Evaluating service coordination in Ohio

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Ohio Long-Term Care Research Project

EVALUATING SERVICE COORDINATION IN OHIO

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Executive Summary

As older residents of government-assisted senior housing developments age in place, they face increasing difficulties with health, daily activities, socializing, and community participation. Because of their limited resources and inadequate community supports, they often lack the services they need to remain independent. Linking services with such housing is a promising strategy to offer non-institutional but supportive housing for low-income older people. Service coordination (SC) is often part of this strategy. Service coordinators help residents to learn about and obtain existing services, organize new services, and arrange building events. More and more senior housing developments have added SC to their management functions. Yet, despite identifying it as a key element of effective housing and services programs, the housing-with-services field has made little progress in specifying SC's desired outcomes or documenting its actual outcomes.

The goal of this study was to develop a preliminary framework for evaluating SC outcomes. Focusing on Ohio -- where relationships are good between the housing and aging networks and where SC has flourished -- the author interviewed key informants, tested evaluation protocol elements, and developed pertinent policy recommendations.

Informants suggested that coordinators help residents to age in place better, and possibly longer; prevent crises; improve community well-being in the development; and improve property managers' ability to manage the property. The report recommends support for expanding SC in senior housing and other settings with large numbers of older people. In addition, it proposes a multi-year, national study to assess SC outcomes, using a three-part assessment strategy based on (1) informants' indications of outcomes that may be attributable to SC <u>and</u> possible to track; (2) consideration of the debates about outcomes research; and (3) outcomes that may interest potential SC funders and supporters (i.e., health care insurers, housing owners, and property management companies). The strategy includes revised service coordinator and manager recordkeeping; interviews and other research conducted with residents and staff by outside evaluators; and merging Medicare and Medicaid records with other on-site information.

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Background

As older residents of government-assisted senior housing developments have aged in place, they have begun to face increasing difficulties with health, daily activities, socializing, and community participation. Because these residents are often older, more isolated, poorer, and frailer than their counterparts in other settings, they may be especially vulnerable to personal risks and unnecessary or premature institutionalization.

Linking services with publicly assisted senior housing is a promising strategy to offer non-institutional but supportive housing for low-income older people.

Research and experience suggest that accessible environments, well-functioning communities, and effective links to health and supportive services help residents to maintain social supports; comply with recommended treatment regimens; extend health and functional independence; and prevent or temper health crises (such as falls and other accidents) -- in short, to age in place safely and with dignity, as is usually their preference (see, e.g., Pynoos 1997; Milbank Memorial Fund 1997; Lanspery & Callahan 1994; Manton et al. 1993; Berg & Cassells 1990). Moreover, the economies of scale in senior housing may minimize expenses and maximize efficiency with respect to providing and monitoring health care, supportive services, and social activities; promoting health and functional independence; and preventing disability. Thus, linking services with publicly assisted senior housing is a promising strategy to offer non-institutional but supportive housing for low-income older people.

Because of these needs and opportunities, four approaches to delivering services in settings with critical masses of older people have evolved:

- A fragmented or "patchwork" approach describes the common situation in which consumers, families, neighbors, housing managers, and local agencies piece together services as best they can.

- Service clustering (or cluster care), usually involving supportive services[1], appears to improve efficiency and flexibility and keep costs low in delivering services to older people living in senior housing or naturally occurring retirement communities (NORCs[2]) (Balinsky & LaPolla 1997; Feldman et al. 1996).

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[1] Typically, home care workers are assigned for a predetermined number of hours (often with two-, or even four-, hour minimums) to individual consumers, without considering geography or setting. Services clustered in senior housing or NORCs decrease the minimums and increase flexibility. For example, one worker may help four people get up and dressed, for 30 minutes each; then do laundry for three people at once; then shop for two people at the same time.

[2] NORCs are buildings or neighborhoods in which a disproportionate number of residents are age 60 or over.

- On-site service coordination, usually carried out by a property management company or social service agency staff, serves all residents rather than providing case management for the few who are most frail. The coordinator helps residents learn about and obtain existing services, organize new services, and arrange building events.

- On-site nursing services are usually provided by a nursing professional assigned regularly to a site, employed by the site, a health clinic, a visiting nurse service, or other entity. These nurses may serve as gatekeepers, direct service providers, or both, often depending on the financing arrangements.

Two or more of these approaches often coexist, depending on the service, the provider, the financing source, and the resident. In particular, however, more and more senior housing developments have added service coordination (SC) to their management functions. The U.S. Department of Housing and Urban Development (HUD) has provided grants to support SC and has permitted developments to use their own resources to hire service coordinators. Other efforts encouraging supportive housing, often with SC as the key element, include the HUD Congregate Housing Services Program, state congregate housing programs, state agency on aging initiatives, and state housing finance agency programs.

This report focuses on the multifaceted role of service coordinators. Coordinators function as community organizers, educators, advocates, service brokers, marketers, care managers, quality assurance directors, mediators, support group facilitators, counselors, and direct service providers -- sometimes all on the same day. Many even operate as entrepreneurs, finding creative "market" solutions to residents' concerns.

Residents and managers who have experienced SC often say "we don't know what we'd do without it."

Observers have identified SC as a key element of effective housing and services programs. Residents and managers who have experienced SC often say "we don't know what we'd do without it." However, other than saying that SC is intended to help residents to age in place, the housing-with-services field has neither specified SC's hoped-for outcomes nor documented its actual outcomes. No one has conducted a major impact evaluation, and only one significant process evaluation has been conducted (U.S. Department of HUD 1996a). The latter, while a useful starting point and the most thorough assessment of the HUD SC program, is limited by its lack of attention to outcomes and its focus on whether the program "worked" according to HUD's original plan. The aims of other studies have been either broader (i.e., linking housing and services) or narrower (i.e., limited aspects of the SC program or the service coordinator's role).

Although no one has undertaken a significant research synthesis concerning housing and services linkages, relevant

research includes:

- Issue overviews and documentation of resident demographics and service needs (for example, Holshouser 1988, NCSHA/NASUA 1987, and Lawton et al. 1985).

- Case studies illustrating different solutions to problems in linking housing, health, and home care (Milbank Memorial Fund 1997; Pynoos et al. 1994).

- Program evaluations and cost analyses (for example, HUD 1996a, 1996b; Scanlon 1994; Heumann 1991; Sherwood et al. 1985).

- Studies identifying key elements in the service coordinator's role, analyzing service usage, or evaluating the operations of selected programs (Lanspery 1997; Schulman 1996; Holland et al. 1995; Lanspery 1995a, 1995b; Scanlon 1994; Sheehan 1993).

- Policy analyses attempting to bridge housing, health, and long-term care (for example, Pynoos 1997, 1990; Newman 1985; Struyk et al. 1989).

Without systematically assessing changes and outcomes, many of these studies hint at possible associations between housing and services programs and positive effects for individuals, neighborhoods/communities, and systems. The following list summarizes the outcomes most frequently mentioned:

- *Reducing* the use of police, fire, ambulance, emergency room, and hospital services; the use of in-room pull cords; apartment turnover; the number and nature of complaints and disputes; the number of threatened or actual evictions; and the rate of or avoidable trauma of residents' moves.

- *Improving* resident and community well-being (for example, amount of resident activity, social interaction, morale, satisfaction, perception of locus of control, attachment to community, informal supports, self-reported health and functional status, formal links to community agencies, family involvement, and community health and interaction).

OBJECTIVES AND RATIONALE

This report builds on prior research to gain a fuller understanding of the service coordinator's role and to develop a preliminary framework for evaluating SC outcomes. The project has three specific objectives:

- To interview informants concerning SC in senior housing in Ohio.

- To develop and test protocols to evaluate SC's effectiveness.

- To develop recommendations for Ohio policymakers concerning SC in Ohio senior housing in the context of health and long-term care policy.

Ohio was chosen for this study because it is one of only a few states in which SC has spread widely throughout the aging, state housing finance agency, and nonprofit housing networks. It is thus a particularly fruitful site for building on the research

conducted to date and for developing SC evaluation protocols. Learning more about SC's impacts may help Ohio policymakers and professionals in housing, health care (including managed care), and long-term care/supportive services foster more effective linkages between housing and services. Ohio state agencies, property owners, and property managers have spent substantial time planning, implementing, and refining SC, have supported SC financially, and promote SC through policies (such as the Ohio Department of Development's requiring facilities funded through tax credits to include SC). Additional information will help them to determine future policy, research, and practice directions. The findings may also contribute to the general body of knowledge about helping older Ohioans to age in place well, safely, and in the most economical manner.

Methods

Study components included a meeting with key Ohio informants to discuss the study; interviews with coordinators, managers, and residents; a survey of participants at an Ohio SC conference; and mailing proposed evaluation protocols to informants for review. Prior SC research as described in the previous section provided additional sources of information.

Key informant meeting. A meeting was held in April 1997 with key Ohio informants who have broad experience with SC, housing, and community services.

Participants were the authors; Janice Monks, National Church Residences Director of Housing Social Services; Robert Murray, Director of Housing and Public Relations for the Association of Ohio Philanthropic Homes, Housing, and Services for the Aging; Rod Pritchard, Central Ohio Area Agency on Aging; Lisa Applegate, Lutheran Social Services of Central Ohio's Director of Community Elder Care Services, who supervises service coordinators and performs SC; and Stephanie Lawrence, Scripps research assistant. Sandi Wagner, Ohio Housing Finance Agency's supportive services coordinator, participated in the meeting by phone and contributed other comments later. The meeting's purpose was to obtain general guidance about the possibilities for assessing SC outcomes and specific comments on site selection and the site interview guidelines.

Site interviews. Nine coordinators, nine managers, and twenty residents were interviewed in nine different Ohio senior housing developments. These developments included four sites in large urban areas (two in Cincinnati, one in Cleveland, one in Columbus); three in small cities or areas near large cities; and two in rural/small town areas. They ranged in size from 44 to 200 units, with an average of 133 units. The interviews (see Appendix A for guidelines) focused on informants' perceptions of SC outcomes and their thoughts on how to measure them. Table 1 summarizes informants' responses.

Conference participant survey. Larry Weiss, formerly with the Scripps Gerontology Center, surveyed 135 participants at an August 1997 Ohio SC

training conference co-sponsored by National Church Residences and the Association of Ohio Philanthropic Homes for the Aging. The survey (see Appendix B) asked about respondents' role, length of service, and funding source. Of the 135 respondents, 77 percent were service coordinators and 15 percent were managers or manager-service coordinators. Most respondents were experienced: 67 percent had spent more than 12 months and 18 percent more than four years on the job as of the survey date. An even higher percentage (72 percent) of the housing developments for which they worked had offered SC for more than 12 months (21 percent had offered it for more than four years). HUD was the funding source for 57 percent of the respondents; grants funded another 21 percent.

The survey asked about respondents' perceptions of SC's impact on the following resident outcomes:

- acute care/hospital use
- nursing home placement
- emergency room use
- evictions
- relocation
- use of assistive devices
- access to services
- number of incident reports
- resident relations

The survey asked respondents to: (1) rank each outcome according to the strength of SC's impact on it, with "1" reflecting the strongest perceived impact; (2) describe whether SC increased or decreased each outcome; and (3) state whether information about the outcome was currently available in the records.

Informant review of proposed protocols. The proposed protocols (Appendix C) and an earlier version of this paper were sent to all informants in December 1997. A cover memo requested their review of, and comments and suggestions on, the materials.

Findings

Key informant meeting. The discussion with the key informants centered on the approach to assessing outcomes and the draft interview guidelines. The key informants also recommended housing developments at which to conduct site interviews.

These informants were uniformly enthusiastic about SC. They reported experiencing and observing SC's positive effects on the outcomes listed in the previous section. In particular, they stressed SC's influence on:

- individual residents, especially through encouraging acceptance and use of needed supportive services

- the resident community, through facilitating more social interaction, more informal supports, and a sense of community

- property managers, by relieving managers' stress and burden, and creating a more positive atmosphere.

According to this group, the coordinator-property manager relationship

and the coordinator's longevity and stability influence the success of any SC program, whatever its form (e.g., some property management companies hire a staff member as a coordinator; others contract with a social service agency for SC). The key informants also asserted that SC helps residents with dementia, perhaps more than any other group of residents, to age in place. (They realized that this would be difficult to measure.)

The consensus of the key informants was that both existing records and new data would be necessary to attempt to measure SC outcomes.

The informants also discussed how to obtain information about SC and residents. They were particularly interested in health care use, reasoning that if the data show that SC reduces health care costs, through reduced utilization or utilization of less expensive services, health care organizations may be willing to finance it. The group acknowledged the difficulty of obtaining such information, noting that records are typically found in several locations. Residents commonly have health and supportive service records at a home care agency, a visiting nurse agency, two or more physicians' offices, the local hospital, and two or more pharmacies. The group suggested the following possible sources of information: Medicare records; Medicaid records; the housing development's recertification[3] data;

the development's other records; the National Aging Programs Information System, a new database tracking services funded through Title III of the Older Americans Act; and records from Ohio's Medicaid home care program, PASSPORT. In addition, findings from resident surveys and assessments conducted at some sites before hiring a coordinator could provide useful baseline information. Each of these possibilities has merit. On the other hand, no one source is complete or available for every resident, the files vary too much to merge, and the housing developments' records -- usually neither computerized nor sorted by resident -- may be difficult, if not impossible, to retrieve for assessing SC. Moreover, the ways the different sources measure service use, costs, and other information are non-standardized. The consensus of the key informants was that both existing records and new data would be necessary to attempt to measure SC outcomes.

The informants believe that SC improves residents' lives, health, and attitudes, and the building atmosphere; helps residents to age in place longer; allows managers to manage the property; and mitigates or reduces evictions or relocation to nursing facilities.

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[3] Property managers in HUD housing review residents' financial information annually to "recertify" their eligibility for subsidized housing. The managers collect health care cost information, including physician,

hospital, and prescription drug costs. The figure merely totals all costs, however, providing no health care utilization detail and no information at all about supportive service utilization or other information of interest.

Site interviews. Like the key informants, site informants -- managers, service coordinators, and residents -- described SC enthusiastically. As the research suggests, participants report that coordinators function as community organizers, educators, advocates, service brokers, marketers, care managers, quality assurance directors, mediators, support group facilitators, counselors, and direct service providers. The informants believe that SC improves residents' lives, health, and attitudes, and the building atmosphere; helps residents to age in place longer; allows managers to manage the property; and mitigates or reduces evictions or relocation to nursing facilities.

Unfortunately, the site informants found it difficult to articulate measurable outcomes or suggest methods of obtaining the information needed to define and assess outcomes. Such information was often either unavailable, incomplete, or difficult and time-consuming to retrieve. Moreover, different sites collect different information. Many coordinators and managers were hesitant about committing to recording additional information, noting that they were already strapped for time in part because of paperwork. Table 1 summarizes site interview findings concerning SC outcomes and the availability of information that might help to document those outcomes.

TABLE 1
SITE INFORMANTS' REPORTED SC OUTCOMES AND INFORMATION AVAILABILITY[4]

Development Profile[5]	Outcomes Cited[6]	Info available[7]
Urban 56 units PT SC SC on site since 9/96	-Res. AIP longer -Prevents crises -Transitions (admission, going to & from hosp. & NHs, eviction) are smoother	-Hosp. & ER use info will be available soon
Small town 108 units FT SC On site since 1993	-Res. use more services, AIP longer, "squabble less," use hospital more appropriately (more often for some, less for others) -Fewer inappropriate NH placements (though move is generally delayed, not prevented) -More activities, res. volunteers, assistive devices, community involvement	-Info incomplete[8] on ER, hosp., complaints, disputes, MD visits; complete on NH placement, major building events, & use of assistive devices
Urban 200 units FT SC On site since 1994	-Res. & mgrs. perceive more power to change events & relationships; atmosphere "calmer" -Addresses concerns, reduces minor complaints, relieves families' concerns; improves res. basic skills (e.g., literacy) -Res. AIP longer, use more in-home svcs, hospice; have more service knowledge, self-care ability -More evictions, but smoother transitions (SC explains alternatives & consequences)	-Info incomplete on hosp., ER, 911 use, falls, minor complaints, crisis prevention; complete on number & type of building activities & assistive devices
Small town - rural 44 units PT SC SC on site since 10/96	-Res. discuss svcs. & needs ("there's someone with a closed door"); are pleased not to "burden" mgr.; help each other more -Transitions (admissions, evictions, NH, hosp.) are smoother; early intervention makes problems more manageable -Families are more involved -"This building was good before, now it's even better"	-Info incomplete on ER, hosp., complaints, disputes -Activities info available -Recertifications record out-of-pocket health care expenditures

[4] Abbreviations: mgr. = manager; res. = resident; FT = full time (35+ hrs); PT = part time; SC = service coordinator; NH = nursing home; Hosp. = hospital; ER = emergency room; AIP = Age in Place; Svc. = Service

[5] "Development Profile": setting, # of units, current SC's FT or PT status, and history of on-site SC presence.

[6] "Outcomes Cited" includes effects of SC mentioned by SC, mgr., res., or other informants.

[7] "Info Available" reports SC and mgr. comments on obtaining relevant info from current records.

[8] "Complete" info = useful in evaluating outcomes and reasonably easy to obtain; "incomplete" = harder to obtain, insufficient for outcome analysis, or both.

Suburban 199 units FT SC SC on site since 1993 NOTE: High % of res. with mental illness diagnoses	-Improves res. independent living skills, knowledge of svcs., & perception of abilities -Reduces evictions, housekeeping issues, & emergency psychiatric services use; hosp., NH discharge res. more quickly (social workers know setting is supportive) -Property is managed better: "SC allows mgr. time to focus on management"	-Info incomplete on ER, hosp., MD, activities; complete on unit turnover -- but causes, significance, & costs not recorded -IDEAS: (1) Study applications: how many res. moved from higher levels of care? (2) Study pre- & post -SC changes in housekeeping & other facets of annual apt. inspections.
Urban 120 units FT SC SC on site since 5/95	-Improves svc. access for res. with mental illness; relationships with svc. providers; res. quality of life; confidentiality protection -Increases number of res. volunteers, use of assistive devices, res. use of svcs. -Decreases ER use, evictions, & NH placement slightly; no change in hosp. use -Atmosphere "brighter," "more tolerant"; res. more secure, involved; SC "takes a load off" mgr., presence adds to market appeal	-Info on use of ER, hosp., NH, & assistive devices available, but would have to be compiled since in individual files
Small urban area 120 units PT SC SC on site since 10/94	-Res. AIP longer; are more confident, at ease; have better access to svcs & entitlements -More eviction <u>warnings</u> (used to influence res. behavior); no change in number of evictions -Helps mgr. manage: "it's taken 40% of the load off me"	-Because SC time is limited, documentation is minimal IDEA: Survey res. door-to-door or by phone
Suburban 150 units FT SC FT on site since 3/97; PT for prior 12 yrs.	-Res. AIP longer, better; take better advantage of svcs & entitlements; volunteer more; use assistive devices & modify apartments more; feel more secure; are no longer "afraid to ask for help"; relationships with svc. providers better; more volunteers coming to building -ER use about the same: SC encourages res. to use it if they fall, etc.; evictions may have decreased; health care use has either increased or improved in unknown ways	-Info fairly complete on use of hosp., svcs., NH, assistive devices, ER/911, modifications, volunteers -Incident reports track some crises (e.g., falls) - IDEAS: Ask res. in a letter how SC has helped. Maybe less reliable than a survey, but survey may cause res. to fear losing SC
Urban 197 units PT SC SC on site since 1994	-Res. AIP longer, use more services, are better informed, more able to handle paperwork -Mgr. has lighter load -Buildings with SC "are better off"	-Info fairly complete on evictions, turnover, NH info available; other info (e.g., ER/911 & activities) available "only if reported"

Conference participant survey. Table 2 details responses to the survey of conference participants. Unfortunately, many respondents did not answer or only partially answered the survey questions. For all nine outcomes, 43 - 50 percent of respondents did not say whether information was available. For six of the nine outcomes, 15 - 21 percent of respondents did not assign a rank and 38 - 51 percent left blank the direction of the impact. The three exceptions were as follows:

- Use of assistive devices: Forty-five percent of respondents reported high SC impact (rank 1 - 3), while 30 percent reported moderate (rank 4 - 6). Only 12 percent did not rank impact. Sixty-one percent said that SC had increased the use of assistive devices; 35 percent did not describe a direction. Thirty-four percent said that information about assistive devices was available in the records.

- Access to services: 91 percent said that SC's impact was high. Seventy-three percent said that SC had increased residents' access to services; 26 percent did not assign a direction.

- Resident relations: Seventy percent reported high and 20 percent moderate SC impact. Sixty-nine percent said SC had improved resident relations (30 percent did not assign a direction).

For these three outcomes, increases would likely be considered positive by most observers. For the six for which responses are more mixed, however (evictions, acute care/hospitalization use, nursing home placement, emergency room use, relocation, and number of incident reports), an increase OR a decrease could be considered positive, depending on the situation. The findings also underscore the on-site interview findings suggesting that information needed for a thorough study of outcomes is not widely or easily available.

Additionally, 65 of the respondents working in senior housing wrote 141 comments. Table 3 displays the categories of their comments and the number of times each was mentioned.

Informant review of proposed protocols. None of the key informants or site informants responded to the request to review an earlier version of this report and the proposed evaluation protocols. Phone calls reached four of them, who said they did not have time to review them thoroughly. Two commented that the list of outcomes to assess looked complete, but that collecting sufficient, reliable data might be expensive and difficult, if not impossible.

TABLE 2
PERCEIVED SERVICE COORDINATION IMPACTS

Outcomes	Impact Rank[9]				Impact Direction			Info Availability			
	Hi	*Med*	*Low*	*NA[10]*	*Up*	*Down*	*NA*	*Yes*	*No*	*DK*	*NA*
Acute care-Hosp. Use	*20%*	*30%*	*32%*	*18%*	*24%*	*32%*	*44%*	*23%*	*16%*	*15%*	*47%*
NH Placement	*36%*	*30%*	*18%*	*16%*	*19%*	*43%*	*38%*	*31%*	*8%*	*13%*	*47%*
E.R. Use	*21%*	*36%*	*27%*	*15%*	*20%*	*36%*	*44%*	*18%*	*19%*	*21%*	*43%*
Evictions	*14%*	*19%*	*47%*	*19%*	*7%*	*41%*	*51%*	*32%*	*6%*	*12%*	*50%*
Relocation	*20%*	*31%*	*34%*	*15%*	*20%*	*30%*	*50%*	*32%*	*7%*	*12%*	*49%*
Use of Assistive Devices	*45%*	*30%*	*13%*	*12%*	*61%*	*4%*	*35%*	*34%*	*8%*	*11%*	*47%*
Access to Services	*91%*	*2%*	*1%*	*5%*	*73%*	*1%*	*26%*	*42%*	*6%*	*10%*	*42%*
# of Incident Reports	*18%*	*19%*	*41%*	*21%*	*16%*	*36%*	*48%*	*30%*	*11%*	*11%*	*48%*
Resident Relations	*70%*	*20%*	*4%*	*6%*	*69%*	*1%*	*30%*	*27%*	*16%*	*10%*	*47%*

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[9] Respondents ranked impact from 1=greatest to 9=least. "HI" combines rankings 1-3; "MED" 4-6; and "LO" 7-9.

[10] NA=Not answered

TABLE 3
CONFERENCE PARTICIPANTS' COMMENTS

Categories of comments	Number
Increase or improve referrals, use or types of services; amount, clarity, & usefulness of information; accommodation of residents with disabilities; use of volunteers	42 (30%)
Increase education, wellness, & social activities -- e.g., health education & promotion, exercise, screening, computer learning, intergenerational programs, opportunities for residents to volunteer	20 (14%)
Improve resident security & sense of security: someone to listen or to advocate with management or service providers; building, apartment, or neighborhood safety & improvements	17 (12%)
Improve quality of life (QOL) of mgr, other staff: reduce burden, educate & inform	15 (11%)
Improve discretionary income (benefits, entitlements, discounts); increase rent payments, funds for supp services, etc.; improve financial mgt (e.g., assistance with checkbook, insurance counseling)	12 (9%)
Increase res. empowerment (res. choice, organizations, leadership)	10 (7%)
Decrease use of unnecessary or emergency services, high tech; reduce falls, injuries, institutionalization, other crises	10 (7%)
Improve QOL for res. in ways not incl. in other categories -- e.g., soc. skills, reduced isolation	8 (6%)
Improve relations with families (support groups, better relations with mgt.)	7 (5%)

Assessing Service Coordination Outcomes: Obstacles and Possibilities

Obstacles specific to assessing SC outcomes. The study began with the assumption that many obstacles exist to evaluating the impact of SC. The literature and interviews confirmed these assumptions. One of the most important obstacles is the difficulty, experienced by our informants and others, in identifying measurable outcomes, although they were universally enthusiastic about SC. For example, manager comments such as "her job is a must" and "she can talk one on one with residents about things the managers don't have time for and knowledge about" do not articulate outcomes, though they reflect a perception that coordinators meet important needs. The potentially measurable outcomes they did identify varied from one site to another.

Based on the interviews and other research, we have developed the following list of obstacles that will confound efforts to disentangle SC's influence from other influences on outcomes:

- The great variety of tasks coordinators perform

- The difficulty in measuring many SC outcomes claimed by informants,

such as "improved resident satisfaction" or "improved quality of life"

- The fact that few developments with SC kept records before hiring the coordinator (reducing the possibility of "before and after" comparisons)

- The lengthy period required for the coordinator to build trust with residents (and sometimes with managers)

- Wide variation among sites in:

  - development size, location, and design

  - financing arrangements

  - owner characteristics

  - resident characteristics (e.g., income, age, frailty, literacy, cultural diversity, extent of informal supports)

  - the nature of the resident "community"

  - the extent of urgent survival problems such as serious safety issues or lack of food

  - amount, type, and accessibility of data collected

  - nature and quality of local health and supportive services, including transportation and in-home services (the impact of SC

may be quite different in towns with richer than in towns with poorer service networks)

- relationship between the coordinator and the manager[11]

- coordinator's qualifications, training, weekly work hours, and length of time on the job

- nature of on-site management (e.g., on-site or off-site, live-in or live-out, weekly work hours, training, and experience).

A further serious problem is that data are currently unavailable and difficult to obtain. Both the literature and this study's findings suggest that residents, managers, and coordinators see senior housing as "independent housing." Senior housing developments, even supportive ones, are not run according to a medical model. Residents are not "patients." They are responsible for their own health care and supportive service arrangements. They have every right to refuse to tell coordinators or managers about their service use. Coordinators and managers do not have automatic access to information about residents other than the information required to determine eligibility for housing. When they do have relevant information, it is often scattered: some is available through

coordinators' files, some through managers' files (i.e., individual records and incident reports). The quality, format, and completeness of the information also vary. Even managers who keep careful records do not necessarily have all the information of interest -- e.g., an emergency call that occurs when the manager is not working may not be recorded. As one coordinator said, "we have pieces of much of this information, but only in cases in which we've been involved."

As noted earlier, residents also obtain services from different sources, and may or may not use the coordinator's services to do so. This clouds the issues of responsibility for and accuracy of service utilization and other records. Information may be spread around the development and among physicians' offices or clinics, homemaker or home health agencies, senior centers, councils on aging, adult day health programs, and other organizations. At the developments, managers and coordinators would have to spend considerable time extracting information from files, or residents would have to give permission for outside researchers to do so. Housing eligibility recertifications show health care expenditures; but, as a lump sum, this figure is not useful for our purposes. Some health and supportive service providers could provide limited utilization information, if clients' confidentiality is protected; however, they usually track only their own agency's services, and cannot often sort information by address, which would be necessary to distinguish a housing resident from other clients. Obtaining information about health care and supportive service use through resident interviews is possible. However, this approach is time-consuming (and therefore

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[11] Our interviews overwhelmingly suggest that the manager's effect is substantial. A good manager, and a good coordinator-manager relationship, may well be necessary for a coordinator to "succeed," no matter what other factors are operating and how "success" is defined.

expensive) and self-reports of health care and supportive service use are considered unreliable. Examining residents' Medicare and Medicaid files[12] is the most accurate way to determine health care utilization, but this approach presents its own difficulties: it requires residents' permission; the information is only available after a long waiting period; and not every resident is eligible for Medicaid.

Obstacles to assessing long-term care outcomes. Besides the difficulties related to evaluating SC outcomes specifically, formidable obstacles exist to measuring long-term care outcomes generally. Many analysts suggest that current methods of assessing and examining needs, outcomes, and the links between them are inadequate and simplistic, often confounding cause and effect and ignoring important considerations. Although this report cannot present a comprehensive discussion of these issues, the following highlights some key points.

Many researchers believe that simple measurements of needs for assistance with activities of daily living (ADLs) and instrumental activities of daily living (IADLs)[13] do not reflect the complexity of disability. For example, ADL needs are often automatically assumed to make a person

"more disabled" than do IADL needs. This assumption is debatable. The strongest exception may be the IADL of medication management: people who need and do not receive help with medications are more likely to risk worsening health, hospitalization, functional decline, institutionalization, and other negative outcomes than people who are otherwise functional but need assistance with bathing. In addition, although many assessments simply "count" ADL needs, not all needs are equal; a need for assistance with dressing is less critical than a need for toileting assistance. Finally, ADL and IADL counts ignore or underestimate other factors that challenge people living alone in the community, such as poor memory, depression, visual or hearing impairments, and inability to analyze situations and take needed action (for example, to deal with a power outage or a fire alarm).

Similarly, simply "counting" formal and informal supports does not reflect adequacy, quality, appropriateness, or reliability. For example, people living with others are assumed to have high levels of informal support, but this depends on the health, skill, and resources of the people with whom they live. Assessments also generally do not consider the depth of support: what will happen if the primary caregiver becomes unable to provide care due to illness, death, or other problems? Further, many assessments seem to make the unlikely assumption that formal supports are uniformly high- quality and reliable. The quality of support likely affects health care use, hospitalization, use of other services, institutionalization, worsening functional status, deteriorating health, and mortality.

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[12] Medicare records alone do not provide all health care data -- e.g., they exclude prescription drugs. For residents who are eligible for both Medicare and Medicaid, both types of data should probably be analyzed.

[13] ADLs typically include bathing, eating, dressing, transferring, and toileting. Sometimes mobility and continence are also included. IADLs generally include medication management, meal preparation, financial management, shopping, transportation, and use of the telephone.

Further, linking needs and support directly to outcomes does not capture the short-term consequences of inadequate care. Health conditions and functional status may worsen because needs are inadequately met, not because of the primary needs themselves -- for example, otherwise functional people with diabetes whose health and function decline because they cannot monitor blood glucose levels or recognize symptoms of low blood sugar, and have no one to help them do so. Similarly, people who cope with receiving insufficient mobility assistance by restricting their physical activity risk further deterioration. Such unnecessary deterioration may be the actual, immediate "cause" of hospitalization or institutionalization, yet the underlying need would not necessarily register in an ADL-IADL count.

These problems are exacerbated because outcomes research often has a narrow focus on institutionalization and a short time frame. A different approach would include subtler changes -- such as unnecessary health care use, hospitalization, functional deterioration (defined more broadly than the traditional model), and health complications -- over a longer period (measurable effects may take a long time to appear).

Finally, stakeholders may disagree about which outcomes are positive. The answer varies with the situation, and situations vary greatly. In one case, a positive outcome may be a slower than anticipated decline in an individual's health and functional levels; in another, institutionalization may be an optimal solution and a great improvement in an individual's quality of life; in a third, a

positive outcome is improved function thanks to appropriate rehabilitation and adequate supportive services. In senior housing, one development's decrease in evictions may be "good," because residents have obtained services that enable them to maintain the conditions of their leases; another development's increase in evictions may be "good," because it reflects improved management and reduces problems for other residents. One development's decrease in unit turnover may be "good" because prior high rates were due to lack of access to services; another's steady rate may be just as "good," because the age and frailty of newly admitted residents have increased. In one development, lower hospitalization rates may be "good" if residents' inadequate primary health care had previously led to preventable hospitalizations; in another, increasing rates may be "good" if residents had previously avoided needed hospitalizations and experienced unnecessary and expensive declines in health.

Possibilities in measuring SC outcomes. Disentangling the influence of coordinators amid all these factors may be difficult, if not impossible. Still, the literature, individual housing developments, and this study's informants suggest the following potentially measurable positive SC impacts:

• reducing apartment turnover

• reducing costs of apartment turnover

• reducing use of emergency services (police, fire, emergency room)

• reducing use of in-room pull cord

- reducing preventable hospitalizations or length of stay

- reducing number and nature of complaints and disputes

- reducing number of threatened or actual evictions

- increasing family involvement

- improving community well-being and the quality of residents' lives (measured through increased resident activity, resident interaction, satisfaction, morale, perception of internal locus of control, and attachment to community)

- improving health and functional status

- reducing rates of, or improving quality of, consumers' relocations

- enhancing informal supports.

Deciding which outcomes to evaluate is a challenge, not only for the reasons discussed above but also because no single audience for the evaluation exists. For example:

- If coordinators are shown to reduce unnecessary health care or hospital use, the health care "world" (such as managed care organizations and hospitals) may be a source of financial support for SC.

- If coordinators affect property managers and developments positively, the housing world (owners, housing management companies, and public housing authorities) may be a source of support. For example, coordinators' effects on residents' quality on life and on the health of the resident community may contribute to more satisfied residents, reduced apartment turnover, better apartment maintenance, fewer (or less serious) disputes between residents, higher manager morale, and improved overall management.

- If, on the other hand, coordinators increase residents' use of already overtaxed community-based support services, service providers and policymakers may conclude that institutionalization would be cheaper and better.

Ideally, to determine SC's impact, we would compare outcomes of sites with and without SC. However, if sites with SC have not been tracking, and would find it difficult to track, items of interest, sites without SC would likely find it impossible. Another strategy would be to track a number of sites with SC over a long period.

Recommendations

Given the scarcity of other housing and services options for lower-income older people, the low costs of adding SC, and the economies of scale possible in housing developments, the benefits of maintaining and expanding SC seem self-evident.

Based on the literature and on the study findings, for the short term, we recommend that Ohio policymakers continue to support and expand SC in senior housing, and possibly in other settings with large numbers of older people. The managers, coordinators, and residents interviewed for this study were extremely positive about SC in their developments. The anecdotes they related suggest that coordinators help residents to age in place better, and possibly longer; prevent crises; improve community well-being in the development; and improve managers' ability to manage the property. Given the scarcity of other housing and services options for lower-income older people, the low costs of adding SC, and the economies of scale possible in housing developments, the benefits of maintaining and expanding SC seem self-evident.

However, the challenges of measuring outcomes meaningfully and credibly call for a multi-year, national strategy, preferably coordinated by a partnership of interested parties representing researchers, policymakers, and practitioners in housing, health and long-term care, community-based services, community development, and other relevant fields. Despite the problems outlined earlier, we have developed an assessment strategy based on (1) informants' indications of outcomes that may be attributable to SC and possible to track; (2) consideration of the debates about outcomes research; and (3) outcomes that may interest potential SC funders and supporters (i.e., health care insurers and housing owners/management companies). The proposed strategy has three parts: revised service coordinator and manager recordkeeping; interviews and other research conducted with residents and staff by outside evaluators; and merging of Medicare and Medicaid records with other on-site information. (Additional qualitative research compiling and analyzing the "stories" of coordinators' interactions with residents would also be useful.) This research should take place over at least a three-year period. Appendix C elaborates on the following outline.

Revised coordinator and manager recordkeeping. The revised recordkeeping in the participating developments would include keeping track of:

- residents' hospitalizations

- residents' emergency room use

- actual or threatened evictions

- relocation to a higher level of care (e.g., nursing home, assisted living

facility, foster care, group home)

- use of assistive devices

- residents' participation in on-site activities

- residents' use of formal services

- cases of individuals who would likely move to a nursing home without availability of SC and supportive services

Ideally, the study would adapt participants' recordkeeping systems to include convenient ways to record this information usefully. For coordinators using the ROSES[14] system, for example, adding new boxes to resident records could help in compiling relevant statistics. A log might be required to include the qualitative case information, within or separate from the ROSES system.

Outside evaluators. Outside evaluators would conduct interviews with residents, on-site staff, community service providers, and the parties responsible for monitoring the housing development. They would also obtain information from managers' incident reports; annual inspection reports; residents' housing applications; service coordinators' files; and other records.

Medicare and Medicaid records. Medicare and Medicaid records contain the most accurate and complete health care utilization information for residents insured by one or both programs. To use these records in evaluating SC impacts would require a long-term study because of the time needed to obtain permission from individual residents and from the federal government to use these records; obtain the records (at which point they are slightly out of date); and merge the records. Since a longitudinal study is recommended anyway to address some outcomes research issues, use of Medicare and Medicaid records is also recommended.

Summary

Focusing on the role of SC in Ohio senior housing, this report first reviewed linking housing and services, emphasizing SC, and described the findings from interviews with key informants, managers, service coordinators, and residents. The study found enthusiastic support for SC but a mixed message concerning its specific outcomes and how to measure them. Prior research and the key and site informants provided the foundation for a discussion of obstacles to assessing long-term care outcomes generally and SC outcomes specifically. Based on this analysis, we proposed a three-pronged strategy for assessing SC outcomes. The author recommends continued support of SC as well as concerted efforts to learn more about its current and potential effects.

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[14] ROSES, the Residential and Optimal Services Entry System, is software for service coordinator recordkeeping. It was designed by Software One, Inc. (Columbus OH) in partnership with National Church Residences.

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Appendix A

**Site Interview Guidelines for
Coordinators, Managers,
and Residents**

INTERVIEW GUIDELINES

Process Evaluation of SC in Senior Housing in Ohio

The Plan:
- Interview manager.
- Interview service coordinator where applicable.
- Interview at least two individual residents or two small groups (2-3) of residents. Coordinator and/or manager will have to assist with this. As a backup plan, it may be possible to distribute interview questions in advance and schedule an open period in the community room when residents can discuss their responses with you.
- Obtain name and phone number of at least one service provider with whom coordinator and/or manager work regularly (examples: area agency on aging, local home health agency(ies), senior centers, transportation providers). Meet with provider on site, if that can be arranged, after interviews with coordinator and manager; or conduct a telephone interview after the on-site interviews.

Introduction to coordinators and managers: Our goal is to better understand how service coordination (SC) works in Ohio. In April, we are interviewing staff and residents at eight sites. In May and June, we will ask these participants to comment on and test recordkeeping forms that we develop based on the findings from the April interviews. We are trying to take the first steps toward documenting the impact of SC so that policy discussions about aging in place, and about whether or how to fund SC, can be carried out more intelligently.

Introduction to residents: We are conducting research in senior housing in Ohio. Our goal is to find out more about how the housing development staff helps residents to obtain services they need and want.

Introduction to service providers: Essentially the same as to coordinators and managers.

SERVICE COORDINATOR interview guidelines

How many hours per week do you work on site? (If not FT -- do you work at any other complexes?) How long have you worked here as a SC? Are you the first and only SC?

How many other staff work on-site (related or unrelated to your role)? Who are they and how many hours do they work?

What are your relationships and boundaries with these other staff -- especially the manager?

What is the "chain of command"? Who is your supervisor? To whom do you and the manager report?

What are the relationships and boundaries between the SC and the residents?

What are the relationships and boundaries between the SC and community service providers? To what extent do you interact with the local aging services network and the community in general? How well do you feel you are accessing local resources?

How, if at all, have these relationships (with manager, residents, community service providers) changed over time?

How does your program work? What do you spend most of your time doing?

With how many residents have you had significant contact as individuals? With how many as part of a group? With how many do you have contact regularly?

What services are residents using?

What are the differences between now and when SC started -- e.g., are residents using more services now? What, if any, service needs remain?

How would you describe the trust between you and the residents?

How did you achieve this? What kinds of activities are you undertaking to maintain or improve this level of trust?

Do you consider building a sense of community part of your job? If so, please describe your efforts in that area.

What are the three most important lessons you've learned as a service coordinator? What are your most important successes and strengths? In what areas would you like to change or improve on what you've done?

To what extent can your building accommodate very frail residents? Examples? Does SC help keep residents to age in place in senior housing longer? Examples?

Think of some of your most difficult situations. What could have made them better?

•   To what extent would specific changes in state or federal policies have helped (e.g., more flexibility in policies or reimbursements)?

•   To what extent would different local circumstances have helped? (e.g., different relationship with building ownership/management; different services available through service network; different relationships with local service providers; different atmosphere in building).

One of the goals of our study is to develop innovative ways to **measure the impact of service coordination** without burdening staff with paperwork. We are especially hoping (1) to prioritize possible areas of impact, making sure we incorporate the most common ones; and (2) to think of ways to assess changes in hard-to-measure areas, such as residents' sense of community or residents' quality of life. To this end, we would like to read a list of possible impacts of service coordination programs. The list is based on the experience of many sites with service coordination. We would like to ask you (1) whether your program might show such an impact and (2) whether information about the impact area is already on either the service coordinator's or manager's records at the site, through summary figures, individual resident files, incident reports, or other formal or informal records:

- residents' hospitalizations
- residents' use of emergency room
- number of times residents or staff dial 911 or residents report other emergencies (NOTE: if not clear, ask what type of emergency call system the complex has -- e.g., pull cords that alert staff or another system that goes straight to fire/police/ambulance?)
- unit turnover
- costs of unit turnover (redecorating, renovation)
- number of (and reasons for) evictions
- number of (and reasons for) eviction warnings
- number and seriousness of resident complaints and disputes
- residents' physician or other health care visits (e.g., clinic nurse)
- nursing home placement
- number of (possibly) preventable resident crises (falls, medication problems)
- number and type of building activities
- extent and nature of residents' involvement in outside community and vice versa
- number of assistive devices residents use
- number of building or unit modifications
- number of reasonable accommodations

Are there other areas in which housing developments with SC are better off than those without? Should evaluation instruments focus on them? How could impacts be measured?

MANAGER interview guidelines

NOTE: Questions marked *SC are only for sites <u>with</u> a service coordinator. Questions marked ** are only for sites <u>without</u> a coordinator. Other questions are for all sites.

How many hours per week do you work on site? Do you live on site? How long have you been working here?

*SC   Were you working here before the SC started? To what extent were you involved with

planning and hiring the SC? To what extent were you involved with orienting and/or training the SC? Describe your relationship with the SC when you and s/he began working together. Describe your current relationship.

**   One of the goals of our study is to develop innovative ways to **measure the impact of service coordination** without burdening staff with paperwork. We are especially hoping (1) to prioritize possible areas of impact, making sure we incorporate the most common ones; and (2) to think of ways to assess changes in hard-to-measure areas, such as residents' sense of community or residents' quality of life. To this end, we would like to read a list of possible impacts of service coordination programs. The list is based on the experience of many sites with service coordination. We would like to ask you (1) whether your program might show such an impact and (2) whether information about the impact area is already on either the service coordinator's or manager's records at the site, through summary figures, individual resident files, incident reports, or other formal or informal records:

• residents' hospitalizations
• residents' use of emergency room
• number of times residents or staff dial 911 or residents report other emergencies (NOTE: if not clear, ask what type of emergency call system the complex has -- e.g., pull cords that alert staff or another system that goes straight to fire/police/ambulance?)
• unit turnover
• costs of unit turnover (redecorating, renovation)
• number of (and reasons for) evictions
• number of (and reasons for) eviction warnings
• number and seriousness of resident complaints and disputes
• residents' physician or other health care visits (e.g., clinic nurse)
• nursing home placement
• number of (possibly) preventable resident crises (falls, medication problems)
• number and type of building activities
• extent and nature of residents' involvement in outside community and vice versa
• number of assistive devices residents use
• number of building or unit modifications
• number of reasonable accommodations

*SC   In your experience, what difference does service coordination make? Describe its impact on:

• the residents as individuals
• the residents as a group
• you
• families
• service providers in the community

To what extent can your building accommodate very frail residents? Examples? Does SC help keep residents to age in place in senior housing longer? Examples?

In addition to what we've already discussed, are there any other ways in which housing developments with SC are better off than those without?

Can you suggest innovative ways to measure the impact of service coordination without burdening staff with paperwork? We are especially hoping (1) to prioritize the possible areas of impact, making sure we hit those that are most likely in the most places; and (2) to think of ways to assess changes in hard-to-measure areas, such as residents' sense of community or residents' quality of life.

RESIDENTS

NOTE: Questions marked *SC are only for sites <u>with</u> a service coordinator. Questions marked ** are only for sites <u>without</u> a coordinator. Other questions are for all sites.

How long have you lived in this building? How does it rate as a place to live?

*SC   Do you know ----, the service coordinator in the building? What do you think of the job s/he is doing? What kinds of things does s/he help people with? Have you personally had much contact with him or her?

Do the people who live in this complex get along? Are there a lot of activities and social events where people get together? Is there an active residents' association?

*SC   In your opinion, has ---'s [the service coordinator's] presence made any difference to residents? What was life here like before the coordinator began work? How does it compare now?

What are the three most important problems facing residents in this complex?

*SC   Can --- [the service coordinator] help to solve these problems?

*SC   Do you know whether the service coordinator works for the company that manages this building or is under contract to provide services to residents? If so, does that matter to you -- would you prefer that he or she did or didn't do so? If you don't know, would it matter to you?

Appendix B

**Survey Distributed to Participants at
National Church Residences/Association of Ohio
Philanthropic Homes Conference, August 1997**

Service Coordinator Impact Study

1)   Your Name   _____
        Position   _____
        Organization   _____
        Address   _____
        Telephone#   _____

2)   Are you: Service Coordinator   _____
                   Manager   _____
                   Resident   _____
                   Service Provider   _____
                   Other _____   _____

3)   How long at above position? _____
        How long has your housing organization had Service Coordination? _____

4)   How is Service Coordination currently being funded?

        _____
        _____

5)   Please rank the following potential outcomes as to the impact that Service Coordination has had on the residents at your organization:
        (1 = the greatest impact; 9 = the least impact)

	Ranking	Which Direction	Is Information Available: (Yes, No, Don't Know)
Acute Care Hospitalization	_____	_____	_____
Nursing Home Placement	_____	_____	_____
Emergency Room Use	_____	_____	_____
Evictions	_____	_____	_____
Relocation	_____	_____	_____
Use of Assistive Devices	_____	_____	_____
Access to Services	_____	_____	_____
No. of Incident Reports	_____	_____	_____
Resident Relations	_____	_____	_____

6)   What have we missed? Other areas that Service Coordination has had an effect on at your housing organization that you think we should look at and could be easily collected AND would appeal to potential funders:

        _____
        _____

Appendix C

**Evaluating Service Coordination in Ohio
Data Collection Guidelines**

EVALUATING SERVICE COORDINATION IN OHIO
DATA COLLECTION GUIDELINES

Informants in this and other studies have suggested that coordinators affect the following factors. Keeping track of them over time should yield useful insights into the relationship between SC and these variables. Under this plan, managers and coordinators would summarize monthly:

Residents' hospitalizations
Admission and discharge dates; destination at discharge (e.g., return to apartment, discharge to nursing home); main reason(s) for hospitalization.

Emergency room use
Date of use, reason, and outcome (e.g., hospitalization, return to apartment)

Evictions
Oral and written eviction warnings and written notices: dates, reason(s), outcome.

Relocation to higher level of care (e.g., nursing home, assisted living facility, foster care, group home)
Dates of relocation, reasons, and outcome (e.g., return to apartment after rehabilitation)

Use of assistive devices
Number of residents coordinator or others help to obtain assistive devices (e.g., canes; kitchen gadgets that help those with arthritis to prepare food and clean up)

Residents' participation in on-site activities
Number of residents participating in various activities; number of times individuals participate in activities

Residents' use of formal services
Amount, type, and payment source for in-home services such as home health, homemaking, personal care

Cases of individuals who would likely move to a nursing home without availability of SC and supportive services
Describe resident's health and functional status, nursing facility eligibility, and service use. Discuss the service problems that existed and how they were solved. Follow case over time.

Ideally, the study would adapt participants' existing recordkeeping systems to include convenient ways to record this information usefully. For coordinators using the ROSES system, for example, adding new boxes to resident records could help in compiling relevant statistics. A

log might be required to include the qualitative case information, within or separate from the ROSES system. Funding may be required to help subsidize staff time required to complete the additional paperwork. Successful recordkeeping as outlined would also require a higher level of "intrusiveness" into residents' lives.

In addition, an independent evaluator would do the following:

• Code, compile, and examine managers' incident reports over a "look-back" period beginning before SC began as well as throughout the course of the study

• Compare results of annual inspection reports over the same periods

• Compile information from residents' housing applications concerning where they lived before moving to housing over the same periods

• Interview those responsible for monitoring the housing development concerning changes in management since the service coordinator began work

• Interview the two or three community service providers that are most extensively involved with residents in the development

• Interview a random sample of residents at the beginning and end of the study. Interviewers must use great caution to avoid causing residents concern that they are in danger of losing SC. The interviews would address residents' interactions with the coordinator, morale, life satisfaction, sense of security, sense of community, perception of locus of control, health and functional status, and health and supportive service utilization.

• Interview coordinators and managers at various points throughout the study