# The Pennsylvania Domiciliary Care Experiment: I. Impact on Quality of Life

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Abstract: This paper reports findings concerning the impact on quality of life of a case management focused program of small board and care facilities serving aging, mental health, and mental retardation adult target populations—the Pennsylvania Domiciliary Care Program. Program participants from the counties in which the Domiciliary Care Program was initiated were matched with persons residing in similar counties without the program who were comparable on a large array of characteristics prior to program

The population of at-risk individuals needing long-term care is substantial and increasing rapidly. It has been estimated that the potential demand for long-term care will increase from between 6.3 to 11.1 million in 1980 to between 7.4 and 12.5 million by 1985.<sup>1,2</sup> Current estimates are that: about 3 per cent of the population are mentally retarded;<sup>3</sup> about 12 per cent have mental disorders;<sup>4</sup> and, of the population age 65 and older, about 18 per cent have functional impairments sufficient to necessitate long-term supportive services.<sup>5</sup> Despite the increasing consideration given to alternatives in long-term care for all groups and deinstitutionalization efforts for the mental health and mental retardation target groups, institutional placement still constitutes a primary publicly supported service delivery mechanism.6 At the same time, data indicate that many persons placed in such long-term care institutions could function in less sheltered community environments were they available.7-9

Small board and care facilities represent such an option. Unfortunately, little is known about the impact of such facilities on the quality of life of the residents or its cost/benefit implications. This paper reports measures of the impact on the quality of life of recipients of the Pennsylvania Domiciliary Care Program. A companion article presents cost/benefit findings for this program.<sup>10</sup> initiation. Conducted separately by target group, 10month follow-up assessments provided the basis for determining impact. In general, the effects were positive, particularly with respect to meeting program quality of life goals (providing needed services, improving living conditions, increasing community integration, and reducing institutional days); the effects were more positive for the aging and mental health than for the mentally retarded target populations. (*Am J Public Health* 1983; 73:646–653.)

# The Pennsylvania Domiciliary Care Experiment

The Pennsylvania Program was developed by state and regional staff of the interagency Domiciliary Care Task Force of the Pennsylvania Department of Public Welfare, with the following quality of life and cost saving goals in mind:\*

- Meeting the service needs of the target populations (aging, physically impaired younger adults, mental health, and mental retardation clients);
- Having a positive impact on the living conditions of the target populations;
- Having a positive impact on integrating the target population into community life;
- Reducing institutionalization in a nursing home, state hospital, or other long term care institutional facility (encompassing both prevention and deinstitutionalization objectives); and
- Reducing costs of care; i.e., to be cost beneficial.

Although housed under the aegis of the Office of Aging, the program was planned and implemented as an integrated effort to serve the target populations of the offices of Aging, Mental Health and Mental Retardation, and Income Maintenance; the county agencies of these three offices were to contribute either in manpower or funds to the operation of the Domiciliary Care Program in their areas. The pilot phase was initiated in selected counties representing rural, mixed rural-urban, and urban areas; the program was begun in late 1976.

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Editor's Note: See also related article p 645 and editorial p 638 this issue.

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<sup>\*</sup>The specification of these goals is based on a perusal of the minutes of the meetings and the resulting documents of the interagency Task Force.

Before the program was initiated, it was recognized by the program planners that a multi-faceted evaluation project accompanying the initial effort could provide valuable knowledge concerning its feasibility and impact. With the cooperation of the Pennsylvania Central Office of the Domiciliary Care Program, in July 1976, just prior to program implementation, an independent federally supported multifaceted evaluation of the program was initiated by the Department of Social Gerontological Research of the Hebrew Rehabilitation Center for Aged in Boston. We report here the results of one part of this study.

Some of the features of the program and a summary of findings concerning applicants are presented first to serve as background for this and the companion article.<sup>10</sup>

#### The Domiciliary Care Program

The program offers supplementary payments for individuals (age 18 or older) residing in approved domiciliary care facilities who are financially eligible for Supplementary Security Income (SSI) and judged to be incapable of independent living in the community, but do not require services that can be obtained only in a nursing home or other longterm care institution (e.g., 24-hour medical supervision). Approved domiciliary care facilities include homes housing up to 13 clients in which personal care services, including 24hour supervision, are offered by the proprietor in addition to the normal range of meals, laundry, and other needed household services. Facilities with three or less clients had to meet the program home criteria only; the larger homes had to meet the additional building and safety code regulations which apply to nursing and boarding homes. The vast majority of homes in the program were small homes with one to three clients. The only larger homes were group homes for the mentally retarded, functioning prior to the program, but housing program-eligible residents who became program clients.

Case Management and Home Approval/Monitoring Functions—Through contractual arrangements with local Area Agencies on Aging, local Domiciliary Care Placement Agencies were created and given responsibility for client assessment, placement, service coordination, and other case management functions as well as home/provider inspection, certification, and legal agreements. Staff were trained in the use of a standard assessment tool and home inspection criteria.\*\* A complete reassessment of the client for functional eligibility and need for ancillary services and an inspection of the home were carried out annually.

The home providers were responsible for supervision within the home setting. Although the program organizes training sessions and provides back-up to the providers, the small home providers are generally not specifically trained as service professionals; in the few larger group homes for some of the mentally retarded target population, professional staff are responsible for the care of the residents.

The Financial Component—The area Income Maintenance Office is responsible for determining client financial eligibility for the federally administered State optional supplement for domiciliary care. From a combined state and federal SSI payment, a fixed amount is paid to the proprietor of the domiciliary care home by each client. When this program was first started in 1976, the state supplemented SSI payment to the client was \$315 monthly, of which \$270 was paid by the client to the domiciliary care home provider. During the period of data collection for this study, the federal base increased as did the amounts paid to the provider.

Applicants for Domiciliary Care—The majority of adults applying for domiciliary care were referred by their respective target group agencies.\*\*\* Less than 10 per cent were difficult to place in one of the three groups to be studied: Aging, Mental Health, and Mental Retardation. To a large extent, applicants not in these groups were physically impaired adults under age 65 referred by organizations dealing with the adult physically handicapped or by physicians, or were self-referrals. In general, characteristics of these applicants so closely resembled those of the aging client population that they were included with the aging group in the analyses.

Clinical assessments confirmed that the applicants were in need of the services provided by the Domiciliary Care Program. In terms of prior living arrangements, a higher percentage of the mental health clients than of the aging or mental retardation clients were institutionalized at the time of application. There were also considerable areas of overlap: almost one-half of the mental health and almost onefourth of the mental retardation referral populations were over 60 years of age; there was considerable overlap with respect to physical functioning and, to a lesser extent, in intellectual functioning and emotional status. Over half of the applicants in each of the target groups were female; only 3 per cent were currently married and living with spouse; only a minority in each of the target groups had children living nearby, although there were significant differences (5 per cent of the mental retardation group, 22 per cent of the mental health group, and 35 per cent of the aging clients had children nearby).

Domiciliary Care Homes/Providers—Based on interviews with domiciliary care providers, 91 per cent of homes were single family dwellings; 62 per cent had private bedrooms for their clients, and an additional 18 per cent had a mixture of private and shared bedrooms. The majority of providers had at least a high school education. At application, most providers did not work outside the home. The median annual income (not including domiciliary care client payments) was between \$6,000 and \$7,000. Thirteen per cent of the client applicant group and 30 per cent of the providers were Black (with almost all Black providers living in an urban area). There was an almost equal mixture of couples and single (the majority female and widowed) providers, with the median age of the provider with primary responsi-

<sup>\*\*</sup>Available on request to authors.

<sup>\*\*\*</sup>Reports presenting empirical analyses concerning the applicants and domiciliary care homes are available on request to the authors.

#### SHERWOOD AND MORRIS

bility for care being 56 years. Thirteen per cent of the single and 39 per cent of the married providers had children under age 22 living with them. In addition, 27 per cent of the single and 22 per cent of the married providers had other adults living in the household.

On the whole, relationships between the providers and clients can be described as family-like. For example, in 82 per cent of the homes the provider and clients address each other by their first names, and 96 per cent of the providers say that their clients perceive their relationship in the home as resembling that of a family member or friend. Furthermore, a relatively low level of rules appears to be imposed on the clients; in virtually all cases the clients are free to fix up their rooms as they wish; there are no restrictions regarding where or when visitors are allowed; and, aside from bedrooms, no rooms are out of bounds to clients.

About one-fifth of the providers report spending less than four hours each day caring for their clients; 41 per cent spend between four and eight hours, and 38 per cent report spending more than eight hours each day. Homes rendered the following services: laundry (97 per cent); personal shopping (83 per cent); cleaning the client's room (80 per cent); providing transportation to social activities (77 per cent); handling money (65 per cent); and supervising or administering medications (65 per cent). Other services rendered in over 20 per cent of the homes include: assistance in grooming (49 per cent); bathing (37 per cent); dressing (26 per cent); and preparing a special diet (21 per cent).

# Quality of Life Impact Evaluation

## **Sample Construction**

Individuals referred to the program (the potential Experimentals) were interviewed shortly after application but prior to placement. On average, aging clients were placed sooner than mental health and mentally retarded clients.‡ Individuals in the target populations who resided in similar areas of Pennsylvania in which a domiciliary care program had not been implemented (the potential Controls) were also interviewed at about the same time. These interviews constituted the baseline or "pretest" data.

From these pools of potential Experimentals and Controls, samples of Experimentals (placed clients) and Controls were constructed separately for each of the following three groups: aging (including physically impaired), mental health, and mental retardation, controlling as well for type of residence (community or institution) at pretest. For each sub-category (e.g., "aging, institutionalized at pretest"), the final selection of Experimentals and Controls was based on a computer procedure entitled SIMRAN©.

For each sample, this procedure includes two stages: 1) establishing criteria for what is to be considered an accept-

able frequency matched sample of Experimentals and Controls; and 2) selecting the maximum acceptable impact sample of Experimental and Control group subjects from the two pools. The minimum criteria for inter-group comparability for acceptable samples is set by estimating what an average random draw of Experimentals and Controls would look like with respect to a large array of variables when the combined potential Experimental and Control pools are considered as a sample universe.<sup>‡‡</sup> The second stage involves a large number of computer trials in which equal numbers of Experimentals and Controls are selected, keeping, to the extent possible, the smallest potential pool intact and randomly drawing samples from the larger of the potential pools of subjects. To be considered acceptable, the final selection had to "look better" (e.g., have fewer significant pretest differences between the selected samples of Experimentals and Controls) than the 50th percentile of the modelled impact samples.<sup>‡‡‡</sup> The final samples utilized in determining the effects on variables that did not specifically require an interview with the sample member are shown in Table 1.

Primarily because of deaths in the aging impact samples (a little over 10 per cent, comparable for Experimentals and Controls), posttest interviews, the source of data for a number of the quality of life analyses, were not possible for all of the sample members. Only sample members interviewed both at pretest and posttest were used in analyses involving outcome variables derived from interview data. While the aging institutional and community subsamples are thus somewhat reduced for analyses of impact on such quality of life outcome variables, these reduced subsamples met the impact sample acceptability criteria. In general, there was only slight attrition elsewhere. The reduced subsamples are also shown in Table 1.

## **Analytic Strategy**

Four of the goals of the program involve quality of life outcomes—provision of needed service, quality of living conditions, integration into community life, and reducing time spent in a long-term care facility. These outcomes plus functional status (physical and psychological) constitute the subject matter (outcome domains) of the analyses to be presented.

Impact over a period of ten months was determined. Differences found at the  $p \le .05$  probability level were considered to be statistically significant. Program impact in all but one (reduced time in a long-term care facility) of these five domains was measured by clinical assessment and

<sup>&</sup>lt;sup>‡</sup>While the time it took to place applicants varied somewhat, case management program exposure for all applicants was initiated shortly after application in all cases.

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<sup>‡‡</sup>In this study, 50 modeled random samples were generated and computations completed for 47 variables for each of the aging and mental health subgroups and, because of limited data, 34 variables for each of the mental retardation subgroups. The array of variables included demographic, functional status, and pre-measures of outcome variables.

<sup>‡‡‡</sup>As is often the case, if no acceptable impact sample is found within a preset number of such trials (100 in this study), extreme outliers are excluded, the criteria reestablished using the reduced sample universe, and the second stage is initiated once again.

		Experimental	S		Controls		
	Total	Residence	at Pretest	Total	Residence at Pretest		
		Community	Institution		Community	Institut N	
	Ν	N	N	N	N		
Pretest Groups							
Aging	101	81	20	101	81	20	
Mental Health	45	17	28	45	17	28	
Mental Retardation	44	28	16	44	28	16	
Pretest/Posttest Groups							
Aging	84	68	16	86	69	17	
Mental Health	42	16	26	45	17	28	
Mental Retardation	43	27	16	42	26	16	

**TABLE 1—Samples Assessed by Residence at Pretest** 

subject self-report data derived from pretest and posttest interviews with the Experimental and Control subjects.

Pretest/Posttest Comparisons-Results of clinical assessment of and interviews with the Experimental and Control samples were compared using analysis of variance techniques. Significant differences between the different groups considered as a whole were examined as well as interactions between Experimental-Control group outcome and residential setting at pretest. As might be expected from the sample construction techniques, for the overwhelming majority of variables for which significant differences at posttest were found, no pretest differences were found. For such variables, significant posttest differences were considered to be indicators of impact. There were a few outcome variables which appeared only on the posttest interview. Given the initial overall similarity between the Experimental and Control groups at pretest, a general assumption of pretest equivalency was made with respect to these variables, and significant posttest differences were also considered to be indicators of impact.

Pretest differences were found between Experimentals and Controls in one variable each for the mental retardation and aging samples. In the former case, the difference at pretest was in the opposite direction to that found at posttest, and impact is claimed. In the latter case, the difference at pretest was similar to that at posttest, and therefore no impact is claimed.

The operationalized quality of life measures were identical for the aging and mental health samples since the interview conducted was identical for these groups. For the mental retardation population, although clinical assessment measures were similar to those for the other two groups, it was neither possible nor appropriate to conduct the same type of interview. Thus many of the self-report outcome variables for the mental retardation group differ from those of the aging and mental health samples.

Operational definitions of the outcome variables include single items, scales based on self-report data, clinical assessments and observations made by the clinically trained interviewer, and, in the case of the mental retardation sample, data collected from domiciliary or responsible agency staff. All scales utilized had an alpha reliability of .50 or higher. Inter-rater reliabilities (using an analysis of variance formula) for all clinical assessment outcome variables were .85 or higher, with most over .90. The single item self-report items were among those used successfully in previous studies and were found to be reliably obtained in this study (almost 100 per cent agreement between interviewer and clinical trainer/supervisor prior to the completion of field work training).

Data collected on days spent in a non-community setting did not depend entirely on interviews with sample members. Although self-report data were utilized when considered reliable, major sources of information included interviews with facility staff and/or service providers (including informal supports), Domiciliary Care Program records, interviews with Domiciliary Care Program officials, and hospital and social agency records.

# Results

#### **Meeting Service Needs**

The impact of the program on meeting the service needs of the target population was based on clinical judgments directly addressing this issue. Unmet needs in specific service areas\* were assessed as well as a more global measure assessing overall unmet needs. The global assessment takes into consideration the overall level of services (including need for sheltered living arrangements) required by the subject in order to live at an adequate level in the community. It is considered the most important of the clinical assessments addressing this issue.

While there were some mixed results, on the whole the program had positive effects on meeting service needs, as illustrated in Table 2. Moreover, it is possible that the seeming negative transportation/recreation findings for the deinstitutionalized aging and mental health samples is a

<sup>\*</sup>Transportation, recreation, escort service, counseling, advocacy.

	Aging			м	ental Healt	h	Men	tal Retarda	ition		
Outcome Variable by Data Source (Clinical Assessment or Self-Report)	Exp. N = 84 X	Control N = 86 X	p	Exp. N = 42 X	Control N = 43 X	ρ	Exp. N = 43 X	Control N = 42 X	р	Comment re observed differences (p ≤ .05) in Impact by Place of Residence at Pretest	
Clinical Assessments Overall Unmet Needs Summary Scale1	1.26	2.52	≤.001	1.05	3.47	≤.001	.81	2.55	≤.001	+ All groups more for Exp/Inst	
Recreational Needs Scale <sup>2</sup>	.45	.60	n.s.	.46	.60	n.s.	.26	.29	n.s.	+ Aging and MH Exp/Comm – Aging and MH Exp/Inst	
Unmet Counseling & Advocacy Needs <sup>3</sup>	.13	.20	n.s.	.07	.11	n.s.	.12	.14	n.s.	+ Aging Exp/Comm - Aging Exp/Inst	

TABLE 2-Significant Impact on Meeting Service Needs (Posttest Comparisons)

<sup>1</sup> Five point scale: 1 = no need, 5 = very high need.

<sup>2</sup> Four point scale: sum of 3 yes/no judgments, 0 = No unmet need.

 $^{3}$  0 = Needs met, 1 = Needs not met.

function of the frame of reference taken in these assessments. Institutional residents are often confined to the geographic area of the setting and, therefore, may not be considered to have a need (met or unmet) for transportation services; the majority of Controls in the institutional subgroup but only few of the Experimentals were still institutionalized at posttest. This frame of reference may also account for the mixed findings in the aging subsamples with respect to Unmet Counseling and Advocacy needs; i.e., it may have been assumed that advocacy needs are relevant only for community populations.

#### **Improving Living Situations**

In general, the program had a positive impact on the

living situations for all three populations. Table 3 presents the findings. The one area of negative impact (for the mental health group) concerned access to medical facilities for the deinstitutionalized Experimentals. Persons in a state institution can be expected to have easier access to the type of medical services required.

#### **Integration into Community Life**

Despite some variability, the program had positive effects on integrating clients into community life, although more broadly for the mental health and aging than for the mental retardation group, as shown in Table 4. The two variables for which mixed outcomes were found for the mental health Experimentals pertained to contact with

#### TABLE 3—Significant Impact on Improving Living Situations (Posttest Comparisons)

		Aging			lental Health	ו	Mer	ntal Retardat		
Outcome Variable by Data Source (Clinical Assessment or Self-Report)	Exp. N = 84 Ž	Control N = 86 X	p	Exp. N = 42 X	Control N = 43 X	p	Exp. N = 43 X	Control N = 42 X	p	Comment re observed differences (p ≤ .05) in Impact by Place of Residence at Pretest
Clinical Assessments										
How well equipped is										
phys. environment <sup>1</sup>	1.43	1.81	≤.001	1.49	2.09	≤.01	1.24	1.92	≤.001	None
Self-Report										
Good Place Scale <sup>2</sup>	4.70	4.88	n.s.	4.72	5.42	≤.05	4.39	4.80	n.s.	None
Relationship with										
people around <sup>3</sup>	2.84	2.68	≤.01	2.68	2.69	n.s.	2.98	2.85	n.s.	None
Feel about living										+ Aging and MH
situation⁴	1.15	1.36	≤.01	1.15	1.26	≤.001	N/A	N/A	N/A	mainly for Inst
Enough privacy⁵	1.07	1.13	n.s.	1.05	1.24	≤.05	1.05	1.14	n.s.	None
Environment										
Satisfaction Scale <sup>6</sup>	10.82	10.70	n.s.	10.80	9.69	≤.05	10.88	9.27	n.s.	+ MH = Inst
Location accessible										
to medical facilities⁵	1.89	1.82	n.s.	1.85	1.98	≤.01	2.00	1.83	n.s.	– MH = Mainly Inst
Gets to stores easily⁵	N/A	N/A	N/A	N/A	N/A	N/A	1.04	1.15	n.s.	+ MR/Inst

<sup>1</sup> Five point scale: 1 = very well equipped, 5 = dangerous.

<sup>2</sup> Responses to four questions scale: 4 = most favorable, 8 = least favorable.

<sup>3</sup> Three point scale: 3 = satisfactory, 1 = satisfactory.

<sup>4</sup> Three point scale: 1 = positive, 3 = negative.

<sup>5</sup> Two point scale: 1 = yes, 2 = no.

<sup>6</sup> Responses to four questions, scale: 12 = most favorable, 4 = least favorable.

		Aging		N	lental Healt	h	Men	ital Retardat	ion	
Outcome Variable by Data Source (Clinical Assessment or Self-Report)	Exp. N = 84 Ž	Control N = 86 X	р	Exp. N = 42 X	Control N = 43 X	р	Exp. N = 43 X	$\begin{array}{l} \text{Control} \\ N = 42 \\ \tilde{X} \end{array}$	p	Comment re observed differences (p ≤ .05) in Impact by Place of Residence at Pretest
Clinical Assessments										
Involvement Scale <sup>1</sup> Extent of outside	22.32	22.02	n.s.	22.45	20.49	≤.01	21.98	22.79	n.s.	None
friends <sup>2</sup> Extent of outside	3.01	3.10	n.s.	2.98	3.33	≤.05	3.07	3.05	n.s.	+ Aging Inst
interests <sup>2</sup> Self-Report	2.55	2.80	≤.01	2.29	2.71	≤.01	2.42	2.50	n.s.	None
How often attend religious services <sup>3</sup>	2.77	2.65	n.s.	2.48	2.80	n.s.	3.56	3.34	n.s.	+ Aging & MR/Comm - Aging & MR/Inst
Help Other People⁴	2.64	2.83	≤.05	2.53	2.64	n.s.	2.59	2.62	n.s.	<ul> <li>Aging more so for Inst</li> </ul>
Contact with Friends Scale <sup>1</sup>	5.14	5.79	n.s.	5.32	4.68	n.s.	N/A	N/A	N/A	+ MH/Inst - MH/Comm
Visiting friends⁵	.51	.49	n.s.	.58	.57	n.s.	N/A	N/A	N/A	+ MH/Inst - MH/Comm
Participation in Clubs⁵	.32	.05	≤.01	.36	.05	≤.05	N/A	N/A	N/A	None
Takes rides⁵ At least one person	.98	.68	≤.05	1.24	.64	≤.001	N/A	N/A	N/A	None
close	1.21	1.24	n.s.	1.15	1.39	≤.01	1.16	1.17	n.s.	None
Interest in family visiting <sup>7</sup>	1.59	1.70	n.s.	1.68	1.60	n.s.	N/A	N/A	N/A	+ Aging/Inst – Aging/Comm
Interest in Clubs <sup>7</sup> Interest in informal group	.53	.15	≤.001	.72	.19	≤.01	N/A	N/A	N/A	None
activities <sup>7</sup>	.94	1.01	n.s.	1.35	.98	≤.05	N/A	N/A	N/A	None
walks <sup>7</sup>	1.32	1.26	n.s.	1.83	1.50	≤.05	N/A	N/A	N/A	None
papers <sup>7</sup> Desires more contact	1.33	1.36	n.s.	1.44	1.48	n.s.	1.38	.95	≤.05	None
with friends <sup>8</sup>	5.14	5.79	n.s.	5.32	4.68	n.s.	.42	.07	≤.01	None

TABLE 4—Significant Impact on Integration into Community Life (Posttest Comparisons)

<sup>1</sup> Scale based on 0–3 score on each of 8 items, 24 = most positive.

 $^{2}4 = many, 1 = none.$ 

<sup>3</sup>7 = daily, 1 = never.

4 1 = not at all, 3 = a lot.

 $^{5}$  0 = several times a year or less, 2 = weekly or more.

 $^{6}$  1 = yes, 2 = no.

 $^{7}$  0 = not at all, 2 very interested.

<sup>8</sup>0 = no, 1 = yes.

friends. Contrary to the positive findings for the deinstitutionalized mental health subgroup, persons placed into domiciliary care homes from another community setting may be losing contact with former friends which, as of a year later, was not counterbalanced by increased contacts in the new setting. On the other hand, there were positive effects for the mental health group with respect to having a confidante (at least one "close" person).

The lesser religious attendance of the subgroup of aging and mental retardation Experimentals placed from an institution as compared with their Controls may be a reflection of expanded interest in other areas of activity and community involvement. Many Controls were still institutionalized at posttest, and the ready availability of religious services in institutions may have contributed to their greater religious attendance.

Interestingly, an area of negative impact for the aging sample involved the helping role. It is possible that the home providers may be overprotective in the care they are giving to their elderly physically impaired clients.

Another area needing exploration concerns why the program had a positive effect on interest in family visiting for the deinstitutionalized aging sample but a negative impact on clients from a community setting at pretest. Other study analyses (not shown) found that eligible institutional applicants with children nearby were more likely to be placed in a domiciliary care facility than those without children nearby. This suggests that, while not willing to have their elderly parent live with them, these children did act as advocates for deinstitutionalization, possibly increasing the subject's interest in continued contact. No such relationship appeared for those placed from a community setting. One may also wonder whether the lesser interest in family visiting of aging community Experimentals reflects the fact that the domiciliary provider and members of the household are considered a substitute family.

	Aging			м	ental Health		Men	ital Retardati	Comment re	
Outcome Variable by Data Source (Clinical Assessment or Self-Report)	Exp. N = 84 X	Control N = 86 X	p	Exp. N = 42 X	$\begin{array}{l} \text{Control} \\ \text{N} = 43 \\ \bar{\text{X}} \end{array}$	p	Exp. N = 43 X	$\begin{array}{l} \text{Control} \\ \text{N} = 42 \\ \bar{\text{X}} \end{array}$	p	observed differences (p ≤ .05) in Impact by Place of Residence at Pretest
			F	UNCTION	AL STATU	S:				
Clinical Assessments IADL (Community										
Survival Scale) <sup>1</sup> MR Staff Interview Data Subject Helps with	14.20	13.93	n.s.	14.86	15.04	n.s.	12.12	13.60	≤.05	None
Cooking <sup>2</sup> Subject Helps with	N/A	N/A	N/A	N/A	N/A	N/A	1.88	1.57	≤.01	None
Laundry <sup>2</sup> Self-Report	N/A	N/A	N/A	N/A	N/A	N/A	1.76	1.45	≤.05	None
Revised Rosow-Breslau Mobility Scale <sup>3</sup>	1.07	.87	n.s.	.31	.24	n.s.	.45	.17	≤.05	None
			PS	YCHOLOG	ICAL STAT	US:				
Personal Adjustment <sup>4</sup>	2.30	2.10	n.s.	2.76	3.00	n.s.	2.26	2.57	≤.05	+ MH/Inst MH/Comm
Emotional Health⁵ Self-Report	2.67	2.44	≤.05	2.83	2.36	≤.01	2.74	2.79	n.s.	None
How the future looks <sup>6</sup>	2.34	2.76	≤.05	2.35	2.45	n.s.	1.78	1.56	n.s.	+ MH/Inst - MH/Comm

 $^{1}$  5 = poor survival skills, 20 = good survival skills (5 items scored 1-4).

 $^{2}$  1 = yes, 2 = no.

 $^{3}$  2 = good, 4 = poor (2 items scored 1–2).

41 = no neurosis, 5 = psychotic.

<sup>5</sup> 1 = very depressed, 3 = even mood.
<sup>6</sup> 1 = very optimistic, 5 = very pessimistic.

#### Functional Status (Physical and Psychological)

Table 5 summarizes the findings on physical and psychological functioning. While the program had no significant effect on physical functioning for the aging and mental health clients, negative effects were observed for the mental retardation clients, suggesting that the domiciliary care homes may be unnecessarily promoting dependence for this population. Although there was some variability in the results by living arrangement at pretest for the mental health clients, positive effects on psychological status were observed for all three groups on one or more variables.\*\*

#### Impact on Reducing Institutional and Non-Community Days

As depicted in Table 6 and Figure 1, domiciliary care clients spent significantly fewer days in institutional settings during the impact period than did the Controls. The effects were more dramatic for the deinstitutionalized samples. There were substantial differences by group in the type of institutional days avoided: for the aging, nursing home utilization rates were lowered; for the mental health and mental retardation groups, mental health/mental retardation facility utilization rates were lowered. An attempt also was made to estimate the impact of the Domiciliary Care Program on reducing non-community days over time. The impact period was separated into three equal segments.

For the aging there was an initial effect during months 1– 3 and the same level of effect continued into months 4–6 and 7–9; Experimentals experienced about 1.2 days in the community for every one day spent in the community by Controls. For mental health and mental retardation samples the differences between Experimentals and Controls continued to escalate over time. For every one day that a mental

#### TABLE 6—Per Cent of Time Spent in a Non-Community Setting during Impact Period by Setting at Pretest

	Setting at Pretest						
Group	Institutional %	Community %					
Aging	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>						
Experimentals	22	10					
Controls	93	13					
Mental Health							
Experimentals	34	1					
Controls	76	15					
Mental Retardation							
Experimentals	40	3					
Controls	90	9					

<sup>\*\*</sup>It should be noted that, in the case of the Revised Zung Depression Scale, significant differences in the opposite direction were found between the Experimentals and Controls at pretest; i.e., the Controls were better off at pretest than were the Experimentals.





FIGURE 1—Average Number of Days In Hospital and Long-Term Care Settings

health sample Control spent in the community during months 1–3, the Experimentals spent 1.8 days. By months 7– 9, this ratio had increased to 2.3. For the mental retardation sample the ratio during months 1–3 was 1.1, and by months 7–9 the ratio increased to 1.5. Data from other analyses (not shown) indicate that there were more difficulties in placing mental health and mental retardation applicants than in placing aging applicants within a short period of time. Nevertheless, as time went on the program's success in placing the mental health and mental retardation applicant populations increased.

# Summary and Conclusions

In general, the effects were positive with respect to meeting the program's intended goals. They were most positive for the aging and mental health target groups. It is reasonable to hypothesize that many of the positive effects result from the client screening/case management procedures and the family-like nature of the domiciliary care homes. The family-like aspects of the environment may, however, be a factor in promoting excess dependent behavior on the part of some clients. If so, this would lead to a recommendation that provider training efforts focus more on promoting independence.

While the program was clearly a success with respect to deinstitutionalization, its effects were less impressive for clients entering the program from a community setting. Clinical studies have suggested that up to 60 per cent of the individuals who could be potentially deflected from entering a nursing home or similar facility would be appropriate for domiciliary care placement.<sup>11,12</sup> Clearly, the Pennsylvania Domiciliary intake from a community setting did not include many of these persons. Had the intake procedures concen-

trated more on clients about to enter a long-term care facility, the program might have had greater impact on preventing institutionalization.

The Domiciliary Care Program can be considered an important option in long-term care, particularly as a workable, less restrictive setting for eligible clients currently institutionalized in a long-term care facility. As will be seen in the companion article, <sup>10</sup> it is an economic option for deinstitutionalization as well.

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#### ACKNOWLEDGMENT

Findings reported are from a large scale evaluation study funded by Region III of the US Department of Health, Education, and Welfare (now the US Department of Health and Human Services), Contract #130-76-12, and carried out by the Department of Social Gerontological Research of the Hebrew Rehabilitation Center for Aged (HRCA), Boston, Massachusetts, with the collaboration of the Pennsylvania Central Office of the Domiciliary Care Program.