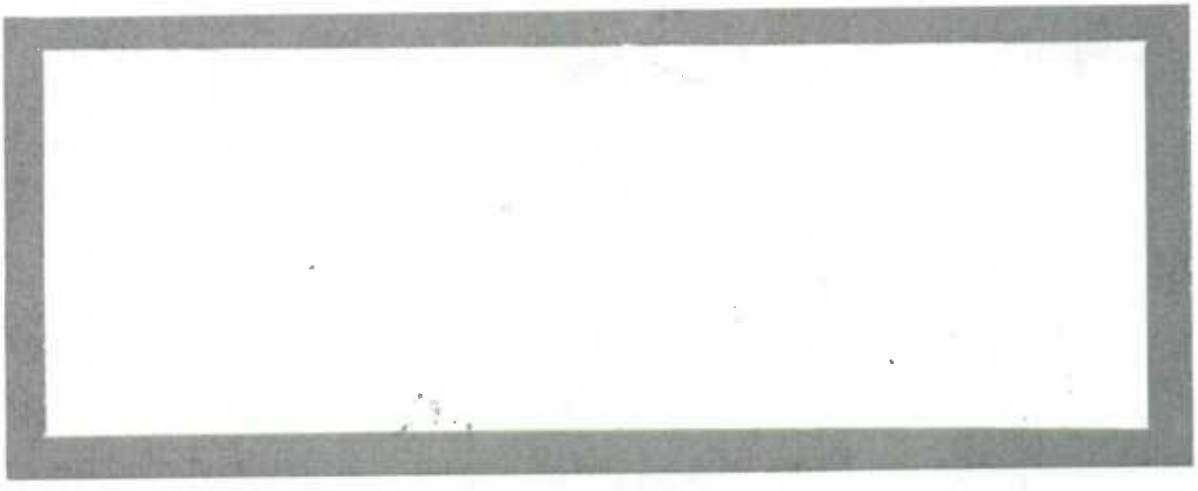

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MÉTHODOLOGIE

AN EVALUATION OF NON-RESPONSE IN THE SURVEY OF SPECIAL CARE FACILITIES WITH RECOMMENDATIONS FOR ITS REDUCTION

by

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Abstract

The Survey of Special Care Facilities has a response rate of about 45%, accounting for about 61% of beds in in-scope facilities. This report presents an analysis of the non-response, followed by a discussion of aspects of the survey having an influence on the response rate. Means by which the response rate might be improved are also discussed.

Résumé

L'enquête sur les établissements de soins spéciaux a un taux de réponse de 45%, donnant 61% des lits des établissements de la population cible. Ce rapport donne une analyse de la non-réponse, suivi par une discussion des aspects de l'enquête ayant une influence sur le taux de réponse. Les méthodes par lesquelles le taux de réponse pourrait être amélioré sont discutées.

1. INTRODUCTION

The Survey of Special Care Facilities (SSCF) has a response rate of about 45%, accounting for about 61% of beds in in-scope facilities. When the province of Quebec is excluded, for which administrative data is provided for all facilities, these percentages go down to 41% and 56%, respectively. This report presents an analysis of the non-response followed by a discussion of aspects of the survey having an influence on the response rate. Means by which the response rate might be improved are also discussed.

The SSCF target population is homes for special care under the Canada Assistance Plan plus facilities providing an element of care that are licensed, approved or funded by a province. Facilities with three or fewer beds are excluded. These facilities can be either public or private. According to the provincial program code, each facility has one of the following principal characteristics:

- aged
- physically handicapped
- mentally retarded
- mentally handicapped
- emotionally disturbed children
- alcohol/drug problems
- delinquents
- transients
- others (includes home for unwed mothers)

2. Non-Response Analysis

The analysis presented in this section is based mainly upon data from 1981/82 although data from 1979/80 and 1980/81 are also used. Facilities in Quebec are excluded from this analysis since provincial administrative data is used for all of those facilities.

For reference, tables 1, 2 and 3 give a description of the 1982 population of Special Care Facilities in terms of principal characteristic, type (public or private) and size (rated bed capacity).

Overall annual response rates in terms of facilities and beds accounted for by responding facilities were:

Year	Number of Facilities	Response Rate (%)	Percent of Beds Accounted For
1979/80	4015	41.2	55.6
1980/81	4346	40.5	57.7
1981/82	4230	40.5	56.0

An examination of table 4 provides an explanation for the discrepancy between the response rate and the percentage of beds accounted for. In particular, the response rate increases significantly with increasing rated bed capacity category. Table 5 shows that for all rated bed capacity categories the response rate for private facilities is lower than that for public facilities. After considering the population of facilities as described in tables 1, 2 and 3, it seems likely that the above two factors can explain most of the variation in response rate by principal characteristics.

The response rate for public facilities is likely higher than that for private facilities because of greater legal regulatory requirements resulting in better record-keeping and an improved ability to respond. In addition, for some public institutions, in some provinces data similar or identical to that required by the SSCF is collected by the provincial authority and subsequently provided to Statistics Canada. This also results in improved response rates for public institutions.

Ability to respond is probably also closely related to facility size. In smaller facilities, record keeping practices are often not as good as in larger facilities. Thus the data required by the SSCF may often not be available. Even if it is available, staff at small facilities are less likely to be able to find the time to complete a voluntary survey.

Table 6 illustrates response rates by province. Of most interest in this table is Manitoba with a response rate of 21%. In previous years, the response rate in Manitoba had been about 50%. The drop is accounted for by about 100 facilities, mostly for the aged, which are surveyed by provincial officials. However, starting with the 1981/82 reference year these officials have not participated in the SSCF.

Tables 7 and 8 show the percentages of beds accounted for by respondents. These percentages follow the same pattern as the response rates. Note that percentages of beds accounted for are consistently higher than corresponding response rates.

In table 9, it is notable that the response rate is particularly poor for births and for facilities that had not responded in the previous year. Table 10 indicates that, for facilities alive in all of the three years considered in this report, the group of facilities never responding (39%) was much larger than the group which always responded (28%).

Overall, both in terms of response rate and percent of beds accounted for by respondents, the response is low for almost all combinations of type of facility and principal characteristic.

3. Data Collection Method

The standard data collection method used in the SSCF consists of an initial mail out in late March with a mail follow-up in June for non-respondents. Data is requested for the twelve months ending March 31. The survey is voluntary.

The three month time span between initial mail out and follow-up is too long; it becomes too easy for the respondent to ignore the survey and may even give the impression that it is not important. It is recommended that this time span be substantially reduced by delaying the initial mail out and/or by advancing the follow-up. A second follow-up may also be useful for non-respondents after the first follow-up.

It is recommended that telephone follow-up be considered for the SSCF. This technique was very successful for the Transportation Survey for Special Care Facilities (TSSCF), a one-time survey conducted in May 1984. For the TSSCF, the questionnaire was simple enough to be completed over the telephone. Although this would not likely be possible with the more complex SSCF, telephone follow-up might still be suitable as a reminder procedure. A complicating factor for telephoning is the fact that the SSCF form is often completed by a bookkeeper or auditor off the facility premises and therefore having a different telephone number.

It is recommended that the status of the SSCF as a voluntary survey be reconsidered. This might be done in conjunction with the clarification of Health and Welfare Canada's data

requirements pursuant to the Canada Health Act. By making the survey mandatory and including "Authority Statistics Act, Statutes of Canada, 1970-72, Chapter 15" on the questionnaire the response rate might be improved.

Currently data collection is done from head office in Ottawa. It is often found that cooperation by respondents is improved when data collection is done from the regional offices. It is recommended that data collection administered from the regional offices be considered. This would be particularly important if telephone follow-up were to be implemented. In addition, arrangements would have to be made for data capture (including quality control and on-line edits) and for transmission to head office.

It should be noted here that there is a small number of institutions whose administration is closely linked with that of hospitals. Data for these facilities is taken from Health Division's Annual Return of Hospitals in order to avoid duplication in reporting.

4. Provincial Co-operation

This section briefly documents arrangements by which SSCF data is collected on our behalf by provincial officials in some provinces. The response rates for these segments of the target population are superior to those obtained by the usual data collection method (see Table 11). However, this seems to be, in part, due to continued co-operation by individuals (the provincial officials) who were involved in the initial development of the SSCF rather than some more formal data sharing kind of arrangement.

In any redesign or modification of the SSCF, it is likely that provincial departments responsible for Special Care Facilities would be consulted with regard to their data requirements from the SSCF. At such meetings, an attempt should be made to revitalize the cooperation between Statistics Canada and the provincial authorities, especially with regard to data collection. (It is notable that the co-operation of all provinces in frame maintenance for the SSCF is excellent). Even something as simple as a letter to in-scope facilities encouraging their response and signed by the provincial Minister of Health (say) could be helpful.

For "nursing homes" in New Brunswick, SSCF questionnaires are distributed by a provincial official. Respondents are asked to return two copies, one to the province and one to Statistics Canada.

In Ontario, data collection for Provincially Supported Mental Retardation Facilities is conducted on our behalf by a provincial official.

Until the 1980-81 reference year, data for Personal Care Homes in Manitoba was provided to Statistics Canada by the provincial authority. However, since that time, the provincial authority is not participating in the SSCF and the data for these institutions (there are about 100 of them) are not being provided to Statistics Canada.

The Alberta Hospital Services commission conducts a mandatory survey of Contract Nursing Homes under its jurisdiction. Data from this survey, which includes all variables of interest for the SSCF, is supplied to Statistics Canada on photocopies of their questionnaires.

In British Columbia, there are about 250 institutions, mainly homes for the aged, that are now required to provide some information to the provincial government. It is hoped that arrangements can be made for Statistics Canada to share this data.

5. The Questionnaire

It is recommended that the questionnaire design be revised and the questionnaire content undergo a thorough review. The latter should be done by consulting with principal data users, relevant provincial authorities and federal groups, and perhaps even some representatives of respondents (especially smaller institutions). The objective would be to develop questionnaire(s) that ask for all required data, are easy to complete for all respondents (especially smaller institutions) and are visually more appealing (less likely to discourage response merely by the appearance of the questionnaire). Some of the factors to be considered are briefly discussed below.

The questionnaire contains thirteen sections of varying length, complexity and importance. (A copy of the questionnaire is attached as appendix 1). It seems to impose a significant response burden, especially for small institutions. Can the questionnaire be simplified for these respondents? Perhaps a separate questionnaire should be developed for small institutions. (How should small be defined?) Such a questionnaire might ask only for some of the totals from the current questionnaire. It should be considered whether each of the thirteen sections is equally important for all principal characteristics. If not, can it be accounted for while keeping the questionnaire simple?

At the tops of pages 3 and 4 (personnel and expenses) of the current questionnaire, the phrase "If breakdown is unavailable in the categories requested, give totals only" had been added. Although this was certainly designed to ease the response burden for small institutions, it has also had the unfortunate effect of reducing the quality of response from some previously excellent respondents. Thus, a different strategy such as a separate questionnaire might be more appropriate. It is interesting that previously there was a separate questionnaire for facilities with 10 beds or less and providing type I care or less. However, it was eliminated since the larger questionnaire included everything on the small one, and provided a context.

Some things that could be done to improve the questionnaire design might include the following:

- Improved use of colour. The questionnaire is currently entirely pink. A white border around each page and white data cells would help.

- Instead of putting the covering letter on a separate page it could be put on the first page of the questionnaire along with the identifying information. General instructions might be embedded in the letter.

- The questionnaire would have a more "official" appearance if it was done in booklet format rather than stapled in the top left corner.

- Speard out the questionnaire onto one or two more pages. Currently, some of the pages have a rather crowded appearance that could be confusing.

- Other simplifying changes to the layout of each page.

6. The Respondents

With regard to the ability of institutions to answer the SSCF questionnaire, it is known that some institutions, both public and private, are affiliated into groups with financial information held by an umbrella organization. Two examples are the Metropolitan Toronto Childrens' Aid Society and the Metropolitan Toronto Association for the Mentally Retarded. A single questionnaire is completed by each of these organizations. In each case the organization provides information for all its facilities (about 25 in each case). Thus

Statistics Canada is able to obtain data that might otherwise be much more difficult to get directly from the individual facilities. (A side-effect of this methodology is the inclusion of some facilities with less than four beds). It is recommended to make increased use of this sort of arrangment with respondents.

Steps involved in the development of this would include, at a minimum, identifying and profiling such organizations. This could be undertaken with the assistance of Business Register Division and the provincial governments who supplied the frame. A suitable contact person at the organization's head office would have to be identified. After this, the feasibility and arrangements for this kind of reporting would be discussed and finalized.

A potential constraint on this kind of reporting would be any requirements for data for smaller areas. This group reporting methodology could then not be used for organizations whose area of coverage crossed the boundaries of such small areas.

7. Other Factors

The Sub-Committee on Health Information (a secretariat located in Policy Planning and Information Branch in Health and Welfare Canada) may in upcoming years be looking at health information at the level of special care facilities. This may increase provincial interest in assisting federal collection.

At present, preliminary discussions have been started with various provinces to discuss using administrative data. For some programs in Ontario, Manitoba and British Columbia, virtually 100% of the information required for the SSCF is now being collected by the provincial administration.

The endorsement of the Advisory Committee on Institutional and Medical Services (parent of the Sub-Committee on Health Information) for closer co-operation in reducing the response burden of facilities under their administration should be considered.

Currently the SSCF is a census of in-scope facilities. It is recommended that the use of sampling methods be considered for this survey. By using sampling methods, some resources could be re-allocated to a more intensive follow-up procedure for those facilities included in the sample, resulting in an improved response rate. If the improvement in response rate is sufficient and the quality of responses does not deteriorate, a net benefit in terms of data quality would result.

The target population presently includes facilities with as few as four beds. This is the "tip of an iceberg" of the total population of Special Care Facilities. Would smaller facilities also be of interest for the SSCF? If so then a sampling methodology could also be used for them.

Not withstanding the above paragraph the low response rates for small facilities suggest that it might not be worthwhile to be surveying them. Certainly, it is necessary to develop a survey methodology that can be expected to yield a substantial improvement in the SSCF response rate. This is especially true for the smallest facilities. If it cannot be done, then excluding the smallest facilities from the target population should be seriously considered.

8. Summary of Recommendations

The analysis of the SSCF response rate indicates that it is low for almost all segments of the target population. Thus, estimates produced from the survey data are likely to have high variances. Since the non-response is differentially distributed according to rated bed capacity and facility type, estimates may also have significant biases. (It may be worthwhile to try to impute for non-respondents to reconcile data to the original frame.) Since the non-response leading to this is so significant and since the potential solutions cover many aspects of the methodology, it is recommended that a redesign of the SSCF be undertaken.

This paper has reviewed some of the more evident problem areas. The detailed recommendations made are listed below:

1. Reduce the time span between initial mail-out and the first follow-up by delaying the initial mail-out and/or by advancing the follow-up.

2. Consider use of the telephone for follow-up.

3. Make the SSCF mandatory by putting it under the authority of the Statistics Act.

4. Consider administration of the data collection from the regional offices.

5. Solicit the improved co-operation of provincial administrations. Their active support of the SSCF by supplying Statistics Canada with appropriate administrative data or by assisting in the data collection process would be helpful.

6. Redesign the questionnaire, especially to improve the ease of completion for all respondents and to improve the appearance of the questionnaire. This could include developing separate questionnaires for large and small facilities.

7. Thoroughly review the questionnaire content.

8. Make increased use of head office reporting arrangements such as those currently in place with the Metropolitan Toronto Association for the Mentally Retarded and the Metropolitan Toronto Childrens' Aid Society.

9. Consider using sampling methods instead of conducting a census.

10. Consider reducing the target population to exclude the smallest facilities.

TABLE 1
SPECIAL CARE FACILITIES POPULATION, 1982
PRINCIPAL CHARACTERISTIC BY RATED BED CAPACITY

PRINCIPAL CHARACTERISTIC	RATED BED CAPACITY										ALL	
	4-9		10-19		20-49		50-99		>99			
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
ALCOHOL/DRUG	24	11	102	45	82	36	13	6	7	3	228	100
AGED	146	9	194	12	460	28	487	29	374	23	1661	100
CHILDREN	360	71	77	15	48	9	14	3	8	2	507	100
MNT_RETARDED	420	61	149	21	71	10	14	2	40	6	694	100
PH_HANDICAPPED	24	18	24	18	38	29	31	24	14	11	131	100
MNT_HANDICAPPED	312	46	164	24	129	19	35	5	36	5	676	100
DELINQUENTS	42	49	24	28	13	15	5	6	1	1	85	100
UNWED MOTHERS	3	43	3	43	1	14	.	.	.	.	7	100
TRANSIENTS	6	14	7	16	14	33	10	23	6	14	43	100
OTHER	82	41	68	34	43	22	4	2	1	1	198	100
ALL	1419	34	812	19	899	21	613	14	487	12	4230	100

TABLE 2
SPECIAL CARE FACILITIES POPULATION, 1982
PRINCIPAL CHARACTERISTIC BY TYPE OF FACILITY

PRINCIPAL CHARACTERISTIC	TYPE OF FACILITY				ALL	
	PUBLIC		PRIVATE			
	N	(%)	N	(%)	N	(%)
ALCOHOL/DRUG	205	90	23	10	228	100
AGED	814	49	847	51	1661	100
CHILDREN	307	61	200	39	507	100
MNT_RETARDED	492	71	202	29	694	100
PH_HANDICAPPED	54	41	77	59	131	100
MNT_HANDICAPPED	176	26	500	74	676	100
DELINQUENTS	66	78	19	22	85	100
UNWED MOTHERS	7	100	.	.	7	100
TRANSIENTS	39	91	4	9	43	100
OTHER	130	66	68	34	198	100
ALL	2290	54	1940	46	4230	100

TABLE 3
SPECIAL CARE FACILITIES POPULATION, 1982
TYPE OF FACILITY BY RATED BED CAPACITY

	RATED BED CAPACITY											
	4-9		10-19		20-49		50-99		>99		ALL	
	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)	N	(%)
TYPE OF FACILITY												
PUBLIC	705	31	389	17	487	21	382	17	327	14	2290	100
PRIVATE	714	37	423	22	412	21	231	12	160	8	1940	100
ALL	1419	34	812	19	899	21	613	14	487	12	4230	100

TABLE 4
SPECIAL CARE FACILITIES RESPONSE RATES, 1982
PRINCIPAL CHARACTERISTIC BY RATED BED CAPACITY

PRINCIPAL CHARACTERISTIC	RATED BED CAPACITY					
	4-9	10-19	20-49	50-99	>99	ALL
	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)
ALCOHOL/DRUG	29	50	46	46	43	46
AGED	22	23	41	54	60	45
CHILDREN	21	30	48	57	50	26
MNT_RETARDED	42	55	54	29	78	48
PH_HANDICAPPED	29	33	39	29	36	34
MNT_HANDICAPPED	28	28	23	46	72	30
DELINQUENTS	55	50	54	80	100	55
UNWED MOTHERS	0	0	0	.	.	0
TRANSIENTS	0	29	36	30	67	33
OTHER	26	41	65	50	100	40
ALL	30	36	41	51	62	40

TABLE 5
SPECIAL CARE FACILITIES RESPONSE RATES, 1982
TYPE OF FACILITY BY RATED BED CAPACITY

	RATED BED CAPACITY					
	4-9	10-19	20-49	50-99	>99	ALL
	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)	RESPONSE RATE(%)
TYPE OF FACILITY						
PUBLIC	37	49	55	58	71	51
PRIVATE	24	25	26	41	43	28
ALL	30	36	41	51	62	40

TABLE 6
SPECIAL CARE FACILITIES, 1982
POPULATION AND RESPONSE RATE BY PROVINCE

	N	RESPONSE RATE(%)
PROVINCE		
NEWFOUNDLAND	126	19
PRINCE EDWARD IS	52	48
NOVA SCOTIA	222	45
NEW BRUNSWICK	259	40
ONTARIO	1710	43
MANITOBA	319	21
SASKATCHEWAN	243	56
ALBERTA	544	50
BRITISH COLUMBIA	728	34
YUKON	9	11
NW TERRITORIES	18	22
ALL	4230	40

TABLE 7
SPECIAL CARE FACILITIES, 1982
PERCENT OF BEDS ACCOUNTED FOR BY RESPONDENTS
PRINCIPAL CHARACTERISTIC BY RATED BED CAPACITY

PRINCIPAL CHARACTERISTIC	RATED BED CAPACITY 4-9 PERCENT OF BEDS	10-19 PERCENT OF BEDS	20-49 PERCENT OF BEDS	50-99 PERCENT OF BEDS	>99 PERCENT OF BEDS	ALL PERCENT OF BEDS
ALCOHOL/DRUG	29	51	50	51	38	47
AGED	20	24	43	55	60	55
CHILDREN	22	31	47	60	54	40
MNT_RETARDED	44	56	54	29	87	72
PH_HANDICAPPED	30	39	39	27	33	32
MNT_HANDICAPPED	29	28	23	46	82	59
DELINQUENTS	52	47	52	81	100	63
UNWED MOTHERS	0	0	0	.	.	0
TRANSIENTS	0	31	37	31	73	53
OTHER	27	42	64	39	100	50
ALL	31	37	43	52	66	56

TABLE 8
SPECIAL CARE FACILITIES, 1982
PERCENT OF BEDS ACCOUNTED FOR BY RESPONDENTS
TYPE OF FACILITY BY RATED BED CAPACITY

	RATED BED CAPACITY					
	4-9	10-19	20-49	50-99	>99	ALL
	PERCENT OF BEDS	PERCENT OF BEDS	PERCENT OF BEDS	PERCENT OF BEDS	PERCENT OF BEDS	PERCENT OF BEDS
TYPE OF FACILITY						
PUBLIC	38	50	56	59	75	67
PRIVATE	24	25	26	41	42	36
ALL	31	37	43	52	66	56

TABLE 9

RESPONSE RATES FOR 1980/81 AND 1981/82

	Previous Year Respondents		Previous Year Non-Respondents		Births	
Year	N	Response Rate (%)	N	Response Rate (%)	N	Response Rate (%)
1980/81	1616	79	2157	21	573	7
1981/82	1674	69	1851	26	515	13

TABLE 10

PATTERNS OF RESPONSE BY FACILITIES ALIVE IN FISCAL YEARS 1979/80 TO 1981/82

Years in which Response Occurred	N	Percent
79/80, 80/81, 81/82	901	28
79/80, 80/81	318	10
79/80, 81/82	124	4
80/81, 81/82	234	7
79/80	188	6
80/81	186	6
81/82	172	5
None	1,111	34
Total	**3,234**	**100**

TABLE 11
RESPONSE RATES FOR INSTITUTIONS SURVEYED BY PROVINCIAL AUTHORITIES, 1982

Province	N	Response Rate (%)
New Brunswick	59	73
Ontario	31	87
Alberta	77	96
All	167	86