THE 1986 INVENTORY OF LONG-TERM CARE PLACES AS A SAMPLING FRAME

D.E.B. Potter, Steven B. Cohen and Curt D. Mueller, NCHSR
D.E.B. Potter, National Center for Health Services Research and Health Care Technology Assessment, Parklawn Building, Room 18A-55, 5600 Fishers Lane, Rockville, Maryland 20857

Introduction and Background

The 1986 Inventory of Long-Term Care Places (ILTCP) is the most up-to-date, comprehensive listing of nursing and personal care homes, and facilities for the mentally retarded in the 50 states and the District of Columbia. It was created to serve as the sampling frame for the Institutionalized Population Component of the 1987 National Medical Expenditure Survey of the National Center for Health Services Research and Health Care Technology Assessment (NCHSR). (See Appendix for key to abbreviations.)

NMES will provide national estimates of the use of health services, health care expenditures, private and public sources of payment, and health insurance coverage for the year 1987. A major portion of the long-term care data for NMES will be obtained through the IPC, a person-based survey conducted in a nationally representative sample of nursing and personal care homes, and facilities for the mentally retarded.

The targeted IPC universe is all persons who spent one or more nights in a nursing or personal care home, or a facility for the mentally retarded, during 1987. The IPC sample was designed to yield unbiased national and regional estimates at the facility level and for the overall institutional user population, according to type of institution: nursing and personal care homes, and; facilities for the mentally retarded. Designed as a stratified, three-stage probability design, individual facilities were selected in the first two stages. Current residents (residents on January 1, 1987) and admissions (persons admitted between January 1 and December 31, 1987), are sampled, within sampled and cooperating facilities, at the third stage. Three explicit sampling strata were used to select the facility sample: nursing and personal care homes; facilities certified under Medicaid as Intermediate Care Facilities for the Mentally Retarded (ICF-MR) with 3-15 beds; and other facilities for the mentally retarded. Implicit stratification variables were bed size, number of admissions, certification status, type of ownership, and Census region. Within strata, facilities were selected with probability proportional to size (pps). The measure of size was calculated as the larger of two percentages: the percentage of current residents that fell into each facility, or the percentage of new admissions that fell into each facility. Persons within facilities were selected at rates that were inversely related to the selection probability of the facilities (Cohen, Flyer, and Potter, 1987).

Thus, the ILTCP serves a fourfold purpose with respect to the IPC: it depicts the universe of nursing and personal care homes, and facilities for the mentally retarded; it provides data for eligibility; it provides data for the creation of the measure of size variable; and it permits stratification of the sampling frame.

This report describes the 1986 Inventory of Long-Term Care Places and its use as a sampling frame for the Institutionalized Population Component of the 1987 National Medical Expenditure Survey.

The ILTCP

Creation of the Inventory

Work on the Inventory was co-sponsored by the National Center for Health Services Research and Health Care Technology Assessment (NCHSR), the National Center for Health Statistics (NCHS), and the Health Care Financing Administration (HCFA). Planning for the Inventory began in late 1984 with planning for the Institutional Population Component.

The first step in construction of the Inventory was the compilation of a complete list of names and mailing addresses of nursing and personal care homes, and homes for the mentally retarded. These lists were compiled by the Division of Health Care Statistics of NCHS, and served as the ILTCP mailing lists for the initial wave of mail-out questionnaires. These lists define the scope of the Inventory. The following definitions were adopted:

> Nursing and related care homes were defined as facilities licensed or officially recognized by a state, with three or more beds, and providing nursing care or some medical care or personal care assistance to residents. Personal care refers to help with at least one of the following: bathing, dressing, correspondence or shopping, walking or getting about, and eating.
>
> Facilities for the mentally retarded were defined as formally state licensed or contracted living quarters which provide 24-hour, 7 days-a-week responsibility for room, board, and supervision of mentally retarded persons (Hauber, et al., 1984, p. 3).

Households which provide care only to relatives, and independent living apartments where no staff reside, were explicitly excluded.

Separate procedures were followed in compiling the two listings. The nursing home list was obtained by updating the 1982 National Master Facility Inventory (NMFI) (Sirrocco, 1985) listing of nursing and related care homes, in time for the first ILTCP mail-out (Spring, 1986). The updating process involved contacting all states and the District of Columbia for their most current listings. These were then compared with the updated 1982 NMFI entries, and the NMFI list was expanded as necessary to include newer facilities.

The mailing list of facilities for the mentally retarded was obtained by updating the 1982 National Census of Residential Facilities (NCRF), (Hauber, et al., 1984). The NCRF is a census of residential facilities for the mentally retarded, compiled by the Center for Residential and Community Services at the University of Minnesota

under a grant from HCFA. NCHS applied updating procedures similar to those used to update the list for nursing homes: states and relevant associations were contacted for listings during the latter half of 1985. Facilities not appearing on the 1982 Census were added to form a more recent depiction of the universe.

After adding new facilities, a matching process was begun to remove duplicates from within and between the two files. If there were any doubts as to whether a place was a duplicate, it was retained on the Inventory (Sirrocco, 1986). The final inventory mailing list consisted of 56,720 facalities.

The Inventory Data

The ILTCP survey instrument was designed to obtain data items required for the NMES Institutional Population Component sample selection. Data items included the following: type of ownership, population group primarily served (e.g., mentally retarded), age group of population served, type of facility [e.g., Skilled Nursing Facility (SNF)], number of total beds set up and staffed for use, number of certified beds for specific types of care, annual admissions, number of current residents, and operational status. Confidential data items included type of service routinely provided (e.g., medical); numbers of residents by veteran status, ethnic group and age, and; number of mentally retarded residents.

Data Collection Methods

The ILTCP was conducted by the Bureau of the Census as a mail survey with telephone follow-up to nonrespondents and facilities which did not provide key data items. (Key items included type of ownership, groups primarily served, facility type, number of beds set up and staffed for use, types of services provided, and availability of 24-hour full-time supervision.) All facilities on the initial Inventory file were mailed the ILTCP questionnaire in February, 1986. A reminder letter was sent to all facilities one week later. Questionnaires were returned for 46.7% of the facilities by the first cut-off date. Questionnaires returned by the Post Office as undeliverable, those returned as initial refusals or blanks, and as nonrespondents were excluded from this group of "returns".

Four weeks after the first mail-out, nonresponding facilities and facilities with Postmaster return address corrections were sent a second copy of the self-enumeration questionnaire. An additional 14% replied. Three weeks later, a third and final mailing was made to nonresponding or address-corrected facilities. Another 8.5% replied. Overall, 69% of the facilities replied by the end of the mailing phase.

The Census Bureau's regional offices conducted field follow-up activities to nonresponding facilities between April 29, and July 11, 1986. Eligible for follow-up were mail-out nonrespondents and initial refusals. In addition, approximately 3,300 Postmaster returns without address corrections were reviewed by NCHS for follow-up eligibility. Approximately 1,900 were declared ineligible because of undeliverable names and addresses (e.g., Group Home, Atlanta, GA) on the premise that if the facility was still in business, its corrected name and address would have been added to the Inventory during the Inventory updating process.

A total of 15,895 facilities (27%) were eligible for field follow-up interviews (Sirrocco, 1986). Most of the follow-up interviews (87%) were conducted by telephone, using an interviewer-administered version of the self-enumeration questionnaire. Personal visits were made to facilities which could not be contacted or would not consent to a telephone interview and that were located in the Bureau of Census's current survey primary sampling units. At a minimum, interviewers attempted to illicit follow-up information on facility type, number of beds set up and staffed for use, and facility certification status.

Returned questionnaires were assigned appropriate check-in codes prior to data processing, and subjected to a series of edit and coding steps. A final status code for each facility was created during final computer processing by collapsing facility check-in codes, follow-up interview status, and non-interview reason codes into 12 Final Facility Status categories. The Census Bureau regional offices created the "Other Non-interview" code for cases not properly annotated. Multiple data file records with the same identification number sometimes occured because some mail questionnaires were returned for more than one mailing. The following criteria were used to determine which record was to be retained. First, if one of multiple records was an interview and the other a non-interview, the interview record was retained. Secondly, if one of multiple records was a self-enumeration version, and the other was interviewer-administered, the interviewer record was retained. Lastly, if neither of the above was applicable, either the record with more complete data was retained or if both were equally completed the earlier record was retained.

By the end of the data collection phase, the final Inventory file consisted of 56,728 facilities -- all facilities on the ILTCP mailing list, plus 8 facilities reported to the Census Bureau during the field period and subsequently added to the Inventory. The distribution of these facilities by Final Facility Status is shown in Table 1. Eighty percent completed and returned the ILTCP questionnaire. Partial interviews were the largest group (77%). These were defined to be any questionnaires with at least one missing data item, regardless of the importance of the item. An additional 10% were found to be closed or temporarily out of business, and 4% were identified as duplicates or a home office only. Remaining facilities (6%) refused or could not be located or contacted. Refusals comprised only 0.3% of all Inventory facilities.

Preparation of the ILTCP as a Sampling Frame

Elimination of Out-of-Scope Facilities

The first step in preparing the IPC sampling frame was the elimination of out-of-scope facilities. These were defined as facilities with a Final Status of: out-of-business/never in business; home office only, no services provided; insufficient name and address; completed for different name and/or identification number

(i.e., duplicate records); and those unable to be located.

Facilities with insufficient name and address (e.g., Group Home, Atlanta, Georgia) -- 0.5% of the facilities -- were eliminated on the premise that, if the facility was still in business, its corrected name and address would have been added to the Inventory during the Inventory updating process. Facilities which could not be located (i.e., by mail, telephone, and in-person follow-up; 3.5%) were judged to be no longer in business, and were eliminated. Facilities with a dual chance of selection (4.2%) were also eliminated. The remaining out-of-scope facilities (9.3%) failed to provide long-term care services (e.g., closed facilities) and were eliminated.

After eliminating 9,871 out-of-scope facilities, the Inventory consisted of 46,857 facilities. This group included ILTCP nonrespondents (e.g., refusals, those unable to be contacted), temporaily closed facilities, as well as the partal and completed interviews. Temporarily closed facilities (0.4%) were included on the premise that they might re-open prior to the start of the 1987 IPC field period, and thus required a probability of selection.

Elimination of Duplicate Records

Preliminary review of the file, after sorting by zip code, suggested that some facilities which had duplicate records remained. Prior to identifying and eliminating these duplicates, it was necessary to clean the Inventory data so as to provide the most accurate facility identifying information (i.e., name, street address or P.O. Box, city or town, state, and zip code).

Throughout the data collection phase, the Census Bureau updated, with Postmaster returns or field follow-up information, facility names and addresses from the original ILTCP mailing list. Respondents were also asked to verify or correct updated information as part of the ILTCP questionnaire. Thus, the Inventory file consisted of identifying information as corrected by the respondent, updated Census information, and original mailing information. For each facility record, the most updated name, street address, city, state, and zip code was used. Two facilities were missing zip codes, these were obtained from local Post Offices. For each in-scope facility the zip code was compared to the state, and inconsistent state and zip codes were replaced with those used by the Census Bureau for the last questionnaire mailing. Information within a field was not reviewed for data entry errors.

Potential duplicate records were identified using three computer-matched files. First records with matching zip codes and matches of the first 10 positions of facility name, and the first 10 positions of the facility street address were identified. This "potential duplicate" file of 1,811 records was then printed for visual review by NCHSR analysts.

Records with identical data (except identification numbers) were considered duplicates and were transferred from the potential duplicate file, to a new file containing "true duplicates". Records with different names and/or addresses due to abbreviations, but matching key ILTCP items, were also considered duplicates. All but one of these was added to the true duplicate file mentioned earlier. Records with identical names and addresses and generally identical ILTCP data were also considered duplicates. Records with matching names and ILTCP data were considered duplicates if one record had a street address and the other record had a P.O. Box address. Rather than erroneously deleting separate and distinct units, records with slightly different names and at the same address (e.g., Crestmont Nursing Center, and Crestmont ECF) were not considered duplicates unless all key ILTCP data matched exactly. If there was any doubt as to whether a record was a duplicate, it was retained.

As second file of potential duplicates was created by computer matching the zip code and the first 10 positions of the facility name, but not matching the first 10 positions of the street address. A third file of potential duplicates was created by computer matching the zip code and the first 10 characters of the facility street address, but not matching the first 10 characters of the facility name. The first potential duplicate file, minus the true duplicates, was then merged with the second and third potential duplicate files. These three potential duplicate files contained mutually exclusive records. The combined potential duplicate file of 7,573 records was then printed for visual review. The same duplicate record criteria described previously were again utilized.

A total of 1,570 true duplicates (2.8% of all ILTCP facilities) were identified by this process, and deleted from the in-scope Inventory file (Table 2). The overwhelming majority of these (95.4% of all duplicate records) had a Final Status designation of "Partial Interview"; however, this represented only 3.4% of all partial interviews. The proportion of duplicate records within each of the Final Status categories was fairly uniform and no status category contained more than 6.2% of the duplicate facilities (Table 2).

After eliminating 1,570 duplicate records, the in-scope Inventory file consisted of 45,287 facilities, or about 80% of all ILTCP facilities (Table 2).

ILTCP Nonresponse

The ILTCP response rate for the in-scope facilities was high at 96.5%. The mean item response rate for all data items, excluding name and address items, was 93.7%. For the data items used for selecting the IPC sample, the item response rate was generally higher than the mean (Table 3).

Several strategies, including secondary source replacement, logical imputes and median value imputation procedures, were used to minimize the level of missing data. This work was done in stages. First, constructing the implicit sampling stratification variables using secondary sources and logical imputes to replace missing data. Construction of the explicit sampling strata and eliminating ineligible facilities followed. Missing bed size and admissions data were then imputed. And finally the measure of size variable was created.

Five implicit stratification variables were constructed -- Census region, certification status, ownership, bed size, and admissions. The

Census region variable was constructed using facility address information. There was no item nonresponse.

Two certification status variables -- one for nursing homes (SNF/ICF) and the other for facilities for the mentally retarded (ICF-MR) --were created using ILTCP data on facility type, number and kinds of certified beds, and field follow-up information. Item response was over 96% for both items. Logical imputes replaced missing data for a small number of facilities (0.4%). Secondary sources were then used to replace missing SNF/ICF (1%) and ICF-MR (1.4%) data. Sources used were the 1982 National Master Facility Inventory (NMFI; Sirrocco, 1985), the 1982 National Census of Residential Facilities (NCRF; Hauber, et al., 1984), and information used by NCHS during construction of the 1986 ILTCP mailing list. Facilities with unknown certification status after replacement were then categorized into an unknown certification status category.

Similar item nonresponse procedures were used to create the ownership variable, except that facilities with unknown ownership (2.4%) were categorized with the for-profit facilities (the largest group), rather than into an unknown category.

The item response rate for bed size was almost 96% and secondary sources were used to replace missing data for only 1.6% of the facilities. After replacement, a median value imputation procedure was used for all remaining in-scope and eligible facilities (see next section for definition of eligible facilities) with missing bed size information (2.2%). Within each of the five bed size categories specified for IPC sample selection and stratifying for facility type (NH or MR), ownership, and certification status, the median value of bed size for facilities with this information was used for imputation to the facilities with unknown bed size.

The item response rate for numbers of admissions was considerable lower (81.9%) then for the other implicit stratification variables. The majority of these facilities (17.5%) had ILTCP bed size information which was used to logically impute much of the missing data. A small number of facilities (0.4%) had missing values replaced using secondary sources. For the remaining in-scope and eligible facilities with missing admissions (2.2%), the following procedure was used. Ratios of admissions to beds were computed after stratifying for facility type, certification status, and bed size categories for facilities opened all year with annual admissions data. Missing admissions data were then imputed using the product of an admissions ratio and bed size. Table 3 summarizes the strategies used to minimize the level of missing ILTCP data.

Identification of Eligible Facilities

The next step was the identification of NMES IPC eligible facilities and the construction of the explicit sampling strata. To be included as a nursing or personal care home a facility must have met one of the following definitions:

(1) A place or unit certified as a Skilled Nursing Facility (SNF) by Medicare or Medicaid.

(2) A place certified as an Intermediate Care Facility (ICF) by Medicaid.

(3) A place or unit with three or more beds for clients where clients reside, that provides personal care -- help with Activities of Daily Living (ADL) or Instrumental Activities of Daily Living (IADL), that is not a licensed hospital, that does not serve primarily or exclusively persons with specific physical, mental or emotional conditions, i.e., is not a categorical institution (for alcoholics, etc.), and, that, if a unit of a larger institution, can identify its eligible residents separately from those of the institution as a whole.

By the above definition, all SNF- or ICF-certified units of licensed hospitals are eligible for the sample. In such cases, and in the case of retirement homes with nursing care wings, only the long-term care unit of the facility was included the sample universe.

To be included as a facility for the mentally retarded one of the following definitions had to be met:

(1) A place or unit certified as an Intermediate Care Facility for the Mentally Retarded (ICF-MR) by Medicaid.

(2) A place or unit with three or more beds for clients who reside there, that provides to mentally retarded persons either personal care (ADL or IADL) or protective oversight -- 24-hours-a-day, seven-days-a-week supervision, that is not a licensed hospital, except a hospital for the mentally retarded, and, that is not a family providing services exclusively to a relative or relatives.

Eligible facilities were identified using computerized algorithms which applied a hierarchy of criteria which operationalized the above defintions. All programming was done in SAS (SAS Institute, 1982) using the following ILTCP data items: the 10 primary groups served; the 15 facility types; number of total beds; number of SNF Medicare, SNF Medicaid, ICF Medicaid, or ICF-MR Medicaid beds; the eight services routinely provided; full-time supervision of residents; number of mentally retarded residents; and field follow-up information on type of place, number of beds, and certification status. To minimize the level of missing data, ILTCP data were again supplemented with data from the 1982 National Master Facility Inventory (Sirrocco, 1985), the 1982 National Census of Residential Facilities (Hauber, et al., 1984), and information used by NCHS during the construction of the Inventory mailing list.

Eligibility as a nursing and personal care home (NH/PCH) was determined first. Twenty-six hierarchal criteria were used; these are shown in Table 4 (see Appendix 1 for definitions and abbreviations). Thus, 24,931 ILTCP facilities were classified as nursing and personal care homes. Of those facilities thus far classified, 95.1% were categorized based upon only the first four criteria. The first criterion classified 59.8% of the NH/PCH's because the facility responded

positively to the question of SNF or ICF facility type. Another 4.8% reported having SNF or ICF certified beds. NH/PCH-like places were considered to be licensed nursing homes, nursing units of retirement centers, shelter or custodial care homes, or other nursing or personal care homes. NH/PCH-like places that also provided some personal care (PC; i.e., nursing or medical care, supervision over medication, or help with bathing, dressing, correspondence or shopping, walking or getting about, or eating), and primarily served "no one group" (13.0%) or served "some other group" (e.g., elderly)(17.5%) were also classified as NH/PCH's.

Eligible as a facility for the mentally retarded (MR) was then determined using the 23 criteria shown in Table 5. Thus, 19,478 facilities were classified as facilities for the mentally retarded. Of those, over 82% were categorized based upon the first three criteria. Facilities responding positively to the question of ICF-MR facility type accounted for 19.0%. Another 7.8% indicated the facility had ICF-MR certified beds. And 55.6% of the facilities were considered MR-like places that provided some personal care or 24-hour, full-time supervision, and also primarily served the mentally retarded/developmentally disabled, or mentally retarded/mentally ill. MR-like places were defined as foster homes for the mentally retarded/developmentally disabled (MR), group residences for the MR, semi-independent living for the MR, state institutions for the MR, other places for the MR, licensed nursing homes, long-term care units of licensed hospitals, nursing units of retirement centers, or sheltered or custodial care homes.

Of the 45,287 in-scope facilities, 4,014 failed to met the definitions for a nursing home or facility for the mentally retarded. These were deleted. Of the 41,273 remaining facilities, 21,795 were classified as nursing home only, 16,342 were classified as a facility for the mentally retarded only, and 3,136 met the criteria for both types of facilities. A hierarchy of criteria, driven by a facility's ICF-MR certification status (which was of particular analytic interest), was then developed to classify the 3,136 overlapping facilities into one of the two universes. These criteria are shown in Table 6 as Steps 1-17.

Originally, one and two bed MR facilities were to be included in the universe of facilities for the mentally retarded. A final comparison of the 1986 ILTCP MR universe to the 1982 NCRF universe (Hauber, et al., 1984) suggested undercoverage of one and two bed MR facilities by the ILTCP. A likely explanation is that the very small MR facilities are more likely to close or move, than large facilities (Hauber, et al., 1984, p. 34). This jeopardized completness of the frame, so one and two bed MR's were deleted at the end of the eligibility determination process (Table 6, Step 18).

Of the 45,287 in-scope facilities, 38,930 (86%) were finally considered eligible. Included in the nursing and personal care home frame were 23,579 facilities; the frame of facilities for mentally retarded included 15,351 facilities. Of the 23,579 NH/PCH's, 1,784 -- or 7.6% of all NH/PCH's -- also met the definition of a facility for the mentally retarded. Conversely, of the 15,351 MR's 1,347 -- or 8.8% -- also met the definition of a nursing/personal care home. Table 7 summarizes the distribution of the 38,930 eligible facilities by facility type, before and after the overlap between types was removed. Figure 1 summarizes the distribution of all 56,728 ILTCP facilities and shows their final sampling frame status.

Comparison of the ILTCP to the IPC Sample of Facilities

Tables 8 and 9 show the distribution of the nursing and personal care universe, and the universe of facilities for the mentally retarded, by the implicit sampling strata categories. These sort variables led to 900 potential cells for the NH/PCH's and 900 potential cells for the MR's. Four major Census region categories and three ownership categories were used for sorting both the NH/PCH and MR frames.

The five stratification categories for NH/PCH bed size and admissions variables were similarly defined except for a lower bound of three beds and zero admissions. Although certification status was initially intended for use as a sort variable in the selection of the NH sample, it was not used when the sample was actually drawn. However, the variable is shown in Table 8 for comparision purposes.

Certification status was used as a stratification variable when the MR samples (there were two explicit MR strata: ICF-MR with 3-15 beds, and other MR facilities) were drawn. Categories were defined as Medicaid ICF-MR, not certified, and an unknown group. There were only five unknowns.

MR bed size and admissions categories reflected the large number of small MR facilities (53% had at least three beds but not more than six). Bed size and admissions categories were again similarly defined except for the lower bound.

Tables 8 and 9 also show the distributions of the final IPC sample of 815 nursing and personal care homes, and 899 facilities for the mentally retarded. Weighted and unweighted distributions for the sample are shown. Weighted figures are prior to post stratification.

The distribution of the IPC sample of NH/PCH's across Census regions, ownership type, bed size and admissions categories showed no significant ($p \leq 0.05$) differences when compared to the ILTCP distribution. A comparison of the distributions for certification status did reveal a significant ($p \leq 0.05$) difference for the ICF/not SNF certified and the not certified groups. There were no significant ($p \leq 0.05$) differences between the IPC distribution and the ILTCP distribution for the MR facilities.

Conclusions

This report describes the 1986 Inventory of Long-Term Care Places and its use as a sampling frame for the Institutionalized Population Component of the 1987 National Medical Expenditure Survey. The ILTCP was described as the most up-to-date comprehensive listing of nursing and personal care homes and facilities for the mentally retarded in the 50 states and the District of Columbia. It should be noted, however, that undercoverage exists in the ILTCP for facilities

that have recently opened. An IPC field procedure was adopted to correct for a portion of this undercoverage.

This paper presents an overview of the complex nature of the IPC sample design and a detailed description of the ILTCP. In addition, it provides information on: how the Inventory mailing list was created, ILTCP data collection methods, field results based upon the 56,728 ILTCP facilities, and Inventory preparation prior to sampling. Details for determining out-of-scope facilities, duplicate records, and ineligible facilities were also presented. Furthermore, the level of ILTCP missing data was assessed, methods of imputation used were described, and procedures used to create the explicit and implicit IPC sampling strata were specified. This report concluded with a comparison of population distributions of facility level characteristics derived from the ILTCP with estimates derived from the IPC sample of nursing and personal care homes, and facilities for the mentally retarded.

The views expressed in this paper are those of the authors, and no official endorsement by the Department of Health and Human Services, or the National Center for Health Services Research and Health Care Technology Assesment is intended or should be inferred.

Acknowledgements

The authors wish to thank Sophie Nemirovsky, Bob Cohen and Angelita Manual of Social and Scientific Systems, Inc., for their programming support, and Bob Petz, Evelyn Manstof, Bill Ashby, and Mary Gore their typing support.

References

Cohen, S.B., P. Flyer and D.E.B. Potter. SampleDesign of the Institutional Population Component -- National Medical Expenditure Survey. To be presented at the 1987 Annual Meeting of the American Public Health Association, New Orleans. October, 1987.

Hauber, F.A., R.H. Bruininks, R.H. Hill, K.C. Lakin, and C.C. White. National Census of Residential Facilities: Fiscal Year 1982. Minneapolis: University of Minnesota, Department of Educational Psychology. 1984.

SAS Institute. SAS Users Guide: Basics, 1982 Edition. SAS Institute Inc., Cary, North Carolina. 1982.

Sirrocco, A. "An Overview of the 1982 National Master Facility Inventory of Nursing and Related Care Homes", Advance Data. NCHS, Number 111. September 20, 1985.

Sirrocco, A. Personal correspondence to the authors. November 5, 1986.

Note

Tables 1-7, Figure 1, and the Appendix were not presented due to space limitations. They may be obtained by writing Ms. D.E.B. Potter.

Table 8. Distribution of the ILTCP Sampling Frame and the NMES IPC Sample of Nursing/Personal Care Homes, by the Implicit Stratification Variables.

Implicit Strata	ILTCP Frame		NMES IPC Sample			
			Unweighted		Weighted	
	Number	(Percent)	Number	(Percent)	Number	(Percent)
All Facilities	23,579	(100)	815	(100)	23,874	(100)
Census Region						
Northeast	4,574	(19)	195	(24)	5,144	(22)
Central	6,885	(29)	254	(31)	6,773	(28)
South	6,671	(28)	210	(26)	6,295	(26)
West	5,449	(23)	156	(19)	5,662	(24)
Certification Status[a]						
SNF	9,396	(40)	568	(70)	9,431	(39)
ICF/not SNF	5,867	(25)	146	(18)	4,729	(20[a])
Not certified	7,891	(33)	100	(12)	9,440	(40[a])
Unknown	425	(2)	1	(<1)	274	(1)
Ownership						
Profit	17,911	(76)	580	(71)	18,338	(77)
Nonprofit	4,488	(19)	175	(21)	4,125	(17)
Government	1,180	(5)	60	(7)	1,411	(6)
Bed Size						
3-15	6,410	(27)	25	(3)	6,915	(29)
16-49	4,224	(18)	67	(8)	4,546	(19)
50-99	6,000	(25)	187	(23)	5,667	(24)
100-199	5,755	(24)	361	(44)	5,532	(23)
200+	1,190	(5)	175	(21)	1,214	(5)
Admissions						
0-15	9,337	(40)	58	(7)	9,906	(41)
16-49	5,736	(24)	141	(17)	5,450	(23)
50-99	4,187	(18)	181	(22)	4,039	(17)
100-199	3,043	(13)	228	(28)	3,047	(13)
200+	1,276	(5)	207	(25)	1,432	(6)

[a]Although certification status was not used as a stratification variable it has major relevance as a control variable for nursing home analysis. A comparison of the distribution for certification status for the IPC sample facilities with ILTCP distribution indicates a significant difference, $p \leq 0.05$.

Source: National Center for Health Services Research and Health Care Technology Assessment. ILTCP data.

Table 9. Distribution of the ILTCP Sampling Frame and the NMES IPC Sample of Facilities for the Mentally Retarded, by the Implicit Stratification Variables.

Implicit Strata	ILTCP Frame		NMES IPC Sample			
			Unweighted		Weighted	
	Number	(Percent)	Number	(Percent)	Number	(Percent)
All Facilities	15,351	(100)	899	(100)	15,339	(100)
Census Region						
Northeast	3,764	(25)	227	(25)	4,139	(27)
Central	4,987	(25)	275	(31)	4,694	(31)
South	2,646	(17)	187	(21)	2,203	(14)
West	3,954	(26)	210	(23)	4,303	(28)
Certification Status						
Not certified	10,883	(71)	499	(56)	10,884	(71)
ICF-MR certified	4,463	(29)	399	(44)	4,419	(29)
Unknown	5	(<1)	1	(<1)	36	(<1)
Ownership						
Profit	7,241	(47)	378	(42)	7,164	(47)
Nonprofit	6,245	(41)	282	(31)	6,571	(43)
Government	1,865	(12)	239	(27)	1,604	(10)
Bed Size						
3-6	8,127	(53)	225	(25)	8,427	(55)
7-15	4,787	(31)	183	(20)	4,426	(29)
16-74	1,805	(12)	198	(22)	1,863	(12)
75-299	442	(3)	146	(16)	427	(3)
300+	190	(1)	147	(16)	196	(1)
Admissions						
0-6	13,570	(88)	453	(50)	13,570	(88)
7-15	1,096	(7)	149	(17)	1,055	(7)
16-74	575	(4)	206	(23)	593	(4)
75-299	79	(1)	60	(7)	80	(<1)
300+	31	(<1)	31	(3)	41	(<1)

Source:National Center for Health Services Research and Health Care Technology Assessment. ILTCP data.