THE 1991 HEALTH PROVIDER INVENTORY AS A SAMPLING FRAME

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Introduction

As part of 1992-1993 National Medical Expenditure Survey (NMES) - Institutional Population Component (IPC) feasibility test, two frames, one of nursing homes (NH's) and one of facilities for persons with mental retardation (FMR's) were created. This was done using the 1991 Health Provider Inventory (HPI) conducted by the Bureau of the Census for the National Center for Health Statistics (NCHS). This paper focuses upon the results of that process and includes discussions of response, classification of facilities as NH's or FMR's, coverage, duplicates and implications for future IPC's.

Background

The Agency for Health Care Policy and Research conducted the National Medical Expenditure Survey (NMES) in 1987 and plans to repeat this survey in 1996. As part of NMES, AHCPR collects expenditure and other data for a nationally representative sample of persons in nursing and personal care homes (NH) and facilities for persons with mental retardation (FMR). This is called the Institutional Population Component (IPC). The IPC universe is all persons who spend at least one night in a targeted facility during the survey time frame.

To collect this sample, AHCPR relies on the development of a list of such facilities to be used as a sampling frame. For the 1987 survey, the list was a subset of the 1986 Inventory of Long Term Care Places. This is a list developed by the National Center for Health Statistics for which data was collected by the U.S. Census Bureau [Scirroco, 1988]. In 1992 as part of a feasibility study aimed at assessing procedures for the 1996 IPC, a small sample feasibility study was conducted. Among the issues to be addressed were questionnaire design, use of Computer Assisted Personal Interviewing (CAPI), comparisons of alternate sources of similar data and their quality, response rates, general operational issues and costs, sampling methodology and frame development. The sample frames for this study were developed from the 1991 Health Provider Inventory (HPI), the direct descendant of the 1986 ILTCP. This list was again collected by the U.S. Bureau of the Census for NCHS. This paper briefly describes the development of the 1992 IPC frame, describes results in key areas, compares this experience with the 1987 experience and makes recommendations based upon lessons learned.

The original 1986 ILTCP was sponsored by NCHS, the Health Care Financing Administration (HCFA) and the National Center for Health Services Research and Health Care Technology Assessment, the latter being AHCPR's predecessor agency. The list was created from two sources. For potential nursing homes, the 1982 National Master Facility Inventory (NMFI) was updated [Scirroco, 1988] for the first ILTCP data collection. FMR's were obtained by updating the National Census of Residential Facilities (NCRF) [Hauber, et al.; 1984]. This was provided by the Center for Residential and Community Services at the University of Minnesota. Due to time constraints it appears that NCHS was not able to recontract all sources used to produce the NCRF [Lakin, et al., 1989]. This led to undercoverage, especially for smaller FMR's.

The original combined list for the ILTCP contained 56,728 facilities. These facilities were surveyed first using a mail questionnaire with a field follow up for non response. This yielded 46,857 in scope facilities (in business) which were classified as NH's, FMR's, both or neither according to a set of definitions which included type of care given, clientele and license status.

To classify facilities, a hierarchical classification scheme was used. The process yielded 21,795 NH's, 14,004 FMR's and 3131 facilities which qualified as both [Potter, et al., 1987].

The process used to develop the frame for the 1992 IPC feasibility study was very similar. Beginning with the 1986 ILTCP, NCHS first updated the list in 1989, to obtain 64,128 units, by recontracting sources used to create the 1986 list. To this update further units were added by Lewin ICF/James Bell and Associates in 1990 [Lewin, et al., 1990]. This group developed lists of state licensing agencies and associations of potential personal care homes. This second updating was performed under contract, as an attempt to rectify the undercoverage of personal care type facilities previously noted. This second process added another 9673 records to give a final total of 73,801 potential establishments on the list.

These units were broken into two groups. [Scirroco, 1993]

a. - a group of 16,549 facilities which were on the 1986 ILTCP and which included most of the medicaid or medicare certified NH's, state licensed NH's, long term care units of acute care hospitals and large certified FMR's. These will be referred to as Group 1.

b. - 57252 other facilities, mostly smaller personal care type facilities, although any skilled or intermediate care facility built since 1986 and the small number of these units not in Group 1 which were built before 1986 would also be in this group. These will be referred to as Group 2.

These groupings do not break the population into two "pure" groups, but the variable gives a reasonable break and is useful for analysis.

As with the 1987 frame, in 1992, AHCPR determined out of scope units and then classified units into the 4 categories, NH, FMR, both or neither. Because of slight changes in the questionnaire and problems with responses, the classification processes were altered somewhat from those of 1986 [Potter, et al., 1987]. The following sections discuss the results of this process, potential problems and comparisons with 1987 results.

Response Rates

Tables 1 and 1A show selected results of the data collection for the 1991 HPI. It is difficult to compare these results with those for the 1986 ILTCP because of the large amount of non response and subsampled units. Due to lack of funds, 8578, or half of the 17156 Group 2 units which did not respond to the mail questionnaire, were subsampled, 21.4% of all units were incomplete due to subsampling or nonresponse. The smaller Group 2 units had 26.3% incomplete. Much of this difference was due to subsampling. However, of the 41,383 Group 2 units attempted, 15.6% (6446 ÷ 41383) were nonrespondents. Of the Group 1 units only 5.4% of the units attempted (781 ÷ 14575) were nonrespondents. This higher nonresponse among small facilities was also evident in the 1986 ILTCP [Wilson, 1986].

Overall, 78.6% of the units were completed in 1991 (out-of-scope or respondent). This compares with over 97% in 1986 [Potter, et. al., 1987]. Even removing subsampled units, the rate for 1991 is still lower, with most problems among the smaller Group 2 units. We can speculate that this differential response, combined with the much larger percentage of personal care homes on the list, led to the surprising number of facilities remaining for field followup after the third mailout and the apparent shortage of funds. This response rate differential must be considered for any future survey.

Coverage

I. Background

There was concern that the ILTCP as a frame had significant undercoverage. A significant portion of this undercoverage was due to lack of coverage of the establishments in business, when the lists were generated, and not due to births of new establishments.

Among the evidence of this lack of coverage are the following:

1. A comparison of the 1986 ILTCP with the original 1982 NCRF indicated the ILTCP was missing many of small FMR's [Hauber, et al., 1984].

2. Comparisons conducted by other researchers of results of the ILTCP and the number of facilities and residents found in state reports on persons with mental retardation showed 251,908 persons with mental retardation in FMR's on June 30, 1986. NCHS estimates of individuals in this type of facility made using the 1986 ILTCP were 217,000. Similar estimates were obtained using the 1987 IPC sample [Lakin, et al., 1990]. This indicated coverage of 86% for residents of this type of facility. Most of this difference appeared to be concentrated in smaller units. Other sources indicated that there were 29,285 state reported FMR's of which approximately 2000 had more than 15 residents [Lakin, et al., 1990]. The ILTCP had about 2000 larger facilities, but had approximately 15,000 total FMR facilities [Potter, et al., 1987].

3. Internal AHCPR studies of patients selected for the original 1987 IPC sample who moved to another facility indicated that some persons who moved to another NH, moved to one which was in business at the time of the ILTCP but was not on the frame [Mueller, 1988], [Weirnmont, 1989]. Other analysis showed some hospital based skilled nursing facilities were not included on the ILTCP. Also, as with FMR's, a significant number of small NH's may not be on the 1986 file.

Such indicators of undercoverage, along with a growing importance of personal care facilities [Lewin, et al., 1990] was a significant reason for the extra work which added 9673 facilities to the NCHS frame for 1991.

II. Classification

To analyze coverage we compared number of beds, residents, and facilities from other sources to results for the 1991 HPI. We first classified the in scope units. This left approximately 10,000 unclassified facilities due to nonresponse.

To estimate potential numbers of facilities, we adjusted the number of unclassified downward to account for potential out-of-scope facilities, then prorated the remaining facilities using rates obtained for

facilities that could be classified. The projected number of residents was then estimated by the projected number of facilities times the number of residents for that type of facility for those facilities actually classified into the cell. The resulting projected number of facilities and residents before any unduplication is seen in Table 2.

III. Analysis of Nursing Home Coverage

There were 16164 certified NH facilities on the 1986 ILTCP and 17333 on the 1991 ILTCP.

The estimated number of certified facilities agrees with the approximate number, from other sources [Harrington, et al., 1990]. However the number of personal care homes increased from 7415 in 1986 to 11620 in 1991. Of this gain about 2800 came from the Lewin supplied units. It is difficult to determine the overall effects of updates on the process because of no availability of an estimate of undercoverage for 1986 and no real benchmark for 1991.

However, Table 3 shows some results from projections of residents which give some indication of better coverage.

To get a projected total for 1991 from the 1987 NMES, we corrected the NMES results for an estimated 1.9% growth rate [Harrington, et. al., 1990]. This yields 1.643 million residents in 1991. The 1991 HPI estimate is 1.772 million is 7.9% greater than the projected number.

If the 2800 extra NH's, from the second update were subtracted from the total HPI there would be approximately 105,000 less NH residents on the HPI. Without these units, the 1991 HPI would have a population very similar to the projection. Thus for NH's the update appears significant.

IV. Analysis of FMR Coverage

Comparisons were made with 1987 NMES estimates for persons with mental retardation and state reported numbers for FMR's [Lakin, et. al., 1990]. NMES estimates of 218 thousand were compared to state estimates of 251.9 thousand for 1987. This would indicate an 86% coverage. However, the NMES estimates and state estimates do not include the same populations. The state population included 17,000 residents in facilities without 24 hour supervision and 3,000 in FMR's with less than 3 residents. [Lakin, 1989]. Neither of these groups were included in NMES numbers. Adjusting NMES gives a 93.6% coverage. For 1991 we compared the HPI numbers with the state figure of 289.3 thousand [Lakin, 1992]. We compared the HPI total, the HPI total adjusted downward for potential duplicates and the HPI less the Lewin supplied facilities.

The AHCPR numbers are very similar to state results and better than 1987.

Much of this improvement is due to the approximately 3400 extra, small FMR's among the 9673 facilities added from the second update. These units added 27,000 persons with mental retardation to the 1991 HPI. Without these the coverage would be much worse.

Thus as with nursing homes, for FMR's we can generally conclude that the 1991 coverage was improved over the 1986 coverage with a significant portion of this improvement due to the addition of extra units in the lists developed during the second update.

Quality of Classification

There is little information at this time that indicates quality of the general classification of establishments is much different than for the 1986 ILTCP. In that survey about 1% of the NH's in the IPC sample were out of scope. For FMR's the number was about 7% [Cohen, et al., 1993].

For an important subclassification used in sampling and estimation, there could be a significant problem in responses. This is certification. This is the process by which NH's are certified to pass a standard set by either Medicare or Medicaid and FMR's are certified to pass a standard set by Medicaid. The certification process involves facility beds, so no facility is certified without having certified beds. Most certified facilities are larger, skilled facilities.

The indications of these problems are many. For instance:

1. About 24,000 establishments claimed to have certified nursing home beds, in 1991, whereas state surveys for 1989 show only 16,354 [Hurrington, et. at., 1990] such facilities with little growth in ensuing years.

2. Over 4000 board and care homes, which claimed no certification status, claimed to have certified beds.

3. Over 10,000 facilities or almost a quarter of the eligible respondents claimed to have more certified beds than total beds.

4. 1500 facilities claimed to be certified FMR's yet had no certified MR beds, but had certified NH beds.

5. In 1991 8500 FMR's said they were certified or had certified beds. The number from other sources was less than 4000 [Braddock, et al., 1990].

Because of this confusion we required that to be certified a respondent both claim to be certified and have some type of certified beds. With this rule we had 16,310 certified NH's and 7200 certified FMR's. We made no further effort to correct the overestimate of certified FMR's.

A combination of factors probably played a part in this problem:

1. Other types of licensing for personal care homes

was apparently confused with certification.

2. FMR certification waivers may have been confused with certification.

3. Wording of questions on certified beds might have caused confusion.

4. Some beds are actually certified both ways and the respondents may have entered the same bed twice.

Duplicates

As part of the frame cleaning process, we attempted to remove duplicate units found in the 12 PSU's included in our feasibility study. We searched for establishments with similar names, addresses, the same ID number or phone number. We grouped and reviewed any sets where the establishments in the group contained an unbroken chain of similar units. If two facilities had the same name and a third facility had the same phone number as the second, all three were reviewed together. These groups were reviewed and duplicates were removed. Removal was done using a set of characteristics of each facility such as size and type of facility. Only if there was very definite agreement was a facility removed. 45.2% of the units were reviewed and 3.0% of the total were removed. In 1987, when unduplicating the entire ILTCP, 16.2% of the facilities were checked as possible duplicates and 2.8% of the total were removed as duplicates, [Potter, et. al., 1987]. We reviewed about 3 times the percentage but removed about the same percentage. Our removal rate was only slightly higher than before. We added the ID number and phone number as matching factors with little result. Of the total number reviewed 61.9% were flagged because of ID number and telephone number, yet this group only contributed 13.3% of all duplicates found. If we had not used these factors, we would have reviewed 17.2% of the units and would have found 2.6% as duplicates. These last results correspond well with those in 1987.

In our small feasibility study sample we found no other duplicate facilities. However, in 1987 we found that in our sample 1.4% of the 1714 facilities were duplicates [Cohen, et. al., 1993]. This small percentage of duplicates had a very significant affect upon results. The reweighting of the involved units reduced the estimate of the number of residents in nursing homes 4.5%. The FMR's dropped 11.5% after reweighting.

We believe that if our 1992 sample had been larger we would have experienced similar results. We felt that with the data we reviewed there were significant numbers of confusing cases which we were forced to leave on the frame rather than delete and create bias. Thus we see no reason that with a larger sample we would not again experience at least 1% duplicates in our sample.

Conclusions

From our experience with the 1991 HPI we have learned several important lessons and will take steps to make improvements for the next IPC. Among the areas to be addressed and actions are:

1. If licensed personal care facilities are considered in scope for future NMES, efforts such as those performed by Lewin in 1991 must be repeated to use as many possible establishments from Federal and State lists for possible inclusion on the frames.

2. Efforts must be made to improve the questionnaire in order to provide better data for classification of establishments. In order to do this a new trial questionnaire needs to be developed and tested.

3. The types of units to be surveyed and their varying response rates must be considered and adequate time and budget must be allowed in order to significantly reduce nonresponse.

4. Careful review for duplicates will again take place. Further, operational methods will be developed to flag potential duplicates on the frame which are included in the sample and to investigate these facilities during data collection.

References (upon request)

Table 1
Unit Disposition by Final Status

	Number		% of Total	
Inscope		64,536		87.4
Attempted	55,958		75.8	
Respondents	48,731		66.0	
Non-Respondent	7227		9.8	
Subsampled	8578		11.6	
Out-of-Scope		9265		12.6
Out-of-business	5849		7.2	
Could not locate	114		0.2	
Respondent under another name	2207		3.0	
Other	1095		1.5	
Total		73801		100.0

Table 1A
Unit Disposition - Group 2

	Number		% of Total	
Inscope		49961		87.3
Attempted	41383		72.3	
Respondents	34937		61.0	
Non Respondents	6446		11.3	
Subsampled	8578		15.0	
Out-of-scope		7291		12.7
Total		57252		100.0

Source: National Center for Health Statistics: 1991 Health Provider Inventory.

Table 2

Projected Residents - 1991
(Before Unduplication)
Entire Nation

	Group 1	Group 2	Total
Facility Type			
NH			
Total	1217308	605843	1823151
Ave	(94.71)	(37.63)	(62.97)
Units	12853	16100	28953
FMR			
Total	16855	156018	172872
Ave	(40.42)	(9.38)	(10.14)
Units	417	16633	17050
NH and FMR			
Total	82149	56901	139050
Ave	(83.40)	(16.00)	(30.61)
Units	985	3557	4542

Source: Agency for Health Care Policy and Research: Classification Results of 1991 HPI

Table 3
Comparison of Nursing Home Populations

	Residents (000's)	Ratio to 1991 NMES Projection
1987 NMES	1,524	.928
1987 NMES Inflated to 1991	1,643	1.000
1991 HPI (corrected for duplication)	1772	1.079
1991 HPI (without LEWIN units)	1667	1.015

THE PREVALENCE OF ALCOHOL AND OTHER DRUG ABUSE AND DEPENDENCE IN SHORT-TERM GENERAL HOSPITALS

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The hospital is a complicated environment for the survey researcher. This paper summarizes the challenges—and strategies for meeting these challenges—in the context of the National Institute for Alcohol Abuse and Alcoholism (NIAAA) Hospital Study, being conducted by Abt Associates Inc. The paper focuses on five subjects: (i) the objectives of the Hospital Study; (ii) sampling hospitals; (iii) gaining hospital cooperation; (iv) sampling hospital admissions; and (v) procedures for reducing hospital burden. The use of a pilot study to test survey procedures will also be discussed.

Survey research can impose a substantial burden on hospitals. On this criterion of respondent burden, survey research can be contrasted with surveillance systems which impose a relatively low burden on hospitals over a long period of time as well as contrasted with continuous surveys like the National Hospital Discharge Survey (NHDS). Like the NIAAA Hospital Study, the NHDS involves a national probability sample of hospitals. But the NHDS has been conducted continuously since 1965, while the NIAAA Hospital Study is a short duration data collection effort. In the NHDS, each sample hospital follows a manual or automated procedure for an annual sample of discharges. This type of lower intensity, long-term commitment by a hospital is very different than the commitment needed for the short-term and fairly intense data collection effort conducted by Abt Associates' field interviewers. This may partially account for why many research studies similar to the NIAAA Hospital Study are conducted in one or more purposively selected hospitals. Designing a survey that is sensitive to the substantial burden that the study can place on hospitals is one of the underlying goals of the NIAAA Hospital Study.

Objectives of the Study

The primary objective of the hospital study is to estimate national prevalence rates for alcohol abuse or dependence among males and females admitted to short-term hospitals for 24 hours or more. Prevalence estimates will be based on DSM-III-R criteria using items from a diagnostic interview schedule that measures alcohol abuse and dependence. Responses to the diagnostic interview will be validated against information abstracted from patients' medical records: ICD-9 discharge diagnoses, discharge summary data, and blood biochemistry data.

We also wish to investigate the association between alcohol abuse or dependence on the one hand and hospital costs and utilization on the other. Findings from our pilot study suggest that alcohol abuse or dependence may contribute to higher hospital costs by increasing the likelihood of a long-term stay. Moreover, results from the National Hospital Discharge Survey (NHDS) support the hypothesis of an association between alcohol-related diagnosis and length of hospital stay. The NHDS estimates that long-term patients are 3.5 times as likely to have an alcohol-related diagnosis as short-term stay patients. They also estimate that 2.8% of 21-and-over-day stay patients have an alcohol-related diagnosis listed first. In comparison, 0.8% of the remaining patients had a first alcohol-related diagnosis. Accordingly, an estimate of the prevalence of alcohol abuse or dependence among individuals who stay in the hospital 21 days or longer is also sought.

Sampling Hospitals

The NIAAA Hospital Study is designed to yield national estimates based on a probability sample of hospital admissions. The sample of admissions is the third stage of sampling in a multi-stage cluster sample design. The first stage of sampling involves the selection of 32 Primary Sampling Units (PSUs). PSUs are created in order to reduce between-hospital travel cost. The PSUs are individual counties or groups of adjacent counties. They are selected by using probability proportional to size (PPS) sampling, with the measure of size being the total number of hospital admissions minus total hospital births for a PSU. Births are subtracted because the target population is non-maternity hospital admissions.

The second stage of sampling involves the PPS sampling of hospitals within PSUs, using admissions minus births as the measure of size. The NIAAA Hospital Study, like the NHDS, uses the SMG Inc. hospital facilities data base as the sampling frame. SMG Inc. updates their data base on a quarterly basis, and is

therefore able to offer an up-to-date list of U.S. hospitals. Hospitals with a minimum of 1,500 admissions minus births are eligible for selection. Smaller hospitals are removed from the sampling frame both as a cost-saving measure and to avoid the excessive reporting burden that this study would place on such small institutions. These hospitals account for only 4.5% of total admissions minus births in the U.S.

The goal of the second stage of sampling is to recruit 96 hospitals that are willing to participate in a two to three week data collection effort. Because of hospital non-cooperation, it would be unrealistic to think that a second-stage sample of 96 hospitals would yield 96 participating hospitals. The design therefore allows for the selection of "primary" and "reserve" hospitals within each PSU. Hospitals that are within-PSU certainty selections are always assigned to the "primary" group, and an intensive effort is made to recruit these typically large hospitals.

Gaining Hospital Cooperation

The study will use a combination of mail contacts, telephone calls, and personal visits by AAI field staff to the hospitals' chief executive officers and members of Institutional Review Boards (IRBs).

For the majority of cases in the pilot study, the process of hospital recruitment was complicated and time-consuming, often requiring personal visits. The major reasons for hospitals' reluctance to participate were concerns about the timing of the scheduled data collection and the potential burden to the hospital. Reflecting on the experience of the pilot study, our plans for the main study have the following components:

- A letter and selected study materials introducing the study to the hospital's chief executive officer;
- A personal visit to sampled hospitals by a senior survey staff member;
- Presentation of study objectives and methods for protecting human subjects to hospital IRBs by a senior survey staffer;
- Provision of a Patient Consent Form to the sampled hospitals which can be administered to respondents in order to address questions of hospital liability;
- Flexibility in scheduling the data collection;
- Provision for paying sampled hospitals for abstracting medical records;
- Recruitment of a hospital staff member to serve as liaison between the hospital and study staff.

Hospital recruiting will begin with a letter to the chief executive officer of the hospital describing the study, its authorization and sponsorship as well as the voluntary nature of the study. The letter will also assure the confidentiality of the data and estimate the study's burden for hospital staff.

The key to our hospital recruitment strategy is the personal visit by a senior survey staffer. This staffer will address any concerns regarding the burden of the study on hospital resources and inpatients and will also make presentations before IRBs. From conversations with hospital respondents in the pilot study, we learned that the initial mailing probably engendered an inaccurate perception of the participating hospital's burden. The personal visit should be a more effective device for communicating the hospitals' role, as well as laying a business-like foundation for subsequent negotiations. A shorter initial letter, supported by letters from professional societies will be used for opening the door to a personal visit.

Other plans for gaining hospital cooperation include the provision of a Patient Consent Form to sampled hospitals. We will offer to administer it to sampled patients in order to allay hospital's concerns with legal liability. Flexibility in data collection will permit a hospital to participate when otherwise it could not because of participation in another major study, building construction, or other reasons. Should a hospital suggest that the medical abstraction task is burdensome, we will negotiate payment for the service. We also will recruit a hospital staff member with a strong personal or professional interest in the study to serve as a liaison and in-hospital advocate for the study. This person can be an administrator, practicing physician, head nurse, or clinical researcher sensitive to the issue of alcohol-related disorders.

Sampling Hospital Admissions

The goal of the NIAAA Hospital Study is to complete diagnostic interviews with approximately 2,000 male admissions, 500 female admissions, and 500 long-term stayers. The sampling of admissions will be discussed here. Admissions sampling will take place over a 14-day period. The design calls for a gender-stratified sample of admissions. A pilot study conducted by Abt Associates Inc. indicates that the prevalence rate of alcohol abuse or dependence among males is considerably higher than among females. Male admissions are therefore oversampled. A brief screening instrument, called the AUDIT, will be completed with a sample of around 5,500 male admissions. Responses to the AUDIT enable the field interviewers to determine if a patient is at high or low risk for alcohol abuse or dependence. All males who score positive on the AUDIT screening instrument will be selected for the DSM-III-R interview, while only a subsample of those who score negative on AUDIT are selected for the

interview. This approach makes it possible to oversample male admissions who are likely to be positive on the DSM-III-R interview. Screening females was concluded to be an inefficient use of study resources since, compared to men, far more females would have to be screened in order to identify the same number of high-risk patients. The sample of female admissions is therefore not screened but sampled directly from the hospital admission list for selection for the DSM-III-R interview.

The design parameters described above require the construction of separate lists of male and female admissions for each day of the 14-day sampling period in a hospital. A daily admissions list containing the names of persons admitted the previous day can be obtained from the hospital at the beginning of the data collection day. The list is then separated by the interviewer into two gender-specific lists, and obstetrical admissions are removed. Two systematic random sampling selection intervals, and random starts, are provided for each hospital, one for the male list and the other for the female list, as described further below. The intervals are applied over the 14-day period in order to avoid obtaining all of the sample from weekend or weekday admissions.

Once the screener is completed, it will be data entered using a notebook computer. A computer program scores the AUDIT instrument, applies a subsampling probability if the person scores negative, and indicates to the interviewer whether the individual should be scheduled for a DSM-III-R interview. The subsampling probability is calculated from pilot study data on the rate of false and true negatives and positives on the screener.

The selection of a sample of female admissions from each of the 96 hospitals will involve computing a within-hospital sampling interval for female admissions for each sample hospital that would yield a self-weighting sample of female admissions. The female admissions sampling rate computed for a sample hospital would be applied by drawing a systematic random sample of female admissions over the 14-day time period.

Similarly, the selection of long-term stayers will involve the calculation of a within-hospital sampling interval for each sample hospital that would yield a self-weighting sample of admissions that result in long stays. Because only about 4% of admissions stay 21 days or longer, sampling admissions prospectively would not yield an adequate number of long-term stayers for study. Therefore, a systematic random sample of long-term stayers will be drawn from a listing of all adult admissions that have a length of stay of 20 days or longer as of a predetermined day of the week.

Procedures for Reducing Hospital Burden

The study will use the following procedures to reduce the overall burden on hospital staff:

- A short, 14-day data collection period for each hospital;
- Variation in cluster size for male screening interviews;
- Use of a short screening instrument (5 minutes in duration) will reduce the number of full interviews (35-40 minutes in duration) needed for the study;
- Small cluster size with an average of 2.2 interviews per day per hospital;
- Pre-data collection briefing with hospital staff will facilitate coordination between hospital and study staff during data collection;
- Flexibility in scheduling interviews with patients in order to minimize disruption of provision of medical care;

A 14-day collection period is considered appropriate for several reasons. One, it is long enough to minimize disruption of hospital operations since few screens and interviews are done on a given day. Another reason is that two to three interviewers can handle the workload in a given hospital over this time period, thus minimizing the number of interviewers who need to be trained for the study. And more importantly, it allows for a variety of admissions including scheduled procedures such as surgery and tests and unexpected admissions due to injuries and illness.

Since the number of patients available for screening and interviewing will vary depending upon the patient population, we will adjust the cluster size for male screens depending upon the size of the hospital. In small hospitals the cluster size will be set at 28 completed male screens; in medium size hospitals it will be set at 34, and in large hospitals it will be set at 81 completed screens. The use of these different cluster sizes means that the sample selected for the male screeners will not be self-weighting.

The screener itself reduces hospital burden by enriching the interview sample with more individuals who will be diagnosed as positive on the interview. Without screening, a larger number of respondents would need to be interviewed in order to obtain a sufficient number of positives to meet study objectives. As a result, only 2 interviews on average will be performed each day in the hospital.

As mentioned above, the sample of male admissions is screened using a self-administered questionnaire. In several pilot hospitals, however, the administration requested that the interviewer stay with the patient while the screener was being completed.

Also, the pilot study showed that about half of the patients preferred to have some assistance from the interviewer. Typical reasons for requesting assistance included patient fatigue, vision problems, and difficulty in writing due to IVs. Occasionally a patient was illiterate as well.

A briefing will be held with hospital staff the week prior to data collection in order to familiarize the staff with the study and to allow the interviewing staff to meet the individuals they will work with in conducting the study. These include the hospital liaison, often a head nurse, the admissions staff, head nurses for the various wards or services within the hospital, and medical records staff.

Finally, once data collection starts, the interviewing staff will work with the nursing staff to schedule interviews around activities related to providing medical care. Often a hospital will not allow interviews in intensive care units (ICUs), but will notify the interviewing staff when a patient is transferred to an intermediate care bed. Nursing staff can also introduce interviewing staff to appropriate proxy respondents for patients who are too sick to respond for themselves. During the pilot study, 6.5% of completed interviews were done with proxies.

Conclusions

Hospitals, especially, large urban hospitals, offer a complex environment within which the survey researcher must work if data on hospital patients are sought. Conducting short duration research projects, involving primary data collection, in a fairly large national sample of hospitals is feasible if careful preparation takes place at the design stage. In addition to the usual sample design and instrument design considerations, procedures must be developed for gaining the cooperation of the hospitals and for sampling patient admissions in a timely fashion so that individuals can be located and interviewed before they are discharged.

AN AUTOMATED RECRUITING SYSTEM FOR MANAGING MULTIPLE ESTABLISHMENT SURVEYS

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INTRODUCTION

IMS America conducts ongoing surveys of various segments of the health care market (e.g., physicians, hospitals). The majority of the surveys utilize stratified sample designs, with telephone recruitment and mail collection. In some instances cold contact telephone interviews are conducted. To provide efficient sample management of these surveys, meeting both sample design and operational considerations, IMS has developed an automated recruiting and sample management system--the Data Supplier System (DSS).

The DSS manages the surveys from stratification of the universe through log-in of completed source documents. Functions included within the DSS include universe stratification, randomized sample selection, on-line recruiting/interviewing, recruitment and sample design monitoring, universe updates, mailing materials generation, log-in of completed source documents, respondent payments, and creation of history files for all studies handled by the system.

Within this paper the authors will discuss the functionalities provided by and the benefits received from the DSS.

BACKGROUND

IMS America conducts both ongoing and one-time surveys of the health-care market. To assist in the sample selection, data collection, and sample management tasks, IMS America recently developed the DSS. The DSS contains common functionalities of CATI systems related to sample and case management, on-line interviewing, and automatic record keeping (Nicholls 1988). In addition, the DSS provides capabilities for sample design and selection, inter-survey management, sending and logging of mail materials, and maintenance of the sample and the universe over time.

The development of the DSS has allowed IMS America to expand the level of stratification for the sample designs and to allow more management and control of the recruitment and data collection process.

The DSS is a generic system, thereby allowing additional surveys and universes to be efficiently added to the system. Since putting up the DSS for IMS America's physician surveys in the Fall of 1991, the applications for the DSS have more than tripled. This increase in the system's application is due to an increase in the number of physician surveys managed under the DSS and to the addition of new universes to the system, such as hospitals, pharmacies, and clinics.

The basic functionalities provided by the DSS are: 1) sample management; 2) sample design; 3) recruiting (which encompasses on-line call scheduling and case management, and on-line interview); 4) automatic record keeping; 5) preparation and log-in of survey materials; 6) preparation of data sets; and 7) universe maintenance.

DSS FUNCTIONALITIES

1. SAMPLE MANAGEMENT

The DSS sample management system extends beyond that normally designed into CATI systems. The DSS sample management starts with universe files rather than sample files, and extends to control of mail survey collection forms and to processing of compensation for survey respondents.

Following the data collection period, the DSS creates output files that contain the record of recruiting/reporting history for use in creating data coding control files. For telephone surveys, the DSS output file is fed directly into the survey data processing system for use in creating survey results.

In addition, the DSS provides for on-line access to sample management information on the universe and sample. This access includes history information from prior survey periods.

2. SAMPLE DESIGN

The DSS allows the survey designer to enter the sample design into the system, using characteristics stored on the universe file. The sample design is at two stratification levels. The first level defines the strata for which sample sizes are defined by the survey designer (design strata). The second level of stratification identifies the strata within design strata

for which the sample is to be allocated proportional to the universe size (sample draw strata). The desired sample size for each design stratum is entered into the DSS. The sample sizes may be determined based upon proportional, optimal, or any other allocation scheme desired by the survey designer.

Universe files are maintained within the DSS. The appropriate universe is randomized within stratum for selection within a survey period. Samples are selected and prepared for recruitment/data collection based upon the sample design entered into the DSS.

The DSS also allows for randomization of reporting periods for sampled units. This is often done to reduce respondent burden while maintaining a sample covering the entire survey period. For example, the survey period for a survey of physician patient contacts may be a calendar month. To avoid overburden, each physician may be selected to report data for a subsample of the days within the month. The DSS would randomly select reporting days for the physicians.

Given that multiple studies may be drawing sample and recruiting from one universe, it is necessary to have a set of rules that will control whether or not a sampling unit is eligible to be selected for a survey. These eligibility criteria rules are generically available within the DSS. The survey designer specifies which rules apply to a particular survey and the values to be used within those rules. The availability of generic eligibility criteria rules reduces product development costs.

Eligibility criteria are processed both as sample is being selected for a survey and before each sample unit is presented to a recruiter. Some rules only apply as part of the sample selection and other rules only apply during the recruiting process. There are three types of eligibility criteria: 1) universe eligibility; 2) intra-study eligibility: and 3) inter-study eligibility.

Universe eligibility rules determine if a sampling unit is eligible for selection based upon the characteristics of the sampling unit. This allows the survey to restrict the target population to a subset of the full universe. For example, if the target population for a physician survey was restricted to those in private practice, universe record eligibility rules could be set to restrict the records that would be eligible for selection to those with a private practice indicator.

Intra-study eligibility rules determine if a sampling unit is eligible for selection based upon prior collection periods for the same survey. This allows control of the design across survey periods as well as within a survey period. For example, if a sample was to report data relative to a calendar quarter based upon samples selected each month, intra-study eligibility rules could be set to restrict the sampling units eligible for selection in month 2 and 3 of the quarter to those units not selected in a preceding month of the quarter.

Inter-study eligibility rules determine if a sampling unit is eligible for selection based upon other surveys selecting from the same universe. This allows for control of both the sample design and the burden placed upon individual sample units. For example, inter-study eligibility rules may be set so as to restrict sample selected for a survey to be conducted in December to those sampling units not already selected to participate in a sample being conducted within the fourth calendar quarter.

3. RECRUITING

The DSS recruiting function consists of three major components. All three are designed to maximize the recruiter's productivity, preserve proportionality, and eliminate bias from the sample to the degree possible. These three components are recruiting, follow-up, and recruiting supervisor.

The recruiting component handles the three types of data collection conducted by IMS: 1) on-line telephone interviewing; 2) mail data collection following a telephone recruitment; and 3) cold contact mail data collection.

The first two data collection types are recruited by telephone, with sample units presented randomly within stratum. The sequence of presentation is the same, regardless of the number of recruiters assigned to the stratum (i.e., all recruiters are accessing from the same randomized sample).

When a sample unit is presented for telephone recruiting, the attempted contact may result in a busy signal or it may be an unanswered call. The DSS will track these occurrences and re-present the sample periodically based on pre-assigned timing intervals or on a call back time specified by the recruiter.

A contact with a sample unit may result in the respondent indicating that he/she is too busy to talk with the recruiter. The respondent may offer to call back at a later time, or may request that the recruiter call back at an agreed-upon time. These response types are tracked and the sample is re-presented when appropriate. Ultimately, the recruiter makes contact with the prospect and either collects the study data at the time of contact, as in the single contact telephone surveys, or elicits an agreement to participate in the mail surveys.

In the event that the sample unit is a nonresponse, a reason for the nonresponse is solicited and captured for historical evaluation. In all cases, both positive

and negative, the response is used to control the prospect's eligibility for future recruiting cycles.

In the third data collection type, agreements to participate are received by mail, and entered into the DSS as sample units. This occurs in response to a previous mailing, and therefore, there is no need for the handling of partially completed contacts described above.

The follow-up component applies to sample units involved in ongoing surveys, whether they were recruited by telephone or mail. Prior to each survey period, the sample units are contacted to re-enlist them for the survey. Partially completed contacts are also managed in this component.

The recruiting supervisor component allows for on-line real-time assessment of recruiting progress as compared to sample design, by design strata. Based on this assessment, the supervisor can shift the workload among the recruiting resources to ensure timely completion of the current recruiting cycle.

4. AUTOMATIC RECORD KEEPING

The DSS provides a call outcome coding system common to those seen in CATI systems (Weeks 1988). Additionally, all actions on the sampling units are maintained within the system. These actions include selection for a survey, updates made to the information contained on the universe for a record, and reporting results. All of this information is available through extracts from the universe database.

5. PREPARATION / LOG-IN OF SURVEY MATERIALS

Once a sample panel is recruited for a particular study, several DSS functions are used in order to manage the sample. These functions are referred to as send materials and log reporting/gift processing.

The send materials function is used to label the materials that are sent to panel members. These materials consist of collection forms, thank-you letters, and compensation packets. Labels can also be printed on an ad-hoc basis if additional items need to be sent. For selected studies, the DSS will generate a sample file that is used to create collection forms with unit-specific information.

The log reporting function is used to record response to mail surveys and the quality of data sent. The information can be recorded directly into the system via on-line screens or input into a file that is processed via a batch program at the end of the reporting period. These data serve to create files for use in quality control of the coding operation, and to identify sample units which should be deleted from the sample due to poor reporting quality.

The gift processing function is used to compensate sample units members for supplying data. The first part of the gift processing function is recording the compensation that is agreed to by the respondent. At the end of each reporting period, the compensation earned by a respondent is determined. The compensation is processed and then sent to the respondent.

6. PREPARATION ON DATA SETS

The DSS allows data sets to be prepared for use in later stages of survey processing, data tabulation, and data quality analysis. Files are generated based upon sample selected and sample reporting, which are used for data entry control. Data collected during on-line interviews are put into data sets for data tabulations. Finally, information entered into the system during log-in about data quality is put into data sets used for sample maintenance and data investigations.

7. UNIVERSE MAINTENANCE

Through contacts with the sample units and through outside updates to the universe files, information is obtained which allows IMS America to update the universe files maintained within the DSS. Updates are made both on-line and in a batch mode within the DSS. On-line updates typically occur during recruitment, when an interviewer verifies the demographic information for a sample unit. Batch updates are generated through scheduled maintenance to the universe files that serve as input to the DSS. All updates are made so as to preserve the integrity of the ongoing sample panels and the universe file residing on the DSS.

DSS ADVANTAGES

The Data Supplier System provides IMS America with an integrated universe definition, sample design, and sample selection process that is directly linked with the sample recruiting and on-line data collection system. The DSS can accommodate the multiple universes and surveys which IMS America uses and conducts. The DSS allows expansion of universes and surveys under an umbrella system, reducing new survey development time. Finally, the DSS provides a

single database with all universe and sample history information.

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SURVEYS OF SOCIAL NON-PROFIT ORGANIZATIONS: A CASE STUDY OF TRANSITION HOMES

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INTRODUCTION

An increased awareness of serious social problems plaguing our society has, in the last two decades, led to the proliferation of a class of establishments which, to date, has received little attention from national statistical agencies. These can be referred to as social non-profit organizations. The term "social non-profit" refers to social establishments whose funding is insecure and/or function with minimal human and financial resources. These establishments can be characterized as being community based, often grass-roots, and relying heavily on volunteer support and donations. They include such organizations as food banks, shelters for the homeless, and transition homes. The latter primarily provide women victims of family violence, and their dependents, with both a safe haven from the abuse and relevant services. The increasing number of social non-profit establishments has motivated policy makers to improve their knowledge of how these organizations function and the nature of the clientele they serve.

This paper uses the Transition Home Survey (THS), recently developed at Statistics Canada, as a case study to illustrate the importance of a consultative process when planning a survey of social non-profit organizations. This is done by highlighting compromises to the initial design of the THS which resulted from consultations with Federal and Provincial/Territorial government agencies, Transition Home Associations, and representatives of individual shelters.

The Commentary section reflects on the challenges which remain in overcoming the limitations of the current THS and also presents ideas for developing a more conducive environment for the collection of data from social non-profit organizations in the future.

THE TRANSITION HOME SURVEY: ITS DRIVING FORCE

Due to the uniquely private nature of family violence, statistics on its prevalence are generally difficult to obtain and are admittedly underestimated. Notwithstanding this, it is estimated that no less than one in ten Canadian women is victim of abuse by her partner and that family violence accounts for over 60 percent of female homicides in Canada (Government of Canada, 1992). In terms of physical injury, wife assault occurs more often in Canada and the United States than all incidents of muggings, rape, and car accidents combined (Myers Avis, 1992). The recent proliferation of transition homes is evident when one considers that of the approximately 390 in operation today in Canada, about 80% of them have opened since 1980 (Statistics Canada, 1993).

Data from a recent preliminary survey of transition homes in Canada only begins to reflect the scope of family violence. In 1992, 273 responding transition homes reported 78,429 admissions. This represents an average of 287 admissions per year, per transition home (Statistics Canada, 1993).

In response to growing concern, in 1991, the Canadian government approved funds for a four year renewal of the Family Violence Initiative (FVI), the objective of which is to improve and expand current efforts in reducing family violence in Canada. Within a coordinated interdepartmental approach, an action plan was devised targetting many fronts, from prevention and intervention to information collection and dissemination. The information requirements identified as priorities were of three general types; 1) the services currently available to victims and perpetrators of domestic violence, 2) the nature of the violence which is occurring and 3) the extent of the violence (Statistics Canada, 1990).

It was acknowledged that the sources of data concerning transition homes in Canada were generally

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inconsistent and inadequate. It was the absence of useful national statistics concerning transition homes that motivated the development of the THS.

In designing the THS, the intent was (1) to collect detailed information concerning services available in every transition home in Canada, using a year end aggregate questionnaire; and (2) to collect client-based information on the nature of the violence occurring, via standardized, aggregate client admission forms. This was viewed as the initial design.

It should be noted that a separate Statistics Canada survey, the Violence Against Women Survey, also addresses the issue of the nature of the violence committed but in addition looks at the extent of violence.

CONSULTATIONS AND THEIR IMPACT

A project team was organized to investigate the feasibility of implementing the THS based on its initial design. Given the nature of the establishments being surveyed, and the clientele being studied, the project team felt that a process of consultations with key stakeholders was warranted and would provide many benefits.

First Round of Consultations

At the first of two rounds of consultations, the project team met with representatives from Federal and Provincial/Territorial government agencies and Transition Home Associations. The main objectives of the first consultations concerned the following:

1. *Ongoing Collection Methodology*: Determine the types of data that Provincial/Territorial government agencies and/or Transition Home Associations were already collecting or planning to collect;

2. *Frame Creation*: Identify transition homes that may not be included in federal inventories; and

3. *Practicality*: Assess reactions to the proposed design.

This first round of consultations was to set the foundation for the development of a prototype strategy which would be discussed at the second round of consultations (Statistics Canada, 1992).

Ongoing Collection Method

These first consultations confirmed that ongoing collection methods, content, and definitions were not standardized across the country. It was discovered that of Canada's ten provinces and two territories, only two provincial Transition Home Associations were using a provincial standard client admission form for the transition homes in their respective provinces. Of these, only one provided copies of these forms to its respective provincial government. All other Provincial/Territorial governments received non-standardized monthly or annual accounts from transition homes in their jurisdictions. Hence, of the data sought for the THS, only partial year end aggregate data could be made available from data already collected. The nature of the client-based data elements being collected within and amongst provinces were equally inconsistent. It appeared that any attempt to gather, capture and standardize data from existing admission forms would be difficult, while the quality of the data would remain questionable.

Frame Creation

A preliminary frame was developed from separate inventories of residential facilities and transition homes, maintained by Statistics Canada and Health and Welfare Canada. Unduplicating these two files provided a list of 294 shelters. The consultative process identified an additional 119 shelters, a 40% increase.

The use of consultations as a means of improving frame coverage is not a unique strategy; however, in the case of the THS, it may have been the only means of building a virtually complete frame, given the desire of these agencies to retain some anonymity (from fear of abusers tracking down their victims). The type of networking developed amongst Transition Home Associations can only be expected when the survey frame is as small as it was in this case.

Notwithstanding these efforts to develop a complete frame, there remains the chance that a number of transition homes have been involuntarily omitted from our frame. This may have happened as a result of the existence of these facilities not being known to either Transition Home Associations, and/or Provincial/Territorial government agencies. While it is believed that the number of transition homes which may fall under this category is minimal, it is impossible to estimate its impact on frame quality.

Practicality

The reaction of representatives of Transition Home Associations to the proposed design focussed primarily on response burden for both administrators and clients. The scope of the data elements being considered for collection by the THS was much broader than that of any of the client admission forms used. Hence, additional and excessive demands would be placed on respondents.

While it was generally agreed that a national aggregate survey of services and clients would best accomodate the needs of Federal and Provincial/ Territorial groups, the concerns of response burden and limited resources resulted in the decision that a one-day snapshot type survey was more feasible. Thus, it was agreed that transition homes would be asked to respond to a questionnaire on 31 March of the reference year. It would request aggregate data concerning the activities of the transition home during the previous twelve months, and a profile of the residents in the shelter on 31 March.

In an attempt to reduce the information gap imposed by these compromises, the Canada Mortgage and Housing Corporation (CMHC) would collect, from a subset of homes in the universe, client-level data from a 20 percent sample of all clients in these homes during the year. The transition homes surveyed by CMHC were those funded by the Corporation under its FVI Project Haven program.

Second Round of Consultations

Based on the first round of consultations, and the decisions that ensued, an interim survey was developed which made use of a short version questionnaire. It was forwarded to all transition homes, to collect preliminary data on their population and services, and pre-test the receivability of such a survey. The outcome of this exercise, and the consultations which drove it, led to the design of a long version THS questionnaire, which was to be the focus of discussion during the second round of consultations.

Since the THS is the first survey which is specific to transition homes in Canada, there was a need to have the questionnaire as comprehensive as possible, enabling us to collect baseline data on specific areas of interest (services available, total admissions, resources, staffing, etc.). However, reduced response burden remained an overriding factor, thus making it imperative to have a user-friendly collection vehicle, in order to maximize the response rate.

The objective of the second round of consultations was to get feedback on the draft long version questionnaire and instructions. Issues raised during this round of consultations related to the following points:

1. *Data Availability:* Determine whether the necessary resources and information are available at the time of collection;

2. *Nature of Data Sought:* Get feedback on the sensitivity of particular questions; and

3. *User friendliness:* Look for suggestions as to how the collection vehicle might be simplified to maximize response rates.

Data Availability

Transition Home Associations made it clear during the consultations that respondents had neither the resources, time nor accessibility to report on an exhaustive set of data elements. Accordingly, the content of the survey had to be considerably restricted to acknowledge the nature of the establishment surveyed. Data elements to be collected were restricted to those readily available to respondents. Hence, the majority of data was collected for only one day of the year, namely March 31, with limited aggregate data collected on annual admissions, financial resources, and staffing. This data collection could then be supplemented with that collected by CMHC.

Nature of Data Sought

Collection of data which may stereotype the resident was frowned upon by some of those consulted. Additionally, the concern of the Associations was that asking intrusive questions may undermine the anonymity that these women seek, and therefore have a detrimental impact on their usage of the transition home. Consequently, questions concerning Length of Abuse, Ethnic Background, Occupational Profile, Primary Source of Income and Educational Profile were dropped from the questionnaire.

User Friendliness

In keeping with the need to reduce response burden and strive towards maximum user friendliness, the questionnaire had to be designed in a fashion such that the time to complete it would be minimized as much as possible. This included designing the majority of questions with pre-defined check-off categories or yes/no responses. Respondents were also provided, in some cases, with the choice of providing estimated percentages of total numeric data instead of exact figures. Similarly, respondents were provided with flexibility as to the reporting period for the data collected, with the following two restrictions: the aggregate data provided could include any twelve month period as long as this period was clearly defined and maintained throughout the questionnaire; and the one-day snapshot data had to be collected for March 31.

It is clear that the consultative process had caused the scope of the THS to evolve. Though the extent of the current survey may be less ambituous than originally proposed, it better reflects the reality of transition homes. This, in turn, translates into a higher likelihood of success for the survey. One can assume that other surveys of social non-profit organizations could face similar compromises.

COMMENTARY

Though the THS has been designed to strike a balance between information needs and the constraints imposed by the nature of the establishments being surveyed and their clientele, there is general agreement that these information needs cannot best be met via a questionnaire administered once a year. It is clear that improvements are necessary.

There is a need to collect national, micro-level data of both services and clients of these establishments, at the Provincial/Territorial level. This is already being done in a number of provinces/territories. However, the data collection methods used, as well as the data elements collected, are not uniform from province to province, preventing comparative analysis. Consequently, national data remains unavailable.

As a means of achieving this uniformity, standardized admission and separation forms are required across the country. This will inevitably entail further consultations with representatives of the transition homes themselves who are in the best position to assess the nature of information that is available and reasonable to collect. These forms would be comprised of a minimum set of uniform data elements which provinces/territories and Transition Home Associations need for their own administrative purposes, as well as elements which would be collected solely for statistical purposes. It is reasonable to assume that the data for administrative purposes would be collected from every client while information on only a sample of clients would be needed for the remaining elements.

These forms could be sent to central Provincial / Territorial registries on a monthly basis, to be captured. A synthesis of this micro-level data could then be done at year end to produce a national statistical portrait.

While ideal, this exercise would undoubtedly require further resources which may not be available at the moment. Until such resources are made available, our current methods could be extended to collect data from transition homes on an intermittent basis. This would enable us to capture one-day snapshots at different times throughout the year, thus minimizing external factors such as seasonal fluctuations. This would entail using two questionnaires instead of one. The first one would collect data for the one-day client-based snapshots; the second one would only collect establishment-based data currently contained in the THS at year-end.

There are a several things which national statistical agencies can do to prepare for future surveys of non-profit organizations. The non-profit organizations must first recognize the value of a series of provincial and national statistics. Statistical agencies should clearly illustrate to non-profit organizations the benefits of standardized data collection. Their statistical expertise should also be made available to these organizations, to aid in the process of developing the standards required. Several Provinces/Territories have taken the lead by standardizing admission and separation forms for transition homes in their respective regions, and developing collection/capture systems to automate data access. Reaching consensus on national data collection standards will be facilitated if statistical agencies act now to take the lead rather than waiting until more Provinces/Territories have invested in their own, unique automated systems.

In conclusion, this and other surveys of social non-profit organizations will need to respect the nature of the establishments surveyed. This means that minimizing response burden will have to remain the overriding factor, imposing inevitable compromises on data collection efforts, until such a time that these non-profit social agencies gain the ranks of other well established, well resourced, social agencies. This may only be achievable if all Provinces/Territories assume responsibility for transition homes, and their administration, and make the services they dispense a higher priority on their social agenda.

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