Sample Design of the National Population Health Survey

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Abstract

In 1994, Statistics Canada began data collection for the National Population Health Survey (NPHS), a household survey designed to measure the health status of Canadians and to expand knowledge of health determinants. The survey is longitudinal, with data being collected on selected panel members every second year. This article focuses on the NPHS sample design and its rationale. Topics include sample allocation, representativeness, and selection; modifications in Quebec and the territories; and integration of the NPHS with the National Longitudinal Survey of Children. The final section considers some methodological issues to be addressed in future waves of the survey.

Keywords: *data collection, health surveys, sample size*

Introduction

The National Population Health Survey (NPHS) is designed to collect information related to the health of the Canadian population.[1] The first 12-month cycle of data collection began in 1994, and will continue every second year thereafter. As well as cross-sectional information, the survey will collect longitudinal data from a panel of individuals at two-year intervals. Reports based on the first wave of data collection are expected to be released later this year. This paper describes the sample design and provides basic background information related to the NPHS.

Objectives and contents

The broad objectives of the NPHS are to:

C aid in the development of public policy by providing measures of the health status of the population;
C provide data that will assist in understanding the determinants of health;

C collect data on the economic, social, demographic, occupational, and environmental correlates of health;
C increase understanding of the relationship between health status and health care utilization, including alternative as well as traditional services;
C follow a panel of people over time to provide information on the dynamic process of health and illness;
C provide the provinces and territories and other clients with a health survey capacity that will permit supplementation of content and/or sample;
C allow the possibility of linking survey data to routinely collected administrative data such as vital statistics, environmental measures, community variables, and health service utilization.

Survey content is selected according to the following criteria:

C Information should relate to and help monitor the health goals and objectives of the provinces and territories. Where health goals are broader, for example, at the national level, policy and programs could be considered in the selection of survey content.
C Information available from other sources should not be duplicated.
C To increase understanding of health and its determinants, information should be collected in areas that have not been adequately studied.
C The survey should focus on behaviours or conditions amenable to prevention, treatment, or intervention.
C The survey should collect information about conditions that impose the greatest burden, in terms of suffering and/or cost, on individuals, the general population, or the health care system.
C The survey should collect information on factors related to good health, not just illness.

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Reflecting these guidelines, the questionnaire includes components on health status, use of health services, risk factors, and demographic and socioeconomic characteristics. For example, health status is measured through questions on self-perception of health, functional ability, chronic conditions, and activity restriction. The use of health services is measured through questions on visits to health care providers, hospital care, and drug use. Behavioural risk factors include smoking, alcohol use, and physical activity. In addition, a special focus of the first survey was psychosocial factors that may influence health, such as stress, self-esteem, and social support. Demographic and socioeconomic information includes age, sex, education, ethnic origin, household income, and labour force status.

Data collection began in 1994 and will continue every second year. Initial contacts with the sampled households are face-to-face; all information is gathered by computer-assisted interviewing. Basic information is collected on all household members. Information related to behaviour or based on self-perception is collected in a personal interview with a randomly selected member of the household, who thereby becomes the panel respondent. Panel respondents constitute the longitudinal sample, who will be surveyed every second year for up to twenty years.

The NPHS target population includes household residents in all provinces and territories, except persons living on Indian Reserves, on Canadian Forces Bases, and in some remote areas. An institutional component of the survey, documented elsewhere,[2] covers long-term residents of hospitals and residential care facilities.

The production of provincial cross-sectional estimates was one of the objectives of the 1994 survey. The sample size, originally 22,000 households, was increased through provincial buy-ins to 26,000 to allow for sub-provincial estimates. Data collection was carried out in four periods: June, August, and November 1994, and March 1995. A different set of households was surveyed in each period.

Sample design for the household component

Four factors shaped the design of the household component sample:

C the targeted national and provincial/territorial sample sizes;

C the decision to select one member per household to make up the longitudinal panel;
C the choice of the Labour Force Survey (LFS) as a vehicle for selecting the sample; and
C the decision to integrate the NPHS with the National Longitudinal Survey of Children.

The first three factors resulted, respectively, in the allocation of the sample, the application of a technique (the "rejective approach") to improve the sample's representativeness, and the selection of provincial samples outside Quebec.

The respondent selection rule

Some health surveys collect information on only one household member. This "one-member" approach was used for the 1990 Canadian Health Promotion Survey[3] and the 1992-93 New Zealand Household Health Survey.[4] A number of other surveys, such as the 1978-79 Canada Health Survey,[5] the 1990 Ontario Health Survey,[6] the 1992-93 *Enquête sociale et de santé* in Quebec,[7] and the annual National Health Interview Survey[8] in the United States, interviewed all household members.

There are advantages and disadvantages to interviewing all household members. One benefit is that intra-household relationships between health-related characteristics can be explored. And compared with interviewing just one member of a household, the cost of interviewing all household members is only incrementally greater.

A disadvantage of this approach, in addition to the heavier household respondent burden, is that strong correlations between household members in certain characteristics make the sample less informative, in some respects, than a sample of the same size drawn from a larger number of households. Furthermore, from a longitudinal perspective, following all members of sample households is logistically more complex. Families split and form additional households, and the sample size increases.

The NPHS is a compromise between the one-member and all-member approaches. The survey collects most information from a single household member, but also, limited health-related information, including socioeconomic characteristics, health care utilization, restriction of activities, and chronic conditions, for all household members. This permits in-depth questioning of the selected respondent in a one-

hour interview, yields a disaggregated sample with respect to household characteristics, and simplifies longitudinal follow-up. Each time the longitudinal panel respondent is re-interviewed, the same basic health-related information will also be collected from all members of the household in which he or she is then living.

One disadvantage of defining the panel as one member per household while collecting limited information from all household members is the cost of contacting enough households to get the requisite number of panel respondents. A compensation for this cost is the higher yield of respondents to questions related to socioeconomic and health status.

Another potential disadvantage of the NPHS approach is that the longitudinal panel would contain a disproportionately high number of people living in small households, because an individual's chance of being in the panel is inversely related to the number of persons in that household. This problem was partially alleviated by rejecting some households that did not include anyone under age 25 (this is described in more detail below).

With the NPHS approach, two sets of weights are needed for estimation. One weighting factor, based on the inverse of the probability of selecting the household, is used to weight the responses from all household members. The other weighting factor, based on the inverse probability of selecting the household multiplied by the inverse probability of selecting the panel member in the household, is used only for the responses of panel members. The latter weighting factor, which depends on household size, can fluctuate from household to household, and thus result in higher variability of survey estimates for the panel than if all household members were in the panel. However, if all household members were to participate in the panel, some fluctuation in the panel weight would be unavoidable as households split, grow, or decrease in size.

The rejective approach

To enhance the representativeness of the panel, a "rejective" technique was applied. Since only one member of each sample household was selected for in-depth interviewing and participation in the longitudinal panel, the chance of an individual's being included in the panel would be inversely related to the number of persons in that household. The panel would tend to underrepresent people in large households, typically parents and dependent children, and overrepresent people in small households, who are often single or elderly.

The rejective approach was applied by identifying a portion of the sample households for screening, and dropping households that did not have at least one member under age 25. To maintain targeted sample sizes, the expansion factor $1/(1-P_d)$, where P_d is the anticipated proportion of households dropped using this method, was applied to the sample sizes. P_d was generally calculated at provincial levels but applied at the individual strata levels within provinces. As a result, although provincial sample sizes were restored, the proportionally allocated strata sample sizes were not. The sample size increased for strata with lower percentages of households with no member under age 25, and decreased for strata with higher percentages of households with no member under age 25.

Before the rejective approach was adopted, several other techniques were considered. One possibility was to increase the relative chance of selecting for the panel household member types that are underrepresented, such as children. However, because underrepresentation was an issue for large households, this would have increased the underrepresentation of other members of these households, such as parents. Another possibility was to increase the sample representation in areas with higher concentrations of large households. However, aside from apartment buildings, neighbouring households were not sufficiently alike, in terms of size, to yield satisfactory results. Finally, more traditional methods of improving sampling representativeness through subsampling were rejected because they would have required two sets of visits to the sample households, an option that was impractical. The exception was Quebec, where the availability of results from a recent provincial health survey allowed double sampling (an initial collection from a larger sample permitted grouping households by observed characteristics, and subsamples were then drawn independently from each group).[9]

The rejective technique employed for the NPHS performed better, in terms of costs versus coverage trade-offs, than other rejection rules considered. These included rejection of households without a member under age 20, rejection of those without at least three members, and a combination of these two rules. For cost and operational reasons, the percentage of screened households (that is, households to which the

rejective technique was applied) was usually limited to 25% to 30% in Ontario, 37.5% to 40% in urban areas elsewhere, and 25% to 30% in rural areas. The percentages were lower for rural areas because of the cost of contacting households there, and lower in Ontario because sample buy-ins, which are substantial in the province, did not involve rejective sampling (Table 1). Since apartment strata contain a high concentration of small households, their sample sizes were reduced instead of applying the rejective method. The rejective approach was not applied in remote regions because of the cost involved in contacting households; its use was also limited in areas where sample buy-in demands were substantial.

Original sample allocation

The NPHS budget allowed for a sample size of 22,000 households. A minimum of 1,200 households in each province and territory was needed to ensure reliable estimates by sex and broad age groups. Subject to this restriction, the base sample sizes for each province and territory were determined by using the Kish allocation, which balances the reliability requirements at national and regional levels.[10] According to this scheme, the sample was allocated proportionally to %$(0.804W_h^2 + 1/12^2)$, where W_h is the 1991 Census proportion of households in province/territory h, h=1,..,12. The provinces and territories could obtain larger sample sizes through "buy-ins" of additional sample units.

To improve the precision of survey estimates, it is preferable for provinces to be stratified geographically, and sometimes by socioeconomic characteristics, into relatively homogenous areas called strata. Within each province, the aim was to allocate the sample size to strata in proportion to their population sizes in terms of 1991 Census households. Proportional allocation was preferred because: a) it was optimal for provincial estimates of ratios and percentages; b) it could produce self-weighting samples (that is, units all have the same sample weight), which are simpler to analyze; c) it was a good compromise in designs where auxiliary information correlated with study variables was not available or where the multitude of characteristics studied was related to different sets of auxiliary variables; and d) it could simplify the use of a multi-purpose design for the sample.

However, proportional allocation is not "optimal", either to minimize costs for a given reliability or to maximize reliability for a given cost (collection costs are greater in rural and remote strata), when a survey is focused on the measurement of a single set of related characteristics, such as income. Proportional allocation also does not consider sub-provincial estimation requirements: the sample size is often inadequate to produce reliable estimates in certain regions.

Provincial buy-ins and other sample modifications

Four provinces decided to augment their sample to satisfy certain reliability criteria for specified sub-populations. In each case, the sample increase was allocated to specific health regions (sub-provincial geographic areas that the provinces use for administrative purposes). These buy-in additional samples will not normally become part of the longitudinal sample.

In Ontario, sample was added in each health region to allow for estimations of given accuracy for two or three age/sex groups by region.

In Manitoba, sample sizes of 450 households in Winnipeg and 225 in other health regions were requested. In both Ontario and Manitoba, the sparsely populated northern health regions were treated as a single region to keep buy-in sample sizes down. New Brunswick bought additional sample to increase the allocation in health regions 4, 5, and 7.

British Columbia requested a buy-in of 850 households strictly for the health region covering Prince George. As the increase was too great to be accommodated by locally available interviewers, most of the buy-in sample households were contacted using random digit dialling (RDD). Although RDD respondents are known to be reluctant to reveal their address, this method was appropriate because there were no longitudinal requirements of the buy-in sample. The non-RDD portion was incorporated into the regular sample requirements.

Sample sizes everywhere were further inflated by the number of households expected to be screened out by the rejective method.

To reduce response burden and data collection costs in the two territories, the NPHS and the National Longitudinal Survey of Children (NLSC)[11] samples and questionnaires were combined. Since a minimum of 1,500 households per territory was required to yield the required sample sizes of children for the NLSC, a rejective method similar to that applied in the provinces was used to omit 300 of those households from NPHS

collection. That is, the NPHS components of the integrated questionnaire were administered in only 1,200 households per territory.

Anticipated sample sizes by province and territory are shown in Table 1. Household sample sizes are indicated as households to be interviewed and those expected to be screened out, after a brief contact, as a result of the rejective method. The numbers represent private occupied dwellings before nonresponse (expected to be near 10%).

Sample selection

In all provinces except Quebec, the NPHS used the multi-purpose sampling methodology developed for the 1994 redesign of the Labour Force Survey (LFS).[12,13] The basic LFS design is a multi-stage stratified sample of dwellings selected within clusters. For design efficiency, each province is divided into three types of area: major urban centres, urban towns, and rural areas. Within the major urban centres, clusters containing approximately 150 to 250 dwellings are constituted and stratified by geography and/or socioeconomic characteristics. Some urban centres have separate apartment frame strata, and strata of Census Enumeration Areas (EAs) with high average household incomes. Six clusters or apartment buildings (sometimes 12 or 18) are selected from each stratum using a randomized probability-proportional-to-size (PPS) sampling scheme, where size is the number of households. The LFS design specifies that one-sixth of its sample is rotated every month.

Remaining towns and rural areas in each province are stratified within geographical areas by socioeconomic characteristics. The areas are usually intersections of Unemployment Insurance Commission regions with LFS-defined Economic Regions. In most strata, six clusters (usually Census EAs) are selected with PPS. In a few cases where the population density is relatively low, a three-stage design is obtained by first selecting two or three Primary Sampling Units (PSUs), usually groups of EAs, and then dividing each PSU into clusters, six of which are sampled. Selection at each stage is done with PPS.

The sample of dwellings is obtained after dwelling lists are completed for all sample clusters. Since sampling rates are determined before listing, the samples sizes often differ from the numbers anticipated. Excessive sample yields sometimes occur. To control collection costs, excess sample yields are adjusted by subsampling a portion of the originally selected units, and changing the design weights.

Subsampling is usually implemented at aggregated levels through a program called Sample Stabilization. As well, required household sample sizes are inflated to represent dwellings, experience having shown that overall 15% of dwellings do not contain in-scope households (for example, some are vacant or seasonal dwellings; others include households or people out-of-scope to the survey). The sample design yields about 60,000 households for the LFS. Surveys needing smaller sample sizes usually "reserve" from one to six rotations per province, a rotation being one-sixth of the total sample. Sample Stabilization can be used to maintain the sample at desired levels, as when two rotations are reserved but the sample size needed represents only 1.5 rotations.

The LFS sampling approach was modified to meet NPHS needs. As a result of sub-provincial buy-ins and other factors, the LFS design did not reflect NPHS sub-provincial allocation needs. A fixed number of rotations throughout a province would have been inadequate in some regions and/or inefficient in others. Thus, the number of rotations was allowed to be determined at sub-provincial levels.

Modification of the LFS design was also necessary to satisfy additional NPHS sample requirements at the cluster level. For variance estimation, sample clusters in each stratum had to be divided into two or more replicates (subsamples that are selected independently and identically). As well, the sample had to be distributed among the four collection periods, but to reduce costs, it was preferable to visit each cluster in one collection period only. The number of clusters selected per stratum thus had to be eight or a higher multiple of four.

Because of these modifications to the LFS design, the NPHS sample of clusters can be thought of as a stratified replicated sample where strata are groups of the original strata, and replicates are typically independent, identically distributed samples of four clusters each. There were exceptions, but they are not expected to have a significant impact on survey results.

Integration with the National Longitudinal Survey of Children

The National Longitudinal Survey of Children (NLSC) is a household survey that will follow a sample of about 25,000 children under age 12 over time. The sample was obtained from households with children that were currently in, or recently rotated out of, the LFS. Initial data collection took place in December 1994 and February 1995, and follow-up of selected children is planned for every two years thereafter.

Table 1

Sample sizes for the National Population Health Survey

	Original allocation	Buy-in sample	Household sample sizes		
			To interview	Screened out	Total
Newfoundland	1,220	...	1,221	171	1,392
PrinceEdward Island	1,201	...	1,199	223	1,422
Nova Scotia	1,270	...	1,270	246	1,516
New Brunswick	1,243	180	1,423	234	1,657
Quebec	3,584	...	3,479*	...	3,479
Ontario	4,817	2,183	7,001	1,021	8,022
Manitoba	1,307	493	1,800	324	2,124
Saskatchewan	1,287	...	1,288	257	1,545
Alberta	1,674	...	1,674	305	1,979
British Columbia (excluding RDD)	1,996	61	2,057	448	2,505
Sub-total	**19,599**	**2,917**	**22,413**	**3,229**	**25,642**
British Columbia RDD buy-in	...	788	788	...	788
Yukon	1,200	...	1,200	300	1,500
Northwest Territories	1,200	...	1,200	300	1,500
Total	**21,999**	**3,705**	**25,601**	**3,829**	**29,430**

* *The Quebec sample is less than allocated because 100 units were set aside to solve potential frame coverage problems.*

The NLSC and NPHS are being integrated, because the content pertaining to children is similar in each survey. In the territories, the surveys use common questionnaires and household samples. Integration in the provinces is limited to collection of common data for children and use of a common computer-assisted personal interview application.

In the provinces, the NPHS provides a sample of 4,000 to 5,000 children to the NLSC, thus allowing a reduction of the NLSC sample size. In NPHS-sampled households in where a child is selected for the panel, the detailed children's questionnaires are administered to all children (subject to a maximum of four). After collection by the NPHS, the detailed data on children is processed by the NLSC and used in its survey estimates.

Because of scheduling constraints, children were not selected for the NPHS panel before the third collection period (also called quarter). This distorted the seasonal representativeness of children in the panel and reduced their sample size. To increase the sample yield of children without affecting the seasonal representation of other household members in the last two quarters, part of the NPHS sample was reassigned to these quarters. The reallocation was applied to households within clusters, rather than to entire clusters, because the decision was made after the sample operations described above were carried out.

Figure 1 illustrates how the sample distribution was revised for the integration of the NPHS and NLSC. The square on the left represents a cluster assigned to quarters 1 or 2. The square on the right represents a cluster assigned to quarters 3 or 4. Households are classified by type into: (I) households with children (under age 12); (II) households with youths (persons under age 25, but no children); and (III) households without children or youths. The sample is divided into an "adult" sample and a "child" sample. In "adult" sample households, only persons aged 12 or over can be selected for the panel. Procedures for "child" sample households vary according to the household type. If there are children in the household (type I household), one of them is selected at random for the panel. If no children are present, the household is either rejected (applicable to type III households that are screened for rejection) or a member aged 12 or over is selected for the panel (type II and type III households not subjected to screening).

Adult sample

Adult sample
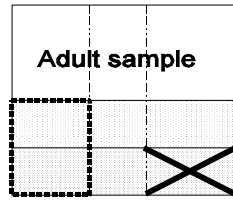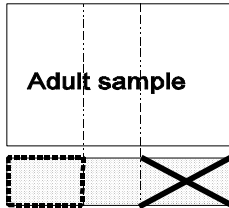
Household types:

(I)   With children

(II) Youths, no children

(III) No children or youths

Child sample:

Not screened

Screened

Child s

Screened out

an attempt was made to obtain a subsample from the ESS which, as far as the selected panel member was concerned, would be proportional to the populations in the four household types. This was done by drawing a sufficient number of households from the ESS to give the required yield of households with children (the most underrepresented group), and then removing excess sample from the other three household groups. Thus, while sample sizes almost 50% higher than allocated were selected in each class, after two-thirds of one-member households, one-half of other households with no youths or children, and one-sixth of households with youths but no children were removed, the objective was nearly attained. The same ratios were applied in all classes, because their distributions of household types were similar.

As elsewhere, considerations of seasonal representation, variance estimation, and integration with the NLSC affected subsampling in Quebec. ESS strata were collapsed to allow the formation of replicates, with the clusters in each replicate covering all four quarters (two quarters are covered by cluster in the rural and small urban sectors, because as sample sizes are higher there).

The sample of households with children was split into an "adult" and a "child" sample by a 3:2 ratio. "Child" sample households in quarters 1 and 2 were reassigned to quarters 3 and 4. In quarters 3 and 4, the samples of households without children were also split, by a 2:3 ratio, into an "adult" and a "child" sample. This gave children who were born into or otherwise joined these dwellings sometime between the ESS and the NPHS a chance of being included in the panel. If no children were present, a member aged 12 or over was selected for the panel in the "child" household (there are no rejections in Quebec).

Table 2 gives the expected distribution of the sample based on ESS data. The slight overallocation of one-member households is intentional. This group has higher nonresponse rates and is the most likely to increase as household compositions change.

Sample design in the territories

In the Yukon and the Northwest Territories, the NPHS and NLSC were conducted as a single survey to reduce the much greater respondent burden and collection cost there. A sample of 1,500 households, including 300 to be screened out, was selected in each territory to allow a sufficient yield of children for the NLSC. This assumed that children in sample households were covered for the NLSC (subject to a maximum of three children per household).

In the Northwest Territories, households were selected randomly from each community of 100 people or more. A few remote communities were excluded.

In the Yukon, random digit dialing (RDD) was used in Whitehorse and three medium-sized communities. Elsewhere, households came from a PPS sample of larger communities. Nine communities and areas were excluded because of their small size or the cost of covering them. Where RDD was not used, face-to-face interviews were conducted. Exclusions accounted for 2% and 15% of the populations in the Northwest Territories and the Yukon, respectively.

Anticipated distribution of the sample by age and sex

Table 3 gives expected distributions by age and sex for the total of the provincial samples excluding the RDD buy-in sample in British Columbia. Figures are approximate because the sample design, the rejective method, respondent selection, and survey nonresponse all introduce variation. Nonresponse, for example, is expected to reduce the sample yield by about 10%.

The figures do not reflect two changes that occurred late in the development of the design. The decision not to shift the sample toward quarters 3 and 4 in Prince Edward Island reduced the number of households with children, and hence, the number of children in the panel. Also, after quarter 1, it was discovered that 12-year-olds were not being selected into the panel. Compensatory measures were taken only for quarters 3 and 4, so that the seasonal sample distortion for 12-year-olds would be the same as that for persons under age 12.

Full sample results are based on the entire composition of sample households, and panel sample results are based on the distribution of the selected respondents to the panel (one per household). The full sample figures are presented because some of the survey questions are administered for all household members.

The representativeness of the selected panel respondents is enhanced by the rejective method outside Quebec, and by the special design in Quebec.

Outside Quebec, the rejective method reduced the underrepresentation in the panel of respondents from type I households (households with children) by an estimated 37%. The rejective method also diminished by half the overrepresentation from type III households (those with no one under age 25). As noted earlier, results for Quebec were even better.

Regarding integration with the NLSC, notwithstanding the Prince Edward Island exception, the expected number of children interviewed for the NLSC is 4,746 (2,434 boys and 2,312 girls). It is higher than the number for the panel, because the NLSC will cover all children in "child" households in the provinces, up to a maximum of four.

Future design issues

The sometimes conflicting objectives of longitudinal and cross-sectional estimation raise design issues for future waves of the NPHS. After a number of years, the longitudinal panel, although able to produce good cross-sectional estimates in 1994, would become inadequate for cross-sectional estimation. By 2004, over one-sixth of the Canadian population will have been born or have immigrated since 1994.[14] Recent arrivals will be covered in cross-sectional estimates only if they live with someone who was eligible for panel selection in 1994. Reliability will also decrease because of attrition, that is, loss in sample size due to deaths, nonresponse, movements out-of-scope, and untraceable situations (for example, people who moved to an unknown address).

Table 3

Estimated sample yield for the National Population Health Survey, by age and sex

	Total	Under 12	12-24	25-44	45-64	65 and over
Full sample results (all household members)						
Total	**65,578**	**12,712**	**13,799**	**21,951**	**11,506**	**5,610**
Males	32,500	6,513	6,988	10,657	5,851	2,491
Females	33,078	6,199	6,811	11,294	5,655	3,119
Panel sample results (one member per household)						
Total	**22,431**	**2,839**	**4,004**	**7,738**	**4,585**	**3,265**
Males	10,808	1,458	1,982	3,824	2,246	1,298
Females	11,623	1,381	2,022	3,914	2,339	1,967

Two approaches for topping-up the sample sizes to maintain the reliability of cross-sectional estimates were proposed. One was to top-up future wave samples to the 1994 level to replace the loss to attrition. Another, which was adopted, was to "save" the top-up sample size needed for one wave and pass this "saving" to the top-up sample size for the next wave. This means that sample sizes will be lower in 1996, 2000, 2004, etc., and higher in 1998, 2002, 2006, etc., but on average, remain even. The advantage of this method is that in the latter years, more sample will be available to improve cross-sectional estimation. Years with lower sample sizes will still cover the longitudinal sample, but cross-sectional estimates will be less reliable.

Follow-up of the 1994 panel respondents poses operational and methodological problems. Some people who move are difficult to locate or trace. Unfortunately, such people often have characteristics that differ from those of the general population (for example, more are young, male, and unemployed). Therefore, it will be necessary to trace as many movers as possible to minimize the potential bias created by their nonresponse. In 1994, panel respondents were asked to provide the names and locations of contacts who may know their whereabouts, should they move. Other steps are being taken between waves to identify movers and find them. These include sending a letter asking respondents for their new address if they have moved or are planning to move, making arrangements with Canada Post to get addresses of movers, and setting up computer-assisted tracing to pass "cases" to the interviewer or Regional Office most likely to locate them. Other issues involve the future shape of NLSC integration, seasonal readjustment, if any, of the sample by collection period, and the follow-up of 1994 nonrespondents.

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