher for a different purpose. (This also becomes a concern when accessing client records held by service providers) This is particularly an issue in the case of data linkage described below. Data collection agencies such as Statistics Canada have established protocol to cover confidentiality concerns.

4.3.4 Data Linkage

Data linkage has good potential as a tool for assessing the associations among health status, health practices and social service utilization. There is also a potential to study how patterns of utilization of health services relate to morbidity and mortality. Subject to confidentiality provisions, existing national data sets with the potential to being linked to surveys at the current time include the national mortality data base, the Cancer Registry, hospital separation records and the Census. A recent examination of these and other data bases can be found in

The Child Health Study, Record Linkage Feasibility of Selected Data Bases: A Catalogue. (Royal Commission on New Reproductive Technologies, 1992). This report also outlined the strengths and limitations of this approach and the pre-requisites for success. Exploring the feasibility of using a data linkage approach to answer some of CMHC's questions in the long term is warranted. Recent population based data sets with some linkage potential that contain service utilization and/or functional health data for persons of all ages including seniors are: (see Appendix B for a full description)

- General Social Survey (GSS-6), 1991

  - linkage variables available are: surname, first given name, sex, marital status, year of birth, month of birth, day of birth, birth province or country, own place of residence, postal code, telephone number

- Hospital Medical Records Institute Data Bases (HMRI)

  - linkage variables available are: sex, year of birth, month of birth, day of birth, own place of residence, postal code, health insurance number, hospital identifier

- Manitoba Permanent Medical Statistical File

  - linkage variables available are: 1st 5 characters of surname, first initial, sex, year of birth, own place of residence, health insurance number

- OHIP Detailed Claims File

  linkage variables available are: surname, 1st 5 letters of first given name, sex, year, month of birth, old insurance number, data of service, fee schedule code, services and payments

- Ontario Health Survey (OHS) 1990

  - linkage variables available are: surname, first given name, sex, marital status, year, month, day of birth, birth province or country, own place of residence

- Saskatchewan Health Data Bases

  - linkage variables available are: surname, first given name, first initial, sex, marital status, year and month of birth, health services number

While these data do not target seniors alone, they all provide selected health and services related information for the older population. Thus, in addition to their linkage possibilities, they also have the potential to serve as provincial or in some cases, national, bench mark or comparison points on some variables such as hospitalization rates, use of physician services etc..

Data linkage is still relatively untried in Canada. There are concerns or disadvantages with the use of record linkage methodology which should be noted. Taken from The Child Health Study noted above, these concerns include:

- confidentiality issues and the ethical concerns associated with the use of administrative data for purposes other than those for which they were collected, the real or perceived invasion of privacy when dealing with sensitive information such as health;
- jurisdictional concerns, the resolution of which may require much negotiation if the data sets to be linked are not owned by the same agency, or controlled by the same legislation;
- communication problems that can occur if the data bases are not be physically in the same location;
- the time required in preprocessing to create compatible data sets can be costly;
- linkages using data sets based on samples, such as surveys, may not be able to capture rare events;
- studies based on record linkage are retrospective, examining past events;
- there can be a time lag in the availability of administrative files;
- although bias checks can be made for non-links, there remains the possibility of error due to false links; and
- the researcher may suffer from a problem of data overload, that is there may be too many directions to follow.

The confidentiality issue is an important one. Access to many data bases is already controlled by legislation such as the Privacy Act and the Statistics Act, and great care is taken to ensure that no personal information is released, only statistical tables. However, as the Task Force on Health Information has noted "even when full safeguards are in place, there is the risk of public perception of invasion of privacy with subsequent resistance to provision of data, in practice or via policy". On the other hand, they also note that health research is more easily recognized as for the "public good" than are other scientific disciplines. Carefully controlled record linkage could be acceptable, if the product was perceived to be in the public interest.

4.4 Design Strategies: The Pooled Resources Approach

While a longitudinal research strategy incorporating an experimental design (studying behaviours of two samples [experimental and control group] of people over time) may be the best strategy to answer CMHC's question about the impact formal services and amenities make on tenants' well-being, it would be prohibitive to try to implement such a strategy on a national scale. Shrinking resources in terms of dollars and research personnel have forced researchers – academic and government – to become more creative in their research designs and strategies. It is no longer feasible for one agency to take on the responsibility of funding and conducting a major research project. What is starting to become a norm, but is still not happening as much as it could be is the "pooled resource approach". This is where one or more agencies come together and pool financial and staff resource in order to increase the scope of the research project. The Patterns of Support of Study, (Denton & Davis, 1986) for example, involved four provincial ministries and one federal department. Many local studies are carried out with the pooled resources of two or more agencies with common interests in the results. Inter-governmental (different levels of government) as well as inter-ministerial (different departments) partnerships are possible. (Foley & Branch, 1987)

5.0 RECOMMENDATIONS

The recommended indicators of functional health and formal services use and the most appropriate methods to collect these indicators are summarized below.

5.1 Recommended Indicators of Functional Health and Formal Services Use

5.1.1 Recommended Indicators of Functional Health

A number of criteria, based on the stated research questions, were used for the selection of an index of functional health.

Criteria used for selection include:

- sufficient sensitivity to identify a broad range of disability (all three dimensions)
- proven reliability and validity
- collected in other studies
- easy to administer and understand
- has scaling properties (allows comparison among various housing stocks)
- was developed for similar study population
- minimal respondent burden

Three Dimensional ADL Scale

The recommended scale, shown in Exhibit 5.1.1, meets these criteria and has a number of additional strengths. First, this scale represents the latest state of the art in functional health measurement. Second, this scale is multi-dimensional and incorporates three dimensions of disability that are usually measured using different scales - basic activities of daily living, instrumental activities of daily living and advanced activities of daily living (which are correlated with cognitive impairment). Thirdly, this scale includes activities which will capture the different levels of disability ranging from mild to severe. Fourthly, this scale is short and simple to administer. Finally, within each activity being measured, the response categories are restricted to two levels which provides the information needed without the detail often present in these scales.

In addition to the scale displayed in Exhibit 5.1.1, it is recommended that a series of questions be included that measure sight and hearing limitations as this has implications for housing design. Exhibit 2.2.2 outlines the recommended questions. These are recommended because they are standard, well-tested questions used by HALS and others.

Exhibit 5.1.1 **Recommended Index of Functional Disability**

Introductory Statement

"Now I'd like to ask you about some of the activities of daily living, things that we all need to do as a part of our daily lives. I would like to know if you can do these activities without any help at all, or if you need some help to do them, or if you can't do them at all."

THE ACTUAL ITEMS	*THE RESPONSE CATEGORIES*
"Can you use the telephone..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you get to places out of walking distance..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you go shopping for groceries or clothes..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you prepare your own meals..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you do your housework..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you take your ownmedicine..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you handle your money..."	*0 = without help* *1 = either with some help, or completely unable to perform*

Exhibit 5.1.1 **Recommended Index of Functional Disability (Continued)**

"Can you eat..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you dress and undress yourself..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you walk..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you get in and out of bed..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Can you take a bath or shower..."	*0 = without help* *1 = either with some help, or completely unable to perform*
"Do you ever have trouble getting to the bathroom on time..."	*0 = no* *1 = either yes, or have a catheter or ostomy*

Source: J.F. Fitzgerald, D.M. Smith, D.K. Martin, et al. 1993. Replication of the multidimensionality of activities of daily living. The Journal of Gerontology. Vol 48, No. 1.

5.1.2 Recommended Indicators of Formal Services Use

Criteria used for Selection:

- types of formal services identified by the elderly (and younger adults with disabilities) as most needed -- proven reliability and validity
- types of formal services accessed the most by the elderly (and younger adults with disabilities)
- collected in other studies
- potential to improve tenants' quality of life

Key Types of Medical Services

- family physician
- emergency department
- in-patient hospital

Key Types of In-Home Health and Social Services

- visiting home maker services
- home maintenance or chore services*
- visiting nurses services (such as Home Care in Ontario)
- meals services (like meals on wheels)
- security check service
- emergency response system

Key Types of Community Health and Social Services

- special transportation service
- seniors' recreation centres
- seniors' day programs (could be located in a centre or in an institution)
- over night respite care

Key Types of Amenities Provided by the Housing Agency

- laundry room
- lounge, games room
- congregate meals/restaurant
- on-site office (for housing staff, other staff)

Key Types of Service Providers Employed by the Housing Agency

- housing manager
- maintenance staff or superintendent
- tenant support worker (i.e. community relations worker, security tenant)

* includes minor repairs and maintenance of the apartment such as changing light bulbs, fixing leaky faucets etc.

5.1.3 Important Indicators of Use Patterns

Criteria used for selection:

- addresses three measurement areas – utilization, volume and quality
- minimum information needed to evaluate whether or not formal services enhance well–being of tenants in social housing

Key Indicators of Use

- number of times service used in a given time period (the last one month, 6 months, one year)
- why service not accessed (not aware of service or no need for service)
- satisfaction with service (using a set of identified response categories – specific to type of service)

5.2 Study Design Options

5.2.1 Recommended Level of Analysis

- a national level study could identify the functional health of social housing residents as an indicator of health and well–being

- a national level study can also address the extent to which physical and social environments provided by social housing contribute to enhancing the functional capability of its residents

- a national level study can be designed to address question of the extent to which key services are being provided now to residents in social housing across the country (using a check list approach of generic services)

– a national study could also answer the question of how well (using a satisfaction index) services are being provided

– to fully address the question how much the provision of formal services (compared to other factors) contributes to the health and well–being of social housing residents, would require the collection of community specific service use indicators over time using an experimental or case control evaluation method

– A national focus could be maintained by targeting a number of communities with like characteristics (or depending on the design, targeting service rich and service poor communities)

5.2.2 Indicators Requiring Primary Data Collection

– community health and social services use indicators and indicators of functional health would require primary data collection as only minimal population based survey data is available on these types of indicators

– medical services use could be derived from secondary data – through linkage to provincial health insurance data bases and other population health surveys (see Appendix B); however, the cost and time involved in going this route at this time is still high; it would be preferable to collect these few indicators directly from respondents since reliability and respondent recall is quite good for these types of indicators

5.2.3 Appropriate Data Collection Instruments and Respondents

– we would recommend asking residents directly for information on utilization, volume statistics for medical services and quality of services; volume statistics for in–home services such as visiting nurses can be reliably collected from respondents only if the recall period is short (i.e. use during the last week, 2 weeks); therefore, when volume data over a longer period is required (for example to look at hard costs), we recommend retrieving these types of data from agency records. This is not an onerous task at the local level.

– we would also recommend use self–reported functional health indicators keeping in mind that in the past elderly tenants in public housing were thought to under–report their health for fear of eviction. This was not found to be the case in a recent survey of elderly residents in public housing in Ottawa, where interviewers' observations matched self–reported functional and physical health quite closely

– a mixed mode survey approach is recommended; one that we have used successfully many times is a self–administered questionnaire with a telephone or face–to–face follow–up of non respondents. Surveys are either mailed directly or distributed door to door by housing staff (this depends on the nature of the study and whether or not it is being carried out in partnership with local housing authorities.

5.2.4 Appropriate Control or Comparison Groups and Variables

– in order to compare the functional health and the extent of formal services use by residents in social housing (social housing would be further subdivided into its various components – public housing, Co–op etc.) to the extent of use by residents in non social housing settings, two comparison possibilities could be considered:

(a) you could select comparison private sector buildings in the same communities as the target buildings you are evaluating; buildings should be alike in their size, location, age distribution of tenants, modest income level building; the disadvantage with this approach is that it is often difficult to obtain the necessary information needed to make the building selection; Having access to names, addresses and telephone numbers of the tenants may be less problematic, since most city directories would have this type of information

(b) another possibility would be to compare the CMHC survey results in one province (such as Ontario) to a provincial health survey (such as the Ontario Health Survey); The Ontario Health Survey has a large enough sample to make community level (Health Unit jurisdictions) comparisons; You can also request special tabulations such as respondents who live in rental housing with a certain income level etc.; Depending on the number of screening variables, your comparisons may have to be made at the provincial rather than local level; The limitation of this approach is that your comparison variables are limited to those that are collected the same way in both surveys (see Appendix C for examples of how functional health and formal services use indicators are phrased in the Ontario Health Survey).

– the control variables would be the same as the key indicators collected in the survey of residents of social housing

5.2.5 A Case in Point: One Tenant Support Model Evaluation

It is difficult to recommend an overall approach or research design without knowing precisely what aspects of the major objectives are being studied. The example provided here is an evaluation design that is being proposed to monitor a services coordination and tenant support model being introduced into one or two buildings managed by the Ottawa–Carleton Regional Housing Authority. The model has two major components: (1) an on–site Visiting Homemaker Team; and (2) a Tenant Support Worker.

The major components (interventions) of the demonstration pilot are being implemented in two stages and the evaluation strategy has been designed accordingly. The first stage – the on–site Visiting Homemaker team is about to begin. It is anticipated that the second stage, the Tenant Support Worker, will begin by late summer or early fall, 1993 depending on the start of funding.

The evaluation will incorporate a pre and post program (model) research design and include a comparison building where the new model of service delivery (on–site Visiting Homemaker team and Tenant Support Worker) has not been implemented. This design will allow questions of attribution to be addressed. For example did changes on indicators employed to measure the impact of the service delivery model occur as a result of the introduction of the service delivery model or as a result of other factors unrelated to the service delivery model? The use of a control\comparison building will increase the level of confidence in the findings of the evaluation. The comparison building was selected by matching a number of building characteristics such as size, location and age breakdown of tenants.

Both quantitative and qualitative data gathering approaches will be used. A benchmark tenant survey has already been conducted in the experimental building to assess needs and measure tenant satisfaction with existing home support services. The evaluation design calls for a tenant survey in both the experimental and control buildings prior to the establishment of the Tenant Support Worker in the experimental building. This will serve not only as a source of benchmark data (Time 1) needed to address the impact of the introduction of a Tenant Support Worker into the experimental building but also as a mid–point assessment of client satisfaction of tenants receiving services from the on–site Visiting Homemaker team. Surveys will be conducted of the same tenants again eighteen months after the model has been put in place (Time 2). An eighteen month observation period is a long enough time period to test whether or not the introduction of the on–site Visiting Homemaker Team and the Tenant Support Worker made a difference. It is expected that outcomes such as shorter response times to emergencies, fewer inappropriate calls for emergency services, increased sense of security, increased flexibility in service delivery, increased access to services, increased awareness of tenant association will occur within this time frame. In addition, the evaluation will monitor the impacts of the service delivery model on tenants and their environment and will monitor the implementation and operationalization of the new service delivery model.

Questions relating to the impact of the model on the efficiency and coordination of the service delivery and tenant association capacity to make and carry out decisions for the whole building will be addressed, as well as the extent to which the model has been implemented as intended. This information will be collected using a number of different data collection strategies, namely: assessments by program administrators and providers, judgmental assessments using tenant ratings (incorporated in the tenant surveys), program data on tenants, and the opinions of administrators not directly involved in the pilot. Meetings and case conferences with providers in the building will be held quarterly to assess and implement any changes that may need to be introduced, as a result of monitoring information gained, into the implementation of the components of the model.

In order to evaluate the tenants' abilities to age in place, it is proposed that up to 12 high risk tenants be identified in each building at the outset of the evaluation period. These tenants would be followed closely over the eighteen months period using a case study approach. The purpose would be to describe in more detail how the components of the model affected (or did not affect) different types of individual high risk tenants.

Operational definitions and associated indicators will need to be developed to monitor changes effected as a result of the service delivery model, and incorporated into the data collection tools -- tenant surveys and administrator and provider interview guides. The Exhibit below (Exhibit 5.2.5) provides a preliminary list of indicators that will be collected grouped under the following headings: tenant impacts; impacts on social environment; impacts on physical facilities; impacts on efficiency of service delivery and implementation monitoring. These indicators will be finalized in the Program Logic Model to be developed prior to the start of the evaluation.

Exhibit 5.2.5

Evaluation Indicators

- ***tenant impacts***

  - availability of services when needed including evenings and weekends
  - response time between call for help and help received
  - degree of social isolation
  - sense of security
  - tenant attitudes towards building
  - tenant attitudes towards other tenants
  - satisfaction with resources available
  - knowledge of available sources
  - use of available services
  - access to help with minor household tasks (i.e. changing light bulb etc.)
  - increased sense of control over one's life

- ***impacts on social environment***

  - evidence of joint agency/tenant problem solving initiatives
  - decrease incidence of inter tenant conflicts
  - increased desire by tenants to use public places in building
  - greater awareness of tenant association
  - increased tenant membership in tenant association
  - increased tenant participation in tenant association
  - broader representation of tenants in tenant association and in executive positions

- ***impacts on physical facilities***

  - provider and tenant satisfaction with laundry facilities
  - provider and tenant access to laundry facilities
  - satisfaction with elevators
  - satisfaction with building and apartment maintenance

- ***impacts on efficiency of service delivery***

  - cost per client
  - direct time spent with tenants by providers in building – number of team meetings/case conferences
  - effectiveness of team meetings
  - number, time and type of emergency calls
  - increased provider job satisfaction of building team providers and other providers
  - increased flexibility to respond to tenants' needs
  - time spent in laundry room by providers
  - number of services per client
  - number and type of referrals to home making team, tenant support worker
  - number of home care assessments and reassessments per tenant and in total
  - adequacy of physical space provided for providers – building team plus other providers
  - existence of protocols/strategies to deal with emergency and reoccurring problem situations
  - narrative identification of efficiencies gained with substantiated evidence
  - adequacy of tenant support worker and home making team liaison

- ***implementation monitoring***

  - number and type of services provided (volume levels by agency)
  - direct and in kind resources allocated/donated by agencies (dollars, time, technical assistance etc.)
  - identification of barriers/obstacles to implementation
  - identification of factors that facilitate implementation
  - identification of unintended effects (negative and positive)
  - documentation of "surprises"
  - number and reason of call to tenant support worker

Major Data Sources

A number of data sources will be employed to collect the indicators listed in Exhibit 5.2.5. These are:

- tenant surveys and focus groups;
- interviews with front line staff (homemakers, OCRHA staff, tenant support worker);
- consultations with sponsoring agency representatives;
- agency client file data; and
- service utilization statistics (i.e Hospital separations, 911 calls).

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APPENDIX A

DESCRIPTION OF: HEALTH AND ACTIVITY LIMITATION SURVEY, AGING AND INDEPENDENCE SURVEY

Health and Activity Limitation Survey - 1991
User's Guide

Note of Appreciation

Canada owes the success of its statistical system to a long-standing cooperation involving Statistics Canada, the citizens of Canada, its businesses and governments. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

DESCRIPTION AND OBJECTIVES

The Health and Activity Limitation Survey (HALS) was designed to collect data for a national database on disability. HALS was first conducted after the 1986 Census of Population and repeated after the 1991 Census of Population.

HALS collects data on:

- the nature and severity of disabilities;
- the barriers that persons with disabilities face in household tasks, employment, education, accommodation, transportation, finances, and recreation and lifestyles;
- the use of and need for assistive devices; and
- the out-of-pocket expenses related to disability.

BACKGROUND

In May 1980, the **Special Parliamentary Committee on the Disabled and the Handicapped** was formed to investigate the needs and concerns of persons with disabilities in Canada and to report their findings to the House of Commons. In February 1981, the Committee published its findings in the report titled **Obstacles**. This report listed 130 recommendations that the Government of Canada could undertake to help remove the barriers that persons with disabilities face.

Through Recommendation 113, the Committee directed Statistics Canada "to give a high priority to the development and implementation of long-term strategy which will generate comprehensive data on disabled persons in Canada..."[1]

In response, Statistics Canada proposed to build a national database on disability - a database that would include all types of disabilities and all geographic areas in Canada.

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1 ***Obstacles**, Report of the Special Parliamentary Committee on the Disabled and the Handicapped, February, 1981 - page 131.*

To determine specific data requirements, Statistics Canada contacted representatives from federal, provincial and territorial departments, agencies, crown corporations, and associations of and for persons with disabilities. This initial consultation, however, was just the beginning. Realizing that data needs change over time, Statistics Canada continues ongoing discussions with its data users. After establishing the initial requirements, Statistics Canada began the following data collection activities:

(1) the **Canadian Health and Disability Survey (CHDS)** in October 1983 and June 1984 (for a description of CHDS, see Appendix E).
(2) the addition of a question on activity limitation and long-term disability on the **1986 Census of Population** long questionnaire.
(3) the **1986 Health and Activity Limitation Survey (HALS)** (for a description of the 1986 HALS see Appendix A).
(4) the addition of a question on activity limitation and long-term disability on the **1991 Census of Population** long questionnaire.
(5) the **1991 Health and Activity Limitation Survey (HALS).**

The remaining sections of this report describe in detail activity (5), the **1991 Health and Activity Limitation Survey.**

"... a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being."[2]

DEFINITION OF DISABILITY

"... a disability is any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being."[2]

The above definition of disability is based on the **International Classification of Impairments, Disabilities and Handicaps (ICIDH)**, a model developed by the World Health Organization.

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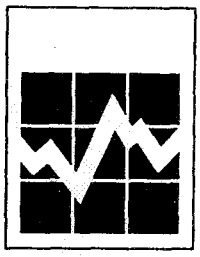
2 ***International Classification of Impairments, Disabilities and Handicaps**, World Health Organization, 1980, page 143.*



Ageing and Independence

Statistics Canada
Statistique Canada

Canada

AGEING AND INDEPENDENCE

Survey Highlights

In September 1991, Statistics Canada conducted a national survey designed to measure a broad range of characteristics that contribute to the quality of life and independence of today's and tomorrow's seniors. This first national survey on Ageing and Independence was sponsored by Health and Welfare Canada, the Seniors Secretariat, Fitness and Amateur Sport, Consumer and Corporate Affairs, Canada Mortgage and Housing Corporation, Veterans Affairs Canada, Secretary of State, and Communications Canada.

The Survey on Ageing and Independence consisted of 30 minute face-to-face or phone interviews administered to a representative sample of Canadians aged 45 and over. The sample of approximately 20,000 individuals was selected from respondents to the monthly Labour Force Survey. The sample included an equal representation of both tomorrow's seniors (i.e., those 45-64 years of age) and today's seniors (65 years old or over). Residents of the Yukon and Northwest Territories, residents of institutions, persons living on Indian reserves and members of the Armed Forces were not included in the survey as these populations are excluded from the Labour Force Survey coverage. The exclusion of institutions is particularly pertinent to this survey as an estimated 8% of Canadians in the 65 and older age group lived in institutions in 1991. For the population aged 80 or over, this percentage was estimated to be 24%.

The survey instruments were designed with the assistance of a group of researchers, interested in ageing issues, collectively known as "CARNET" (the Canadian Aging Research NETwork). The survey followed a conceptual model based on the premise that independent living in later life is influenced by three major factors: physical and mental well-being, social life and income. These factors are shaped in turn by life-course experiences such as education and work history. Other characteristics such as age, gender, marital status and area of residence also influence life circumstances.

The survey questionnaire gathered basic information on a wide range of issues and events significant to older Canadians:

- retirement and main activity;
- labour characteristics and retirement preparations;
- physical and social activities;
- well-being;
- health;
- life events;
- social support networks, family and friends;
- mobility and travel;
- accidents and safety;
- living arrangements and housing characteristics;
- income;
- financial situation;
- satisfaction with life.

Statistics Canada Statistique Canada

Canada

Individual demographic characteristics such as marital status, family structure, mother tongue and migration status were also collected to profile today's and tomorrow's seniors in Canada.

The following highlights present findings from some of the main themes of the survey. At the national level, the sample size permits the publication of estimates by gender for eight age groups: 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80 or over. Regional and provincial estimates can be tabulated for aggregated age groupings. A micro-data file is available and enables detailed analysis of characteristics and issues related to independent living. A more complete reporting of findings of the survey is scheduled for publication in the Fall of 1992.

For additional information on the survey or the highlights, contact:

Gilles Montigny (613-951-9731) or
Nancy Darcovich (613-951-4585)
Household Surveys Division
Statistics Canada

APPENDIX B

DESCRIPTION OF SELECTED SECONDARY DATA BASES WITH POTENTIAL FOR LINKAGE AND/OR COMPARISON

(Taken from the Child Health Study: Record Linkage Feasibility of Selected Data Bases)

Data Bases Described Include:

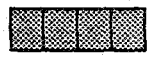
1. General Social Survey, Statistics Canada
2. Hospital Medical Records Institute Data Bases (HMRI), HMRI
3. Manitoba Permanent Medical Statistical File, Manitoba Health
4. OHIP Detailed Claims File, Ontario Ministry of Health
5. Ontario Health Survey, Ontario Ministry of Health
6. Saskatchewan Health Data Bases, Saskatchewan Laboratory and Disease Control Services Branch

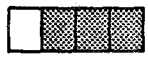
Still to come: HALS, Canada Fitness Survey

6.0 Data Base Summary Descriptions

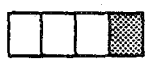
Summary descriptions of each data base are listed in this section in alphabetical order by data base name. These descriptions have been designed to give the user of this catalogue sufficient information to identify data bases which may be of interest, plus the address of the data base and the name and telephone number of a contact person who can provide more detailed information.

A consistent format which is fairly self-explanatory has been selected for these descriptions to aid comparisons between data bases. The name of the data base and its mailing address appear in the upper left hand corner of the first page. Opposite this, in the upper right hand corner, we have place a symbol to indicate the record linkage potential of the data base for those who wish to browse through this section without referring to the cross-reference charts. The shaded proportion of this symbol corresponds to linkage potential:


high record linkage potential


good potential


possible potential


currently poor potential

The body of the descriptions has been organized in point form under three major headings, general characteristics, technical characteristics and access, with sub-heading under each.

GENERAL SOCIAL SURVEY (GSS-6), 1991

General Social Survey
Statistics Canada
R.H. Coats Building
Tunney's Pasture
Ottawa, Ontario
K1A 0T6

General Characteristics

Purpose	• part of the General Social Survey Project, and is intended to collect information on health status, lifestyle, risk factors and health care utilization
Relevant Content	• health status, lifestyle and risk factors including alcohol and tobacco use, occupation and industry, occupational exposure to specific factors, plus health care utilization, demographics and socio-economic status
Target Population	• non-institutionalized Canadian population, 15 years of age and older, living in the ten provinces of Canada, excludes those living in institutions and in the Yukon and Northwest Territories
Coverage	• known biases, those without telephones who tend to be in the low income group, less than 3% of the population
	• sampled 1:2000, with a 80% response rate
	• weighting is required to be representative
	• the estimated proportion of the target population included in the household survey is less than .01%
Data Collection	• a repeated cross-sectional survey, with a longitudinal component, collected annually, focusing on health every fifth year
Time Period	• data available for 1991, with an unlimited retention period
Size	• 11,924 records in total
Unit of Analysis	• individual

Technical Characteristics

Data Storage
- in machine readable form as raw data

Previous Record Linkage
- a pilot link of longitudinal component to the 1990 General Social Survey, Cycle 5

Identifying Variables (approximate % of records)

- surname (84%)
- first given name (84%)
- sex (100%)
- marital status (100%)
- year of birth (100%)
- month of birth (97%)
- day of birth (97%)
- birth province or country (98%)
- own place of residence, province (100%)
- own place of residence, city (84%)
- postal code (94%)
- telephone number (100%)

Access

Policy
- established policy and procedure

Procedure
- record linkage requests to be submitted in detail, in writing, and subject to the approval of the Statistics Canada Data Linkage Committee, Chief Statistician, Minister, and possibly the Privacy Commissioner

Type of Access
- indirect, by Statistics Canada only

Resources Available
- software (GRLS), machine time and experienced personnel

Costs
- quote prepared for each request

Contact Person
- Ed Praught (613) 951-9180

HOSPITAL MEDICAL RECORDS INSTITUTE DATA BASES (HMRI)

HMRI
250 Ferrand Drive
P.O. Box 3900
Don Mills, Ontario
M3C 2T9

General Characteristics

Purpose
- administrative data base for hospital management purposes and creation of provincial morbidity data bases - Inpatient Data base and Day Surgery Data base

Relevant Content
- hospital morbidity including admission diagnosis, primary and secondary diagnoses coded using the International Classification of Diseases (ICD-9), primary and secondary procedures coded using the Canadian Classification of Diagnostic, Therapeutic and Surgical Procedures (CCP)

Target Population
- discharges from HMRI client hospitals (primarily acute care inpatients and day surgery visits), excludes emergency room visits, clinic visits and discharges from non-HMRI hospitals

Coverage
- known biases, in provinces with less than 100% participation, clients are more likely large teaching hospitals. The most significant gaps in the HMRI acute care database are in Manitoba, Quebec and Nova Scotia
- the estimated proportion of the target population included is 80% of total Canadian hospital discharges

Data Collection
- an ongoing data collection process, updated monthly with approximately 350,000 records added each month

Time Period
- data available 1979 to 1991, varying by province, with an unlimited retention period

Size
- 4.2 million records on average per year

Unit of Analysis
- event, discharges

Technical Characteristics

Data Storage
- in machine readable form as raw data for all years, and for the last two years as a software defined data base

Previous Record Linkage
- previous linkage to OHIP and Compusearch data bases

Identifying Variables (approximate % of records)

- sex (100%)
- year of birth (100%)
- month of birth (100%)
- day of birth (100%)
- own place of residence, province (100%)
- own place of residence, city (100%)
- postal code (100%)
- year, month and day of death (3%)
- place of death, province or country (3%)
- place of death, city (3%)
- Health Insurance Number (100%)
- hospital identifier (100%)

Access

Policy
- established policy and procedure

Procedure
- contact the HMRI, SNAP department - if access to sensitive data elements is requested, client completes a request form and submits it for consideration, and if identifiers are requested, also must be approved by the institution which provided the data to HMRI

Type of Access
- negotiated

Resources Available
- machine time

Costs
- have a fee schedule and a quote is prepared for each request

Contact Person
- Chris Helyar, Vice President (416) 429-1953
- Isabel Tsui, Manager Application Development (416) 467-3527

MANITOBA PERMANENT MEDICAL STATISTICAL FILE

Management Information Systems
Manitoba Health
Box 925
Winnipeg, Manitoba
R3C 2T6

General Characteristics

Purpose	• to provide a permanent statistical record of insured medical services by health care practitioners and to generate payments to providers of these services
Relevant Content	• physician claims for services rendered, procedures in the form of a Manitoba tariff code, and a 3-digit ICD - 9 diagnosis code.
Target Population	• permanent residents of Manitoba, excludes military and RCMP personnel and inmates of federal institutions
Coverage	• known bias, exclusions mentioned above
	• the estimated proportion of the target population included is approximately 85%
Data Collection	• an ongoing data collection process, updated monthly
	• approximately 1 million records are added per month
Time Period	• data are available for 1969-1992, with an limited retention period of thirty years
Size	• 13 million records per year, 286 million in total
Unit of Analysis	• events

Technical Characteristics

Data Storage	• in machine readable form as raw data file
Previous Record Linkage	• previously linked to the Hospital Abstract System and Population Database

Identifying Variables (approximate % of records)

- first 5 characters of surname (100%)
- first initial (100%)
- sex (100%)
- year of birth (100%)
- month of birth (100%, 1984+)
- own place of residence (100%)
- Health Insurance Number (100%, 1984+)

Access

Policy	• established policy and procedure
Procedure	• written application to the Access and Confidentiality Committee which makes recommendations on access to executive management
Type of Access	• negotiated
Resources Available	• software, machine time and experienced personnel available, or the Manitoba Centre for Health Policy and Evaluation at the University of Manitoba with special permission
Costs	• quote prepared for each request
Contact Person	• Guenter Bormann, Manager, (204) 786-7343

OHIP DETAILED CLAIMS FILE

Information Resources Branch
Ontario Ministry of Health
15 Overlea Blvd.
Toronto, Ontario
M4H 1A9

General Characteristics

Purpose	• to inform senior management of payment claims, trends, practitioner income levels etc. and to develop speciality profiles such as age and sex of patients etc.
Relevant Content	• physician claims for services rendered, procedure oriented includes treatments covered by OHIP such as artificial insemination, in vitro fertilization, gamete intrafallopian transfer, embryo transfer, intraperitoneal transfer, amniocentesis, chorion biopsy and ultrasound, some diagnoses, and demographics
Target Population	• entire population in Ontario, estimated that 85% see physicians
Coverage	• 95% of physicians submit claims
	• known bias, not fee for service physicians are not included
	• the estimated proportion of the target population included is approximately 95%
Data Collection	• an ongoing data collection process, updated monthly
	• approximately 18-20 million records are added per month
Time Period	• data are available for 1986-1992, with an limited retention period of seven years
Size	• 250 million records per year
Unit of Analysis	• claims, records.

Identifying Variables (approximate % of records):

- baby's surname* (100%)
- baby's first given name* (50%)
- baby's sex (100%)
- baby's year, month and day of birth (100%)
- baby's birth province or country (100%)
- mother's married name* (100%)
- mother's maiden name* (75%)
- mother's first given name* (100%)
- mother's first initial* (100%)
- mother's second given name* (50%)
- mother's second initial* (80%)
- mother's marital status (100%)
- mother's year, month and day of birth (99%)
- own place of residence, province (99%)
- own place of residence, city (99%)
- postal code (99%)
- baby's year, month and day of death, if before age 1 (95%)
- baby's place of death, province or country, if before age 1 and if baby died in Nova Scotia (95%)
- Health Insurance Number* (90%)

* for purposes of confidentiality, these variables are not contained in the data base; with appropriate permission this information is retrievable and can be linked to the data base

Access

Policy
- no established policy or procedure

Procedure
- would have to get permission of participating hospitals and the Reproductive Care Program Data Administration Committee

Type of Access
- indirect, by Reproductive Care Program only

Resources Available
- machine time and experienced personnel, no software at this time

Costs
- no policy at this time

Contact Person
- Dr. Linda Dodds, Epidemiologist (902) 420-6798

ONTARIO HEALTH SURVEY (OHS), 1990

Ontario Ministry of Health
15 Overlea Blvd., 2nd Floor, Information Resources Branch
Toronto, Ontario
M4H 1A9

General Characteristics:

Purpose

- to provide baseline statistical data on the health of the Ontario population including data for research into the social, economic, physical, behaviourial, nutritional and other factors that contribute to health

Relevant Content

- measures of the health status of the population, and risk factors for morbidity and mortality in Ontario such as: drug, tobacco and alcohol use, sexual health including the use of contraceptives and a measure of infertility, occupational exposures, physical activity, and nutrition, social, economic, demographic and geographic variables, awareness of risk behaviour, and utilization of health services

Target Population

- all residents of private dwellings in Ontario from January to November 1990, excluded persons in institutions and natives on reserves

Coverage

- possible bias is yet to be analyzed
- approximately 1000 persons aged 12 and over in each public health unit
- weighting is required to be representative
- the estimated proportion of the target population included at the province level is approximately .6%

Data Collection

- a one time cross-sectional survey, involving an interview and a self-administered questionnaire

Time Period

- data is available for 1990, with an unlimited retention period

Size

- 61,239 records in total

Unit of Analysis

- individual

Technical Characteristics

Data Storage
- in machine readable form as raw data (EBCDIC)

Previous Record Linkage
- plan to link to the Ontario Health Supplement on Mental Health

Identifying Variables (approximate % of records):

- surname (over 90%)
- first given name (over 90%)
- sex (100%)
- marital status (98%)
- year of birth (99%)
- month of birth (99%)
- day of birth (97%)
- birth province or country (99%)
- father's surname*
- father's first given name*
- father's birth province or country*
- mother's first given name*
- mother's birth province or country*
- own place of residence, province (100%)
- own place of residence, city (100%)

* these identifiers can be derived for some records from household information

Access

Policy
- established policy and procedure

Procedure
- record linkage requests to be submitted in detail, in writing, to Statistics Canada, Occupational and Environmental Health Research Section, and will be subject to Statistics Canada Data Linkage Committee, Chief Statistician, and Ministerial approval, and the upcoming Health Information Access and Privacy Act for Ontario

Type of Access
- indirect, by Statistics Canada only

Resources Available
- Statistics Canada has software (GRLS), machine time and experienced personnel

Costs
- quote prepared for each request

Contact Person
- David Bogart, Director (416) 327-7610

SASKATCHEWAN HEALTH DATA BASES

Pharmacoepidemiology Unit
Saskatchewan Laboratory and Disease Control Services Branch
3211 Albert Street
Regina, Saskatchewan
S4S 5W6

General Characteristics

Purpose

- collected for program administration and used for program management and research

Relevant Content

- demographic information, outpatient prescription drug records, hospital discharge information, physician services claims, mental health services, institutional long-term care services, home care services, vital statistics records (birth and death registrations), and some other information (e.g. some alcohol and drug abuse treatment services, information on insured dental services etc.)

Target Population

- the Saskatchewan population eligible for Saskatchewan Health benefits: 1,010,526 as of June 30 ,1991. Excludes about 6% of the population whose health care is federally funded: members of the RCMP, the Canadian Forces, and inmates of federal penitentiaries. In addition, Registered Indians are excluded from the Saskatchewan Drug Plan because their costs are paid by the federal government

Coverage

- no known bias
- the estimated proportion of the target population included is 94%

Data Collection

- an ongoing process, updated regularly

Time Period

- data is available for:
  - demographic information - 1962 to date
  - prescription drug records - 1975 to date
  - hospital discharge records - 1970 to date
  - physician services records - 1971 to date
- with an unlimited retention period

Size

- added in 1989/90 - 5.4 million prescription records
  - 223,600 hospital discharge records
  - 13.8 million physician services records

Unit of Analysis

- individual or events (services)

Technical Characteristics

Data Storage

- in machine readable form as raw data

Previous Record Linkage

- different data bases have been used individually or linked for assorted research (references available)

Identifying Variables (approximate % of records)

- surname* (100%)
- first given name* (100%)
- first initial* (100%)
- sex (100%)
- marital status* (100%)
- year, and month of birth** (100%)
- year, month and day of death (100%, where applicable)
- health services number (100%, except historical vital statistics)

* these identifiers do not reside in all databases but can be obtained through linkage with the demographic database using the health services number

** day of birth available only if vital statistics birth registration information is used

Access

Policy

- established policy and procedure

Procedure

- all requests to be submitted in detail, in writing , and subject to Saskatchewan Health approval

Type of Access

- indirect through Saskatchewan Health

Resources Available

- software (primarily COBOL and SAS), machine time and experienced personnel (data/project consultants and programmer analysts)

Costs

- a quote prepared for each request on a cost- recovery basis

Contact Person

- Dr. Linda Strand, Executive Director (306) 787-3129

APPENDIX C

EXAMPLES OF FUNCTIONAL HEALTH AND FORMAL SERVICES USE QUESTIONS

Taken from:

1. Patterns of Support: Face–to–face survey

2. The Ottawa–Carleton Seniors' Health Survey: Telephone Survey with face–to–face interviews of frail elderly

3. Services for Seniors Study: Telephone Survey with proxy interviews for frail elderly

4. St. Lawrence Neighbourhood Seniors Non Profit Project: Self–administered drop–off survey with face–to–face and telephone follow–up

5. Development of A Service Co–ordination and Tenant Support Model for Seniors: face–to–face survey

6. Ontario Health Survey: Telephone survey with mixed mode follow–up

PATTERNS OF SUPPORT

THE USE OF SUPPORT SERVICES AMONG
SENIOR CITIZEN PUBLIC HOUSING TENANTS
IN ONTARIO

by:

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Christine K. Davis

With the assistance of
Brenda J. Nussey

SOCIAL DATA RESEARCH LIMITED
Hamilton, Ontario

A Report Prepared For The
Ministry of Housing
Toronto, Ontario
September, 1986

4.0 We would like to talk with you about the services provided by organizations you may have already used and some services which might be of use to you.

(INTERVIEWER: WHILE PROCEEDING, PLEASE CHECK OFF THE SERVICES THAT THE RESPONDENT HAS ALREADY INDICATED RECEIVING IN THE QUESTIONNAIRE, MAKING REFERENCE TO THE COMMUNITY AGENCY CARD AND NOTING RELEVANT QUESTION NUMBER).

	Public Health Nurse or other nurses (e.g. V.O.N.)	Physical Therapist	Occupational Therapist
4.1 In the past year have you or any family member ever received help from: (READ TYPE OF AGENCY/SERVICE)			
Yes, as noted in previous charts (GO TO NEXT SERVICE OR 4.2)	1	1	1
Yes, noted here	2	2	2
No...Have you ever heard of (MENTION SERVICE)	3	3	3
Yes... (GO TO NEXT SERVICE OR	1	1	1
No ... Q.4.2)	2	2	2
(IF YES) What kind of help/ service was that? (SPECIFY SOURCE OF HELP AND KIND OF SERVICE: PROBE FOR ALL DETAILS: THEN ASK A - H QUESTIONS)	1. _____		
	_____		
	2. _____		
	_____		
	3. _____		
	_____		

4.1.a Who was the help/service for?

Self	1	1	1
Spouse/housemate	2	2	2
Child	3	3	3
Other (SPECIFY):	4	4	4

4.1.b Why did you get this help?

1. _____
2. _____
3. _____

4.1.c Where did you receive this help?

In Unit	1	1	1
In building/project	2	2	2
Out of building/project	3	3	3

4.1.d In the past year, how often did you receive this help/service? (CIRCLE ONE)

4 times a week or more	1	1	1
2 or 3 times a week	2	2	2
Once a week	3	3	3
1 to 3 times a month	4	4	4
Less than once a month	5	5	5

4.1.e How long would you estimate you have received or have been getting this help from _____?

(PROBE NUMBER OF DAYS, WEEKS, MONTHS AND DATES IF POSSIBLE)

	SOURCE1	SOURCE2	SOURCE3
	____	____	____

4.1.f (INTERVIEWER PROBE AND CODE IF HELP/SERVICE WAS:)

Once	1	1	1
On-going,regular	2	2	2
On-going,occassional	3	3	3
Time-limited	4	4	4

4.1.g Did you receive enough help?

Yes	1	1	1
No	2	2	2

Was it the right kind of help?

Yes	1	1	1
No	2	2	2

4.1.h How did you arrange for this service?

Yourself	1	1	1
CRW	2	2	2
Public health nurse	3	3	3
Physician	4	4	4
Community group	5	5	5
Residential council	6	6	6
Relatives	7	7	7
Other (SPECIFY) _____	8	8	8

4.1.i Without this help/service, would you have been able to get by with no difficulty, a little difficulty, a lot of difficulty, or not at all?

With no difficulty	1	1	1
A little difficulty	2	2	2
A lot of difficulty	3	3	3
Not at all	4	4	4

Now I would like to ask you a few questions about your general health and medical services you may use.

6.1 Do you have a particular family doctor whom you call when you need medical care?

1. Yes...Where do you usually see this doctor?

    1. In the doctor's office
    2. Clinic in the project
    3. Clinic outside of project
    4. In your home

2. No (IF NO) What do you do if you need medical help? (PROBE: FOR EMERGENCY, CLINICS, ETC.)

    1. Go to emergency at hospital
    2. Go to clinic
    3. Other (SPECIFY) _____

6.2 When was the last time you visited a medical doctor about your health? (PROBE FOR: EMERGENCIES, OUT PATIENT, FAMILY DOCTOR, SPECIALIST)

1. Less than one year ago
2. More than one year ago (TO GO Q. 6.5)

6.3 During the past 12 months, have you been a patient in a hospital overnight?

1. ___ Yes (Approximately how many days? ____)
2. ___ No (GO TO Q. 6.5)

6.4 How many different times have you been admitted to hospital in the last year?

____ NUMBER Why? _____

_____

_____

THE OTTAWA-CARLETON SENIORS' HEALTH SURVEY:

FINAL REPORT

Prepared by: Christine Davis
Social Data Research Limited

Prepared for: Dr. G. Dunkley
Associate Medical Officer of Health
Regional Municipality of Ottawa-Carleton

Date: April 20, 1989

Now I will ask you some questions about day-to-day activities. Please tell me about doing them by yourself.

10. Do you have any difficulty doing heavy housework or chores (like scrubbing floors, washing windows, snow shovelling, or mowing the lawn)? Would this be ...

no difficulty	1	GO TO Q11
some difficulty	2	
a lot of difficulty	3	
unable to do it	4	
not applicable/never do this	5	

(a) Do you receive any help from another person in doing heavy housework or chores?

yes	1	
no	2	GO TO Q11

(b) Who helps you?

a daughter	1
a son	2
a spouse	3
other relative	4
a neighbour or friend	5
a home support or health service agency	6
paid help	7
other (specify) _____	8

11. Do you have any difficulty getting on or off the ordinary bus (i.e., OC Transpo)? Would this be ...

no difficulty	1
some difficulty	2
a lot of difficulty	3
unable to do it	4
not applicable/never do this	5

(a) Is this the same all year round or is there a time of the year where it is more or less difficult.

same	1
more difficult in winter	2
other	3

If no difficulty at any time, Go to Q12

. Do you have a family physician?

yes 1
no 2

(a) How often have you seen other medical specialists during the last year? _____ times.

. What is your weight?

_____ pounds

. What is your height?

_____ feet _____ inches

. In the last year have you gained or lost more than 10 pounds?

yes, gained 1
yes, lost 2
no 3 GO TO Q29

(a) (IF GAINED OR LOST): How many pounds?

_____ pounds

.

. Have you been in a hospital at least overnight in the past 12 months because of illness or an accident?

yes 1
no 2 GO TO Q30

(a) (IF YES): How many different times were you in the hospital at least overnight in the past 12 months?

_____ times

. How often have you been treated at a hospital emergency department during the last year?

_____ times

15. Now, I would like to ask you about services you may have used. In the past 12 months did you:

				(IF NO): Did you know there was such a service available?		(IF YES): How did you find out about this service? (ask for selected services* only)
		Yes	No	Yes	No	
(a)	use Para Transpo?	1	2	1	2	
(b)	have meals delivered to your home by an agency or organization like Meals on Wheels?	1	2	1	2	
(c)	eat meals in a seniors' centre or in someplace with a special meal program for the elderly?	1	2	1	2	
* (d)	use a homemaker service for the elderly that provides services like cleaning and cooking in the home?	1	2	1	2	
(e)	use a service which makes routine telephone calls to check on the health of elderly people?	1	2	1	2	
* (f)	have a nurse visit you?	1	2	1	2	
(g)	use a foot care clinic?	1	2	1	2	
(h)	use a Community Information service to find out about other services?	1	2	1	2	
(i)	have a volunteer visit you regularly?	1	2	1	2	
(j)	go to a day hospital or day centre program for seniors	1	2	1	2	
(k)	see a family physician?	1	2	1	2	
(l)	use a dental clinic or see a dentist?	1	2	1	2	

				(IF NO): Did you know there was such a service available?		(IF YES): How did you find out about this service? (ask for selected services* only)
			Yes	No	Yes	No	
*	(m)	have help from a physiotherapist	1	2	1	2	
*	(n)	have help from an occupational therapist	1	2	1	2	
*	(o)	have help from a nutritionist?	1	2	1	2	
	(p)	visit a social worker?	1	2	1	2	
	(q)	use the regular public bus (OC Transpo)?	1	2	1	2	

46. Are you currently receiving Home Care? Yes 1 No 2

Finally, we have a few questions about your background

47. INTERVIEWER NOTE SEX

male 1
female 2

48. In what year were you born? ____ ____ ____ ____

49. Were you born in Canada?

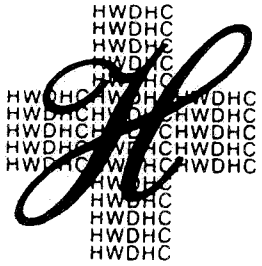
yes 1 GO TO Q50
no 2

(a) (IF NO): Where were you born?

_____

(b) What year did you first come to Canada?

____ ____



SERVICES FOR SENIORS STUDY

MAPPING THE WAY TO THE FUTURE FOR THE ELDERLY:

REPORT OF FINDINGS AND RECOMMENDATIONS

PREPARED BY:

THE REGIONAL MUNICIPALITY OF HAMILTON-WENTWORTH

AND

THE HAMILTON-WENTWORTH DISTRICT HEALTH COUNCIL

OCTOBER, 1988

Col. 61 - 65

14. Because of any health or physical problem, do you have any difficulty shopping for groceries? Would this be ...

no difficulty	1	GO TO Q15
some difficulty	2	------
a lot of difficulty	3	| ASK a
unable to do it	4	------
not applicable/never do this	5	

(a) Do you receive any help from another person in shopping for groceries?

yes	1	ASK (b)
no	2	ASK (c & d)

(b) Who helps you?

a daughter	1
a son	2
a spouse	3
other relative	4
a neighbour or friend	5
a social service agency	6
paid help	7
other (specify)	8

_____

GO TO Q15

(c) How are you dealing with your difficulty?

on my own	1
not dealing with it	2
other (specify)	3

_____

_____

(d) Why are you not getting help?

I don't know where to get help from	1
no help available	2
I can't afford the help	3
other (specify)	4

_____

Col. 35 - 45

23. (a) Compared to other people your own age, how would you rate your overall health at the present time? Would this be ...

excellent	1
good	2
fair	3
poor	4

(b) (IF SPOUSE/PARTNER ASK):
Compared to other people his/her own age, how would you rate your spouse/partner's overall health at the present time? Would this be ...

excellent	1
good	2
fair	3
poor	4

(c) Do you have a family physician?

yes	1
no	2

(d) Do you have any difficulty with ...

	yes	no
reading ordinary newsprint.....	1	2
seeing clearly the face of someone from 4 metres (e.g., across the room) (with glasses if normally worn).....	1	2
hearing what is said in a normal conversation with one other person....	1	2
hearing what is said in a normal conversation with at least two other persons.....	1	2
cutting your own toe nails.....	1	2
with dental care.....	1	2
having your eyeglasses repaired when necessary (for those who wear glasses)	1	2
any other health related difficulties we haven't discussed that interfere with your day-to-day life..... (specify)	1	2

_____

_____

Col. 46 - 58

24. If at a future point in your life you find it extremely difficult to take care of your own needs, please tell me if you would or would not be interested in the following housing arrangements ...

		yes	no
(a)	moving in with members of the family	1	2
(b)	moving in with friends and sharing the costs	1	2
(c)	moving into a home for elderly persons	1	2
(d)	staying home with family to assist	1	2
(e)	staying home with friends to assist	1	2
(f)	staying home with community services to assist	1	2
(g)	moving into a housing project where some services are available	1	2

25. In the past 12 months did you:

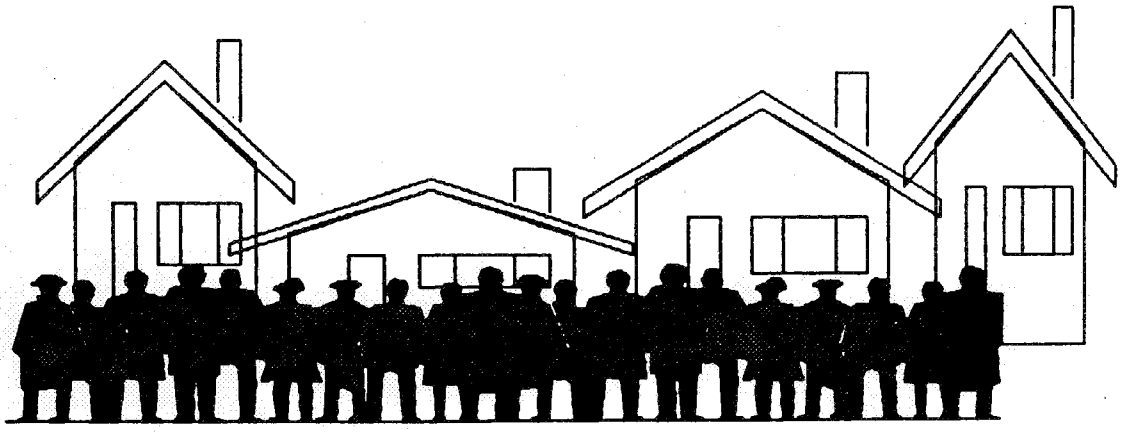
	Yes	No	(IF NO) Do you know about this service? Yes	No
Use a seniors' centre	1	2	1	2
Use special transportation for the elderly	1	2	1	2
Have meals delivered to your home by an agency or organization like Meals on Wheels	1	2	1	2
Eat meals in a senior centre or in someplace with a special meal program for the elderly	1	2	1	2
Use a homemaker service for the elderly that provides services like cleaning and cooking in the home	1	2	1	2
Use a service which makes routine telephone calls to check on the health of elderly people	1	2	1	2

Col. 59 - 77

	Yes	No	(IF NO) Do you know about this service? Yes	No
Use a visiting nurse service	1	2	1	2
Use a foot care clinic	1	2	1	2
Use a Community Information Service to find out about other services	1	2	1	2
Use a friendly visiting service	1	2	1	2
Use Seniors' Counselling Service	1	2	1	2
Use a health aide who comes into the home	1	2	1	2
Use adult day care or day care for the elderly	1	2	1	2
Use a grocery shopping service	1	2	1	2
See a family physician	1	2	1	2
Use a dental clinic or see a dentist	1	2	1	2
Use a physiotherapy service	1	2	1	2
Use an occupational therapy service	1	2	1	2
Use the services of a nutritionist	1	2	1	2
See a medical specialist	1	2	1	2
See a social worker	1	2	1	2
Use a hearing clinic	1	2	1	2
Use a vision clinic	1	2	1	2
Inquired about subsidized housing	1	2	1	2
Use the ordinary bus (HSR)	1	2	1	2

ST. LAWRENCE NEIGHBOURHOOD SENIORS NON PROFIT PROJECT:

A STUDY TO ASSESS SUPPORT SERVICE NEEDS



Prepared by:

Christine Davis
Sylvia Goldblatt
Social Data Research Ltd.

5. **Please tell us if you are receiving help with any of these activities, and if so, who helps you.**

Receiving help from:	no one	family/friends	a health agency (nursing service)	other agency (Home support)	other
heavy housework (i.e..... scrubbing floors, washing windows, mowing lawns, snow shovelling)	☐	☐	☐	☐	☐
light housework (i.e..... vacuuming, doing dishes etc.)	☐	☐	☐	☐	☐
shopping for groceries.....	☐	☐	☐	☐	☐
going up and down stairs.....	☐	☐	☐	☐	☐
making your main meal.....	☐	☐	☐	☐	☐
bathing or showering.....	☐	☐	☐	☐	☐
cutting your toenails.....	☐	☐	☐	☐	☐
dressing or undressing ..... (putting on a shirt, doing up or undoing buttons)	☐	☐	☐	☐	☐
personal grooming (i.e..... combing your hair,brushing your teeth, washing your face)	☐	☐	☐	☐	☐
walking around the ..... block for small errands	☐	☐	☐	☐	☐
walking across a room.....	☐	☐	☐	☐	☐
getting up from a chair.....	☐	☐	☐	☐	☐
eating (holding a spoon).....	☐	☐	☐	☐	☐
toiletting.....	☐	☐	☐	☐	☐
taking part in social or ..... recreational activities	☐	☐	☐	☐	☐
getting around the ..... city, shopping etc.	☐	☐	☐	☐	☐
other difficulties?.....	☐	☐	☐	☐	☐

6. In the past 6 months, did you...

	Yes	No
see your family doctor	☐	☐
see a specialist	☐	☐
stay in a hospital over night	☐	☐
use special transportation	☐	☐
use "meals on wheels"	☐	☐
use a home maker service for cooking or cleaning	☐	☐
use a visiting nurse service	☐	☐
use a dental clinic or service	☐	☐
use a foot care service	☐	☐
use a hearing clinic	☐	☐

7. Compared to other people of your own age, how would you describe your own health? Would you say...

☐ ..... excellent
☐ ..... very good
☐ ..... good
☐ ..... fair
☐ ..... poor

8. What language do you speak most often in your home?

☐ ..... English
☐ ..... French
☐ ..... other (please describe) _____

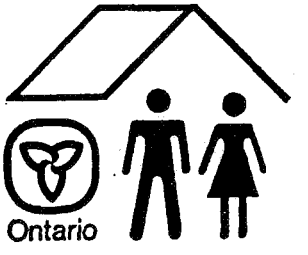
DEVELOPMENT
of a
SERVICE CO-ORDINATION
and
TENANT SUPPORT MODEL
for
SENIORS

The Council on Aging
Le Conseil sur le vieillissement

Ottawa-Carleton

Ottawa-Carleton Regional
Housing Authority

Commission régionale de
logement Ottawa-Carelton



7. I would now like to talk about how things are going for you right now. Lets take this past week. During this past week - that is lets say from Monday January 20th to this weekend - did you (or your spouse) receive help at home with anything at all? This could include things like doing housework, meals, taking a bath or shower, help with medications or some other daily activity like help with transportation to go for an appointment, filling out forms or banking - really anything at all that was a help to you. (INTERVIEWER USE LOTS OF EXAMPLES FROM LIST TO JOG RESPONDENT'S MEMORY)

1. . . yes
2. . . no....**(probe) nothing at all that comes to your mind?**
    1. . . yes
    2. . . no

IF RESPONDENT (AND SPOUSE) RECEIVED NO HELP AT ALL DURING THE LAST WEEK GO TO QUESTION 10 ON PAGE 6

FOR THOSE RESPONDENTS WHO RECEIVED HELP DURING THE LAST WEEK, ASK QUESTIONS 8 and 9

8. I'd like to ask you who provided the help that you received this last week? This could include your spouse/partner, a son or daughter or it could be an outside agency like homecare or meals on wheels. (Interviewer, circle all sources given from list below - probe from list. If respondent doesn't know name of agency ask if they have the person's card, or record name of person)

A. spouse/partner
B. daughter/son/other relative
C. neighbour/friend
D. community relations worker
E. chaplain/pastor/minister etc.
F. visiting physician
G. social worker/counsellor_____
H. Other individual sources of help

_____

_____

CONTINUE TO NEXT PAGE

I. AGENCY PERSONNEL
(please ask which one(s))

1. Home maker/helper/support worker - name of agency(ies) if known
   _____
2. Nurse (Please probe organization if known and circle)
   a. Public health nurse
   b. Home care nurse - name of organization if known
      _____
   c. Other_____
3. Friendly visitor_____
4. Meals program_____
5. Para transpo
6. Other transportation service_____
7. Telephone Assurance Program
8. Lifeline or other equivalent_____
9. Other_____
   _____
   _____

FOR EACH SOURCE OF HELP LISTED IN QUESTION 8 ASK QUESTION 9-1 TO 9-6 AND RECORD RESPONSES ON FORM A-1, A-2 AND FORM B.

9. I would now like to talk a little more about the help you have received in your home during this past week

First of all, you say you received help from_____(name/type of agency/ies, individual source)

9-1 What type of help was this? (check type of help by source on Form A-1 for individual help and Form A-2 for agency help)

9-2 Did anyone help you arrange for this help? (record # of who helped by source on Form B)

9-3 Did you yourself have to pay anything for this help? (Record 1=yes, 2=no for each source on Form B)

9-4 How often during the last week did you receive this help? Can you recall which days? (Record number of days and days of the week for each source on Form B)

9-5 (IF AGENCY) Approximately how long did the person stay each time? (Record hours/minutes for each agency source on Form B)

9-6 Did you receive this help during the day time only, evening only or both? (Record time of day by source on Form B)

END OF QUESTIONS TO BE RECORDED ON FORMS

9-7 Were you happy with the help you received last week? Would you say you were happy ...

1. . . most or of the time
2. . . sometimes
3. . . very little or none of the time

(If not happy, probe for source(s) of help that respondent was dissatisfied with)

_____

Why were you not happy sometimes? Would it be for any of the following reasons...? (Please circle all that is mentioned and record source if possible beside reason)

01. . . it wasn't enough help for your needs– not there long enough
02. . . too much changeover in helpers/staff
03. . . it was too much – more than you needed
04. . . needed help on weekend and it wasn't available
05. . . needed help at night time and it wasn't available
06. . . couldn't get along with person(s) who provided help
07. . . too expensive
08. . . language problem/didn't speak same language as helper
09. . . had trouble arranging the help (i.e. long waiting list, couldn't get through to right person etc.
10 . . other (please list)_____

_____

Have I missed anything that you (or your spouse) received help with in your home this past week?

_____

_____

ASK EVERYONE

10. During the last month or so, did you (or your spouse) do any of the following? Did you...

01. . . visit a senior centre in the community for recreation purposes like bingo, cards
02. . . use the recreation lounge/room in your building for recreation/visiting
03. . . go to a clinic or senior centre for footcare, dental or eye check ups
04. . . go to the doctor or specialist
05. . . go to emergency
06. . . stay in the hospital over night
07. . . use a meal service out in the community (like the lunch bunch or wheels to meals)
08. . . go to a support group like a widowhood support group or other group
09. . . go to a seniors' day program such as the one at St. Patricks or St. Vincents
10. . . go to a workshop or use a service for particular health conditions such as alzheimer's, arthritis, osteoporosis etc.
11. . . go to religious services
12. . . go to Chez Nous restaurant (for Gladstone only)
13. . . use some other service for a health or social purpose?

_____

_____

11. Was there actually an occasion in the last month or so where you needed help but didn't get any?

1. . .yes....**What did you need help with?**_____

_____

Did you try to get help?

1. . . yes....**What happened?**
    1. . . couldn't get through to right agency/didn't know where to go
    2. . . long waiting list
    3. . . too expensive
    4. . . didn't qualify
    5. . . language barrier
    6. . . other_____

2. . . no.....**Why not?**
    1. . . didn't know where to turn
    2. . . language difficulty
    3. . . physical or mental disability
    4. . . other?_____

2. . .no

12. If, down the road, you (or your spouse) needed help with anything that you are now not having any difficulty with, where would you <u>first</u> turn for help?

1. . . family
2. . . community relations worker
3. . . nurse in building
4. . . doctor
5. . . neighbour/friend
6. . . agency, please specify_____
7. . . other_____

8. . . don't know what I would do

April 3

1 PHU – Docket

2 Survey Date

3 PHU – Str – ED – EA – Bklet – List No.

Interviewer No.

Start Time

Finish Time

Questionnaire

of

04

CONFIDENTIAL
WHEN COMPLETED

Interviewer
Questionnaire

Ontario Health Survey

Ministry of Health
Ontario

Section C

Contacts With Health Professionals

The next questions ask about contacts with health professionals during those same 2 weeks.

11 (a) **Did.....talk to a medical doctor, such as a family doctor or psychiatrist?**

- 3 ○ Yes
- 4 ○ No → go to 12

(b) **How many times?**

☐☐ times

(c) **Was it a general practitioner or a medical specialist?**

- 5 ○ General Practitioner
- 6 ○ Specialist
- 7 ○ Both

(d) **Where did the consultation(s) take place?** (Mark all that apply.)

- 01 ○ Health professional's office or clinic
- 02 ○ Community clinic
- 03 ○ Hospital →emergency room
- 04 ○ Hospital clinic
- 05 ○ Overnight hospital patient
- 06 ○ At work
- 07 ○ At school
- 08 ○ At home
- 09 ○ Telephone only
- 10 ○ Other (specify)

_____

_____

(e) **What was the main health problem for the consultation(s)?** (specify problem and question number above)

- 1 ○ None
- 2 ○ entered above (problem, 11)

12 (a) **Did.....talk to a nurse about his/her health during those 14 days?**

- 4 ○ Yes
- 5 ○ No → go to 13

(b) **How many times?**

☐☐ times

(c) **Where did the consultation take place?** (Mark all that apply.)

- 01 ○ Health professional's office or clinic
- 02 ○ Community clinic
- 03 ○ Hospital emergency room
- 04 ○ Hospital clinic
- 05 ○ Overnight hospital patient
- 06 ○ At work
- 07 ○ At school
- 08 ○ At home
- 09 ○ Telephone only
- 10 ○ Other (specify)

_____

_____

(d) **What was the main health problem for the consultation(s)?** (specify problem and question number above)

- 1 ○ None
- 2 ○ entered above (problem, 12)

13 (a) **Did.....consult a dentist, denturist or other dental care provider?**

4 ○ Yes

5 ○ No → go to 14

(b) **How many times?**

☐☐ times

(c) **Where did the consultation take place?** (Mark all that apply.)

1 ○ Health professional's office or clinic

2 ○ Community clinic

3 ○ At school

4 ○ At home

5 ○ Telephone only

6 ○ Other (specify)

_____

_____

(d) **What was the main health problem for the consultation(s)?** (specify problem and question number above)

1 ○ None

2 ○ entered above (problem, 13)

14 (a) **Did.....talk to a pharmacist or druggist about his/her health during those 14 days?**

1 ○ Yes

2 ○ No → go to 15

(b) **What was the main health problem for the consultation?** (specify problem and question number above)

3 ○ None

4 ○ entered above (problem, 14)

15 (a) **Did.....talk to an optometrist or optician during those 14 days?**

5 ○ Yes

6 ○ No → go to 16

(b) **What was the main health problem for the consultation?** (specify problem and question number above)

7 ○ None

8 ○ entered above (problem, 15)

16 (a) **Did.....talk to a physiotherapist or occupational therapist in the last 14 days?**

5 ○ Yes

6 ○ No → go to 17

(b) **How many times?**

☐☐ times

(c) **Where did the consultation take place?** (Mark all that apply.)

01 ○ Health professional's office or clinic

02 ○ Community clinic

03 ○ Hospital emergency room

04 ○ Hospital clinic

05 ○ Overnight hospital patient

06 ○ At work

07 ○ At school

08 ○ At home

09 ○ Telephone only

10 ○ Other (specify)

_____

_____

(d) **What was the main health problem for the consultation(s)?** (specify problem and question number above)

3 ○ None

4 ○ entered above (problem, 16)

17 (a) **Did.....talk to a social worker or other counsellor about his/her health?**

- 5 ○ Yes
- 6 ○ No → go to 18

(b) **Where did the consultation take place?** (Mark all that apply.)

- 1 ○ Health professional's office or clinic
- 2 ○ Community clinic
- 3 ○ At work
- 4 ○ At school
- 5 ○ At home
- 6 ○ Telephone only
- 7 ○ Other (specify)

_____

_____

(c) **What was the main health problem for the consultation?** (specify problem and question number above)

- 8 ○ None
- 9 ○ entered above (problem, 17)

18 (a) **Did.....talk to any other health professional during those 14 days?**

- 1 ○ Yes (specify)

_____

- 2 ○ No → go to Section D

(b) **How many times?**

☐☐ times

(c) **What was the main health problem for the consultation(s)?** (specify problem and question number above)

- 3 ○ None
- 4 ○ entered above (problem, 18)

Section E

Restriction Of Activities

The following questions deal with the limitations on the normal activities of daily life.

26 (a) Compared to other people of the same age in good health, is..... limited in the kind or amount of activity he/she can do because of a long-term physical or mental condition or a health problem?	1 ○ Yes 2 ○ No → go to 32	
(b) From what age has.....been limited in his/her activities?	00 .8 ○ Since birth ☐☐ age	
27 (a) Does.....health limit his/her activities at home?	4 ○ Yes 5 ○ No → go to 28	
(b) Does.....health make him/her unable to do most every day household activities?	6 ○ Yes 7 ○ No	
28 (a) Is.....limited in the kind or amount of his/her work or school because of his/her health?	1 ○ Yes 2 ○ No → go to 29	
(b) Is.....unable to work or go to school because of his/her health?	3 ○ Yes 4 ○ No	
29 Is.....limited in other activities such as leisure time pursuits or transportation to and from work or school?	5 ○ Yes 6 ○ No	
30 What is the main health problem causing.....to be limited in his/her activities? (specify problem and question number above)	7 ○ entered above (problem, 30)	
31 Are there any other health problems which limit..... activities?	1 ○ Yes→enter above (problem, 31) 2 ○ No	
32 Because of an impairment or health problem does.....need any help from another person with personal care such as eating, bathing, dressing or getting around the house?	3 ○ Yes 4 ○ No	

33 Because of an impairment or health problem does.....need any help from another person in looking after personal affairs, doing everyday household chores, going shopping or getting around outside the house?	5 ○ Yes 6 ○ No	
34 Is.....usually able to go outside in good weather?	1 ○ Yes 2 ○ No	
35 Is.....usually confined to a bed or to a chair for most of the day because of his/her health?	3 ○ Yes 4 ○ No	
The next questions concern your usual ability in certain specific areas, such as vision, hearing and mobility. **Interviewer:** Do not ask questions 36 – 72 for children less than 6 years of age. **VISION**	Child less than 6 → Other person ↓	
36 Is.....able to see well enough to read ordinary newsprint, with glasses if normally worn?	1 ○ Yes 2 ○ No → go to 39	
37 Does.....require glasses or contact lenses to read ordinary newsprint?	3 ○ Yes 4 ○ No → go to 40	
38 How long has.....sight been like this?	5 ○ Since birth 1 __ weeks 2 __ months 3 __ years } go to 40	
39 Is.....able to see at all?	6 ○ Yes 7 ○ No → go to 42	
40 Is.....able to see well enough to recognize a friend on the other side of the street, with glasses if normally worn?	1 ○ Yes 2 ○ No → go to 42	
41 Does.....require glasses or contact lenses to recognize a friend on the other side of the street?	3 ○ Yes 4 ○ No → go to 43	

42 How long has.....sight been like this?	5 ○ Since birth 1 ||| weeks 2 ||| months 3 ||| years	
HEARING **43** Is.....able to hear what is said in a group conversation with at least three other persons with a hearing aid if normally worn?	1 ○ Yes 2 ○ No → go to 45	
44 Does.....require a hearing aid to hear what is said in a group conversation with at least three other people?	3 ○ Yes → go to 46 4 ○ No → go to 49	
45 Can.....hear at all?	5 ○ Yes 6 ○ No → go to 48	
46 Is.....able to hear what is said in a normal conversation with one other person, with a hearing aid if normally worn?	7 ○ Yes 8 ○ No → go to 48	
47 Does.....require a hearing aid to hear what is said in a normal conversation with one other person?	1 ○ Yes 2 ○ No	
48 How long has.....hearing been like this?	5 ○ Since birth 1 ||| weeks 2 ||| months 3 ||| years	
SPEECH **49** Is.....able to be understood completely when speaking with strangers?	4 ○ Yes → go to 54 5 ○ No	
50 Is.....able to be understood completely, when speaking with those who know.....well?	6 ○ Yes → go to 53 7 ○ No	

51 Is.....able to be understood partially when speaking with those who know.....well?	1 ○ Yes → go to 53 2 ○ No	
52 Can.....speak at all?	3 ○ Yes 4 ○ No	
53 How long has.....ability to be understood been like this?	5 ○ Since birth |1| | | weeks |2| | months |3| | years	
MOBILITY **54** Is.....able to walk without difficulty?	1 ○ Yes 2 ○ No → go to 56	
55 Is.....able to run, jump and do vigorous physical activities?	3 ○ Yes → go to 62 4 ○ No → go to 61	
56 Is.....able to walk at all?	5 ○ Yes 6 ○ No → go to 59	
57 Does.....require the help of another person to be able to walk?	7 ○ Yes 8 ○ No	
58 Does.....require special aids such as walkers or braces to be able to walk?	1 ○ Yes 2 ○ No } go to 61	
59 Does.....use a wheelchair?	3 ○ Yes 4 ○ No → go to 61	
60 Does.....need the help of another person to be able to get around in the wheelchair?	5 ○ Yes 6 ○ No	
61 How long has.....ability to get around been like this?	5 ○ Since birth |1|1| weeks |2|1| months |3|1| years	

COGNITIVE

62 Is.....able to remember most things, such as the name of a familiar person?

1 ○ Yes → go to 65

2 ○ No

63 Would you describe.....as:

Mark one only

a) having difficulty remembering little things — a) 3 ○

b) being very forgetful — b) 4 ○

c) being unable to remember anything at all — c) 5 ○

64 How long has.....ability to remember been like this?

6 ○ Since birth

1 | | | weeks

2 | | | months

3 | | | years

65 Is.....able to think clearly and solve problems?

7 ○ Yes → go to 68

8 ○ No

66 Would you describe .....as:

Mark one only

a) easily distracted when trying to think — a) 1 ○

b) confused about where he/she is or what time or day — b) 2 ○

c) unable to think or solve problems — c) 3 ○

67 How long has.....ability to think been like this?

4 ○ Since birth

1 | | | weeks

2 | | | months

3 | | | years

DEXTERITY

68 Does.....have the full use of your/his/her hands and fingers?	5 ○ Yes → go to 73 6 ○ No	
69 Does.....require the help of another person because of limitations in the use of hands or fingers?	7 ○ Yes 8 ○ No → go to 71	
70 Does.....require the help of another person because of limitation in the use of hands or fingers to help with some tasks, most tasks, almost all tasks or all tasks?	1 ○ some tasks 2 ○ most tasks 3 ○ almost all tasks 4 ○ all tasks	
71 Does.....require special equipment, for example devices to assist in dressing, because of limitations in the use of hands and fingers?	5 ○ Yes 6 ○ No	
72 How long has.....ability to use your/his/her hands and fingers been like this?	7 ○ Since birth 1 ☐☐ weeks 2 ☐☐ months 3 ☐☐ years	

APPENDIX D

Health Indicators Database
Canadian Centre for Health Information
Statistics Canada
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HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

The hardcopy tables and graphs in this publication illustrate only a fraction of the data that are available in the database. The diskettes that accompany this document contain all the disaggregations and categories of the multidimensional indicators which allow analysts to customize data retrieval.

The following table provides a quick reference guide to the structure and components of the entire health indicators database and is meant to be a guide to be used in conjuction with the data retrieval software. The order of presentation is the same as the hardcopy indicators.

TABLE NUMBER

The eight-digit table number is the number that identifies the table on the database. The last three digits correspond to the table and graph numbers on the hardcopy version.

TYPE OF INDICATOR

The type of indicator describes the general title of the indicator.

PERIOD

The period is the years that are covered by the indicator.

SPECIFIC DATA SERIES (Quantifiers)

This column lists the individual data series that are available for the type of indicator and often represent different ways of quantifying the data.

DISAGGREGATIONS FOR EACH DATA SERIES

The disaggregations listed in this column are available for each of the specific data series and are in addition to the PERIOD disaggregation. Therefore, each of the data series can be broken down by period and the disaggregations in this column. The numbers in brackets that follow each of the disaggregations represent the number of categories in the disaggregation. Refer to the data dictionary for a definition of the specific categories.

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Determinants

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060105	Population distribution	1961-1989	1. Population 2. Percentage distribution	1. Canada, provinces and territories (13) 2. Age groups (21) 3. Sex (3)
00060106	Population aged 60 and over	1961-1989	1. Population aged 60 and over 2. Percentage of total population	1. Canada, provinces and territories (13) 2. Age groups (6) 3. Sex (3)
00060104	Total fertility rate	1961-1987	1. Total fertility rate	1. Canada, provinces and territories (13)
00060107	Age-specific fertility rate	1961-1987	1. Number of livebirths 2. Age-specific fertility rate	1. Canada, provinces and territories (13) 2. Age group of mother (9) 3. Order of birth (7)
00060109	Livebirths	1961-1987	1. Number of livebirths	1. Canada, provinces and territories (13) 2. Age group of mother (10) 3. Weight of child (4) 4. Period of gestation (11)
00060108	Teenage abortions and births	1974-1987	1. Therapeutic abortions 2. Number of births	1. Canada, provinces and territories (13) 2. Ages 13 through 19 (7)
00060118	Number of smokers	1985 & 1989	1. Number of smokers	1. Canada and the provinces (11) 2. Age groups (5) 3. Level of education (4) 4. Sex (3)
00060119	Consumption of cigarettes	1985 & 1989	1. Number of smokers	1. Canada and the provinces (11) 2. Age groups (5) 3. Average number of cigarettes per day (5) 4. Sex (3)
00060120	Number of drinkers	1985 & 1989	1. Number of drinkers	1. Canada and the provinces (11) 2. Age groups (5) 3. Level of education (4) 4. Sex (3)

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Determinants

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060124	Consumption of alcohol	1985 & 1989	1. Number of drinkers	1. Canada and the provinces (11) 2. Age groups (5) 3. Number of drinks per week (5) 4. Sex (3)
00060121	Population with high blood pressure	1985	1. Number of people with high blood pressure 2. Population aged 15 and over 3. Percent of population with high blood pressure	1. Canada and the provinces (11) 2. Age groups (5) 3. Sex (3)
00060133	Elderly population by income group	1973-1989 (biennial)	1. Number of unattached elderly individuals	1. Canada and the provinces (11) 2. Age groups (4) 3. Income group (8) 4. Sex (3)
00060135	Elderly population below income cutoffs	1973-1989 (biennial)	1. Estimated number of elderly individuals 2. Percent distribution of elderly	1. Canada and the provinces (11) 2. Age groups (4) 3. Low income cutoffs (5) 4. Sex (3)
00060134	Time-loss work injuries	1982-1988	1. Number of time-loss work injuries	1. Canada, provinces and NWT (12) 2. Age groups (5) 3. Industry (13) 4. Sex (5)
00060207	Exercise frequency	1985	1. Number of persons who exercise regularly	1. Canada, provinces and territories (13) 2. Age groups (8) 3. Exercise frequency (5) 4. Sex (3)
00060208	Pap smear	1985	1. Number of women who had a pap smear	1. Canada, provinces and territories (13) 2. Age groups (8)
00060209	Seatbelt users	1985	1. Number of people who always wear seatbelts	1. Canada, provinces and territories (13) 2. Age groups (8) 3. Sex (3)

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Determinants

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060210	Measures taken to improve health	1985	1. Measures	1. Canada, provinces and territories (13) 2. Measures (15) 3. Age groups (5) 4. Sex (3)
00060211	Body mass index	1985	1. Body mass index groupings	1. Canada, provinces and territories (13) 2. Body mass index (5) 3. Age groups (8) 4. Sex (3)
00060212	Weight change	1985	1. Number of persons desiring a weight change	1. Canada, provinces and territories (13) 2. Age groups (8) 3. Sex (3)
00060213	Regular breast examination	1985	1. Annual professional examination 2. Monthly self examination	1. Canada, provinces and territories (13) 2. Age groups (8)
00060214	Food consumption at breakfast	1985	1. Number of persons consuming selected breakfast foods	1. Canada, provinces and territories (13) 2. Selected foods (5) 3. Consumption (3) 4. Age groups (8) 5. Sex (3)

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Status

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060115	Life expectancy	1920-1922 to 1985-1987	1. Life expectancy	1. Canada and the provinces (11) 2. Age groups (20) 3. Sex (3)
00060113	Potential years of life lost	1961-1987	1. Potential years of life lost	1. Canada, provinces and territories (13) 2. Cause of death (10) 3. Age groups (15) 4. Sex (3)
00060114	Age-standardized mortality rate	1950-1988	1. Age-standardized mortality rate	1. Canada, provinces and territories (13) 2. Cause of death (25) 3. Sex (3)
00060110	Infant mortality rate	1981-1987	1. Number of infant deaths under 1 year 2. Number of livebirths 3. Infant mortality rate	1. Canada, provinces and territories (13) 2. Cause of death (11) 3. Sex (3)
00060112	Perinatal mortality rate	1974-1987	1. Stillbirths of 28+ weeks gestation 2. Deaths under one week 3. Total livebirths 4. Stillbirths of 28+ weeks gestation summed over cause 5. Perinatal mortality rate	1. Canada, provinces and territories (13) 2. Cause of death (11) 3. Sex (4)
00060111	Suicides	1961-1987	1. Number of suicides 2. Suicides per 100,000 population	1. Canada, provinces and territories (13) 2. Age groups (8) 3. Sex (3)
00060128	Hospital separations by diagnostic group	1979-1980 to 1986-1987	1. Number of hospital separations 2. Separations per 100,000 population	1. Canada and the provinces (11) 2. Age groups (6) 3. ICD chapter (19) 4. Sex (3)
00060103	Ambulatory care and surgical day care visits	1976 to 1986-1987	1. Ambulatory and surgical day care visits 2. Visits per 1,000 population	1. Canada, provinces and territories (13) 2. Type of visit (4)

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Status

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060122	Disability	1986-1987	1. Number of people with a disability 2. Percentage of the population with a disability	1. Canada, provinces and territories (13) 2. Age groups (6) 3. Nature of the disability (8) 4. Sex (3)
00060123	Disability due to motor vehicle accidents	1986	1. Number of persons with a disability due to a motor vehicle accident	1. Canada, provinces and territories (13) 2. Age groups (4) 3. Nature of the disability (4) 4. Sex (3)
00060127	Motor vehicle accident morbidity	1979-1980 to 1986-1987	1. Separations due to motor vehicle accidents 2. Separations per 1,000 population 3. Days' stay in hospital 4. Days' stay per 1,000 population	1. Canada and the provinces (11) 2. Age groups (6) 3. Sex (3)
00060132	Sexually transmitted disease	1979 to 1988	1. Number of reported cases	1. Canada, provinces and territories (13)

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Resources

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060201	Health expenditures per capita by sector	1975-1987	1. Health expenditures per capita	1. Canada, provinces and territories (12) 2. Sector (8)
00060202	Health expenditures per capita by category of service	1975-1987	1. Health expenditures per capita	1. Canada, provinces and territories (12) 2. Category of service (23)
00060203	Health expenditures as a percentage of Gross Domestic Product by sector	1975-1987	1. Health expenditures as a percentage of GDP	1. Canada, provinces and territories (12) 2. Sector (8)
00060204	Health expenditures as a percentage of Gross Domestic Product by category of service	1975-1987	1. Health expenditures as a percentage of GDP	1. Canada, provinces and territories (12) 2. Category of service (23)
00060205	Population per health professional	1977-1988	1. Number of health professionals 2. Population per health professional	1. Canada, provinces and territories (14) 2. Type of health professionals (48)

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Resources

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060131	University students in health care disciplines	1972-1973 to 1988-1989	1. University students in health care disciplines	1. Canada and the provinces (11) 2. Type of health discipline (15) 3. Level of program (4) 4. Status of student (3) 5. Sex (3)
00060129	University graduates in health care disciplines	1972-1973 to 1988-1989	1. Number of university health graduates	1. Canada and the provinces (11) 2. Type of health discipline (15) 3. Level of program (3) 4. Sex (3)
00060126	College graduates and students in health care disciplines	1975-1976 to 1988-1989	1. Number of students 2. Number of graduates	1. Canada, provinces and territories (13) 2. Type of health discipline (9) 3. Sex (3)
00060101	Approved beds in institutions	1979-1980 to 1986-1987	1. Number of approved beds 2. Approved beds per 1,000 population	1. Canada, provinces and territories (13) 2. Type of institution (3) 3. Type of care (7)

HEALTH INDICATORS PROGRAM – OUTLINE OF DATABASE

Health Resources Utilization

Table Number	Type of Indicator	Period	Specific Data Series (Quantifiers)	Disaggregations for Each Data Series (Dimensions)
00060116	Institutional bed occupancy rate	1979-1980 to 1986-1987	1. Percentage occupancy rate	1. Canada, provinces and territories (13) 2. Type of institution (2) 3. Type of care (7)
00060117	Institutional patient-days	1979-1980 to 1986-1987	1. Number of patient-days 2. Patient-days per 1,000 population	1. Canada, provinces and territories (13) 2. Type of institution (3) 3. Type of care (7)
00060102	Institutional separations	1979-1980 to 1987-1988	1. Number of institutional separations 2. Separations per 1,000 population	1. Canada, provinces and territories (13) 2. Type of institution (3) 3. Separations(3)
00060125	Hospital patient-days	1979-1980 to 1986-1987	1. Number of patient-days	1. Canada and the provinces (11) 2. Age groups (6) 3. Sex (3)
00060130	Average length of stay in hospitals	1969-1970 to 1986-1987	1. Days' stay in hospital 2. Number of hospital separations 3. Average length of stay in hospital	1. Canada and the provinces (11) 2. Age groups (6) 3. Diagnostic group (19) 4. Sex (3)
00060208	Physician services	1982-1983 to 1988-1989	1. Dollar amount of services 2. Number of services 3. Average payment per service	1. Canada, provinces and territories (13) 2. Category of service (18) 3. Category of physician specialty (21)