



U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy

IN-HOME SUPPORTIVE SERVICES FOR THE ELDERLY AND DISABLED:

A COMPARISON OF CLIENT-DIRECTED AND PROFESSIONAL MANAGEMENT MODELS OF SERVICE DELIVERY

NON-TECHNICAL SUMMARY REPORT

April 1999

Office of the Assistant Secretary for Planning and Evaluation

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This report was prepared under contract #HHS-100-94-0022 between HHS's DALTCP and the University of California, Los Angeles. For additional information about this subject, you can visit the DALTCP home page at http://aspe.hhs.gov/_/office_specific/daltcp.cfm or contact the office at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201. The e-mail address is: webmaster.DALTCP@hhs.gov. The Project Officer was Pamela Doty.

IN-HOME SUPPORTIVE SERVICES FOR THE ELDERLY AND DISABLED: A Comparison of Client-Directed and Professional Management Models of Service Delivery

Non-Technical Summary Report

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April 1999

Prepared for
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
Contract #HHS-100-94-0022

The opinions and views expressed in this report are those of the authors. They do not necessarily reflect the views of the Department of Health and Human Services, the contractor or any other funding organization.

This report is a non-technical summary of the findings and policy implications of a research study comparing alternative models of delivering in-home supportive services to the elderly and disabled. The full technical report: "Comparing Client-Directed and Agency Models for Providing Supportive Services at Home," Final Report under HHS Contract #100-94-0022, is authored by A.E. Benjamin (Principal Investigator), Ruth E. Mathias (Project Director) and Todd Franke, of the School of Public and Social Research, University of California, Los Angeles with the assistance of Linda Mills, Yeheskel Hansenfeld, Lisa Matras, Ellen Park (UCLA) and Susan Stoddard and Lewis Kraus (InfoUse, San Francisco, CA). DHHS Project Officer: Pamela Doty. Copies of the full technical report may be obtained from the US DHHS Office of Disability, Aging and Long-Term Care Policy, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201; fax 202-401-7733; email DALTCP@osaspe.dhhs.gov.

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EXECUTIVE SUMMARY

Elderly and younger persons with disabilities who require help from others to perform many of the most ordinary activities of daily living are said to require "long-term care." These services, when provided in the home or other non-institutional settings, may be termed **personal assistance services (PAS), home and community-based services (HCBS), or in-home supportive services (IHSS)**. This report presents the findings of a study comparing alternative approaches to delivering such services. The purpose of the study was to determine whether there are significant differences, on a wide range of outcome indicators, when publicly-funded supportive services for the elderly and disabled are provided through a **consumer-directed (CD)** as compared to a **professional management (PM)** model of service financing and delivery.

The defining characteristic of a **consumer-directed model (CDM)** of service delivery is that it allows persons with disabilities considerable choice and control over how supportive services are provided and by whom. In particular, a CDM allows public program clients to have an employer/employee relationship with their individual service providers, who are referred to by a variety of different terms such as **home care workers, in-home aides, personal assistants, or personal care attendants**. A fully developed CDM places virtually no restrictions with regard to clients' hiring decisions; that is, clients may employ anyone they choose, including family members. A CDM may make training opportunities for workers available, but does not limit client choice of workers by imposing training and credentialing requirements as conditions of employment. A CDM typically involves clients in the process of paying workers, at a minimum by having clients sign time-sheets, without having clients take on full employer responsibilities. The most common approach is for a program operating under a CDM to arrange for a fiscal services contractor to process time-sheets and paychecks and ensure that payments to client-directed workers do not exceed program authorized limits.

In contrast, a **professional management model (PMM)** requires that the individual workers who deliver services to clients be employed by organizations, typically home health or home care agencies, whose characteristics and structure are defined and regulated by licensing or other laws and by contractual arrangement with one or more public financing programs. As employers, the home care agencies and the professionals who run them assume responsibility for and authority over hiring and managing the front-line service providers. Agency methods of recruiting workers make it unlikely that clients will be related to or even previously acquainted with the workers assigned to service them, even when the possibility of an aide being assigned to work for a family member is not specifically banned (which it often is). Public programs reimburse agencies at negotiated rates which include a percentage for agency administrative overhead in addition to the direct costs of service provision. Agency overhead costs are intended to cover the management-related expenses of training, supervising, and scheduling workers as well as pay-rolling functions.

Proponents of each of these models of service delivery argue that client and worker outcomes are better under their preferred approach. That is, they believe that the same resource or benefit levels (e.g., number of service hours) allocated to clients with similar levels of disability and therefore similar service needs are likely to produce different results when delivered through a consumer-directed or professional management model or when clients in the CDM hire family members or others as their aides. Proponents of consumer-direction argue that the consumer-directed model is more likely to produce better outcomes because it offers consumers more choice and control. Proponents of the professional management model argue that this model is more likely to produce better outcomes because, in their view, professional supervision is necessary for quality assurance.

Accordingly, the purpose of the research was to find out whether these alternative modes of service delivery were more, less, or equally likely to bring about a variety of positive outcomes. These outcomes include greater client satisfaction with services, greater client empowerment (i.e., clients' sense that program services enable them to live more normal lives despite their disabilities), improved health status, greater reliability and continuity of service (i.e., lower frequency of worker absenteeism and turnover), greater ability to attract qualified workers, and higher job satisfaction for workers. The research also examined whether one or another of the service delivery models was more likely to produce negative outcomes such as more reported incidents of abuse, neglect, or mistreatment, a higher level of concern for safety among clients, more unmet needs (client reports that services are inadequate to meet their needs for assistance), or poor working conditions for home care workers.

In recent years, there has been a growing push for consumer-direction among client advocates, especially those who represent younger adults with disabilities. (DeJong, Batavia, and McKnew, 1992; Simon-Rusinowitz and Hofland, 1993). This movement has led policymakers at all levels of government to consider designing new programs based entirely on the CDM and/or to explore ways of incorporating an optional CDM into programs which currently use a PMM exclusively. (Nadash, Rosenberg, and Yatsco, 1999). Neither of the two models is new; examples of public programs organized along CDM or PMM lines have existed for many years (Litvak and Kennedy, 1991; Flanagan and Green, 1994; Cameron and Firman, 1995; Sabatino and Litvak, 1995; Flanagan and Green, 1997). Various advantages and disadvantages have long been claimed for each model by its proponents, but little systematic evidence has been available to judge the merits of these arguments (Doty, Kasper and Litvak, 1996; Feinberg and Whitlach, 1996; Feinberg and Whitlach, 1998). To begin to fill this knowledge gap, the U.S. Department of Health and Human Services funded the University of California at Los Angeles (UCLA) to compare outcomes of alternative service delivery models in the context of California's In-Home Supportive Services (IHSS) program. IHSS is one of the few state long-term care programs that provide client-directed as well as agency services to substantial numbers of clients, both older and younger, with mild, moderate, and severe disabilities resulting from a wide range of underlying medical conditions. Using California's IHSS as the research locus therefore permits a direct comparison of outcomes across the two models while controlling for

what would otherwise be confounding variations in eligibility, coverage, and payment rules between two or more programs within a state or across states. The design of the present study also benefitted from previous research on the quality of services provided under the IHSS program that sponsored by the state of California (Barnes and Sutherland, 1995).

The UCLA study compared the CDM and PMM on a range of client and worker-related outcomes, using a sophisticated sample design and multi-variate analyses to adjust for variations in clients' severity of disability and other differences in client characteristics so as to isolate these effects from those attributable to the alternative service delivery models. Although both models had positive outcomes overall, the study's principal finding is that clients in the CDM had more desirable outcomes than clients in the PMM within three broadly defined areas: satisfaction with services, empowerment, and quality of life. No significant differences were found in outcomes between the two models in two other areas: client safety and unmet needs. Altogether, the CDM had significantly better outcomes on six of fourteen specific outcome measures. On none of the fourteen measures was the PMM associated with significantly better outcomes.

The study also compared outcomes for CDM clients who hired family members as paid workers with those of clients who employed non-family members. No differences were found with respect to the frequency of reported unmet needs or on quality of life measures. However, clients who hired family members had more desirable outcomes on some measures in the areas of safety, satisfaction with services, and empowerment. Specifically, clients whose aides were family members reported a greater sense of security, having more choice about how their aides performed various tasks, a stronger preference for directing their aides, and a closer rapport with their aides.

With respect to home care workers, the study found significant differences between the two models in pay and benefits. Workers in the PMM received, on average, higher hourly wages and were also more likely to receive health and other benefits from their jobs than workers in the CDM. A significantly higher percentage of CDM as compared to PMM workers had jobs in addition to their IHSS work. However, workers in both models reported generally high levels of job satisfaction and there were no significant differences between CDM and PMM workers on these measures. Results were mixed on measures of stress and burden. CDM workers reported better relationships with their clients and greater acceptance of assertiveness on the part of clients. However, PMM workers reported more positive emotional states and also reported experiencing less concern about client safety. Some of these differences appear to be related to the frequency of family members as workers in the CDM because family providers in the CDM were found to be more likely than non-family providers to report having close relationships with clients and to be more concerned about client safety.

The main conclusion of the report is that, whereas both the consumer-directed and professional management models of delivering supportive services to the aged and disabled produce positive client outcomes overall, the consumer-directed model outperforms the professional management model on several key measures of client satisfaction, empowerment, and quality of life. Critics of consumer-directed models of service delivery have expressed concerns about client safety under this model and have generally taken the view that consumer-direction should be restricted to a minority of clients (primarily younger adults) who social workers judge to be capable of hiring, firing and giving direction to their workers. This study provides no evidence in support of restricting availability of the consumer-directed model. Critics have also questioned the appropriateness of allowing public program clients to hire family members as providers. This study's findings support the option of hiring family members as providers because the data indicate that, on average, family providers are more likely to provide a higher quality of service than unrelated workers.

I. BACKGROUND

A. Definition of "Supportive Services"

Many persons with disabilities require help to perform one or more common daily activities. The types of activities for which help is needed may include personal care tasks such as bathing, dressing, transferring from bed to chair, eating, and going to the toilet (referred to as Activities of Daily Living or ADLs) as well as assistance with other routine tasks necessary to maintain a home and take care of personal business, such as housekeeping, meal preparation, doing laundry, managing money, and making telephone calls (referred to as Instrumental Activities of Daily Living or IADLs). Such assistance is termed "long-term care," "personal assistance services," or, simply "supportive services." Although a majority of Americans who need supportive services rely exclusively on informal--i.e., unpaid--care from family members, friends, and relatives, a significant minority--primarily those with very severe disabilities and/or very limited access to informal support--must depend in whole or in part on paid helpers. Through Medicaid and other Federal/state programs, persons with disabilities, both those aged 65 and above and those who are younger, who meet eligibility criteria with respect to severity of disability and allowable income and assets, can receive supportive services financed with public monies.

A generation ago, eligibility for publicly funded supportive services typically required the client to be in a nursing home or similar institution. However, by the mid 1980s, publicly- financed home and community-based supportive services had become available in all states, although the size and scope of eligibility and coverage under these programs varies widely from state to state (Ladd et al., 1995). Under the Federal/state Medicaid program, states have considerable administrative discretion over how publicly-funded home and community-based long-term care services are provided and regulated.

B. The Consumer-Directed and Professional Management Models of Service Delivery

This report summarizes the finding of a comparative evaluation of two distinct philosophies and organizational models of service delivery: consumer direction and professional management. A consumer-directed model (CDM) permits clients to hire and fire, schedule, train, and supervise their own personal assistance services providers (usually termed "aides," "attendants," or "workers"). A full-fledged CDM imposes little or no restrictions on whom a client may hire to be his or her helper. In particular, clients in a full-fledged CDM are permitted to choose to employ persons already known to them: i.e., friends, neighbors, or family members. A CDM typically puts all of the responsibility for recruiting and selecting an aide on the individual client and any family or friends willing to assist. Occasionally, public programs may assist in identifying potential

candidates by providing a worker registry. Similarly, clients usually bear the responsibility for assuring that their aides know how to do the work and for training them if necessary. A CDM may make some forms of training available to clients and their workers, with public funding to cover training costs but does not require clients to use these resources. (Flanagan and Green, 1997). Although the public program limits how many hours of service will be reimbursed per client per month, clients are responsible for scheduling their workers and clients and workers are free to negotiate changes in the schedule. A full-fledged CDM also involves clients in the process of paying their workers (for example, by signing timesheets or paychecks) even though the actual wages are paid from public funds.

In contrast, a PMM program design requires that aides be employees of authorized home health or home care agencies. In this model, the agency hires workers according to criteria the agency establishes and the agency also determines which of its employees will be assigned to particular clients. Client choice among agencies is limited by the number of agencies authorized for reimbursement under the program in question which operate in the area where the client resides. Not infrequently, there is only one such agency. Within an agency, client choice of aides is generally restricted to "veto" power. That is, clients who are dissatisfied with a particular worker the agency sends may ask to have that worker replaced and the agency will generally honor such a request if it has a replacement worker available (although, strictly speaking, the agency is not required to do so). By the same token, agencies are free to shift employees from one client to another at will, although they may try to honor clients' requests to have the same workers on a regular basis. A PMM also puts the agency in charge of scheduling aides' hours of work and such scheduling is usually arranged to maximize efficiency or other goals. Agencies are free to determine whether or to what extent they will accommodate client preferences in regard to scheduling of aide services. A PMM also places the responsibility for aide training and supervision on the agency. Some public programs mandate minimum training and supervision requirements; others leave it up to the agencies (or to state licensing laws) to determine how much and what kind of training and supervision the agency provides to its aides.

C. Prevalence of the CD and PM Models in Existing Public Programs

Federal law allows states to determine which of these models of program administration (CDM, PMM, or a combination of both models) they wish to adopt, even when services are being partially reimbursed with Federal funds under Medicaid or other joint Federal/state programs.

A 1988 national survey of state home and community-based supportive services programs for the elderly and younger adults with physical disabilities carried out by the World Institute on Disability (Litvak and Kennedy, 1991) found that within a given program, states typically decide to adopt either a CDM or PMM model. Approximately half the states surveyed had one or more supportive services programs which permitted clients with disabilities to employ their own helpers and, in varying degrees, displayed

the distinctive attributes of a CDM. The other half of states had supportive services programs which followed a PMM and required that aides and attendants for clients of public programs be employed by licensed home health or home care agencies (Kennedy and Litvak, 1991). Case studies of decision-making, involving interviews with state officials in six states, revealed that when program administrators elected the PMM, it was generally because they believed that it was the "least risky" approach to ensuring quality of care. Program administrators in these states tended to view clients as highly vulnerable and in need of protection and were also quite concerned with protecting the state against legal liability for adverse outcomes resulting from poor quality care. Program administrators in the states that chose the CDM were highly influenced by the lower unit costs of the CDM versus the PMM. They believed that the CDM was the more cost-effective approach and that, ultimately, this enabled the program to serve a greater number of clients and provide more generous benefits within the amounts that the state legislature was willing to budget for personal assistance services. Less frequently, state officials said that the CDM had been chosen because this approach strengthened and helped sustain clients' informal support systems, which not only saved money in the long run but also fostered more reliable, higher quality services. However, a few states which implemented a CDM also chose to restrict clients' choice of workers by prohibiting the hiring of most family members. Officials in these states expressed concern that allowing family members to be paid workers would erode families' sense of their responsibility and obligation to provide informal help.

A comparative study of state long-term care systems conducted for the Administration on Aging (Ladd et al., 1995), identified ten states as having made substantially greater progress than others in developing "balanced" long-term care systems; that is, systems that invested heavily in the development of home and community-based services for the elderly and disabled and that controlled the growth of nursing home care. As of 1992, all ten of these states finance personal assistance services under Medicaid, either through a personal care services optional benefit, 1915c home and community-based services waivers, or both. Four of the states (California, Washington, Oregon and New York) provided Medicaid-funded supportive services through both a CDM and a PMM, with the CDM being the dominant approach in California, Washington, and Oregon, and the PMM being the dominant approach in New York. The remaining six states (Texas, Delaware, Idaho, Arizona, Arkansas, and North Carolina) delivered Medicaid-funded services exclusively through a PMM.

In sum, there are examples of highly-regarded Medicaid home and community-based services programs organized predominantly around either a CDM or a PMM. Over the years, however, various stakeholder groups have developed and expressed clear preferences for one or the other model. Generally speaking, the disability rights and independent living movements (i.e., advocacy groups representing the views and interests of younger adults with physical disabilities) have been strong proponents of consumer-direction (Litvak et al., 1987; Batavia et al., 1991; Batavia, 1998). In contrast, advocates for the elderly, including the organizations which make up the "aging network" have long favored formally organized professional supervision and accountability under the aegis of government-regulated home care agencies (Ansello

and Eustis, 1992). Very recently, however, some aging advocacy organizations, including the National Council on Aging and the American Association for Retired Persons, have begun to argue that one or another model may be better suited to some clients than others and that the clients themselves and their families should have more choice in the matter (NCOA, 1996). Professional home care agencies and their trade associations, not surprisingly, assert the superiority of the PMM. Trade unions representing or seeking to organize home care aides express concern that states may choose to implement the CDM in ways that go counter to workers' interests.

President Clinton's 1993 health reform initiative, embodied in the Health Security Act (HSA) bill of 1993, included a proposal to greatly expand Federal funding for state-run home and community-based supportive services for the elderly and disabled which would have required participating states to make supportive services available through both a CDM and a PMM. The choice between the two models of service delivery would have been largely up to the clients. The provision never became law, however, because Congress did not enact President Clinton's proposed health reform bill. Nevertheless, the HSA provision mandating that both the CDM and PMM options be available drew attention to the debate over the pros and cons of these two service delivery models.

D. Debate Over the Advantages and Disadvantages of the CDM and the PMM

Reviewing the arguments of proponents and critics for and against consumer direction as compared to professional management and for and against employing family members as compared to non-family members as paid workers provides a useful context within which to review and interpret the findings of the study. These arguments served to generate the hypotheses that the research team tested using the data collected from interviews with clients and their home care workers.

Pros and Cons of the PMM

A home care agency typically is organized and run by some combination of nurses, social workers, and manager/entrepreneurs, who hire and train a staff of personal attendants and homemaker-chore workers; some workers act as both, some only as the latter. The agency may be non-profit or for-profit, and may be freestanding or part of a chain. The agency is the employer and supervisor of the worker; as such, it sets the work regulations and conditions of employment.

Supporters' Arguments. According to its supporters, agency direction protects clients from the administrative burden of arranging for and supervising staff, and from the dangers of incompetent, unreliable, or abusive helpers. This is because agencies screen their workers and check their backgrounds, train them before sending them into the field, and guarantee service quality through supervision and monitoring by professional staff. Agencies are also able to arrange for substitute care if a worker is unable to make a scheduled visit. Workers benefit because they have agency

coworkers as peers for support and consultation, a supervisor on whom to rely, and clear agency rules that protect them from excessive or inappropriate client demands. Workers also receive fringe benefits such as health insurance, reimbursement of work-related travel expenses, and some opportunity for career advancement through on-the-job-training and progressive assignment to clients with more complex needs.

Critics' Arguments. Opponents of the agency approach challenge the whole principle of the professional role as applied to supportive home care. Professional authority is grounded in the assumption that professionals possess highly specialized knowledge and technical expertise. However, supportive services are not medical care. Most supportive services, such as assistance with bathing, dressing, housecleaning and the like are activities that most people do for themselves or for other family members on a regular basis, for which no special expertise is required. Thus, critics of the professional management model argue that faith in professional expertise in the context of supportive services is misplaced: it serves to limit clients' influence over the quality of their own lives.

Critics not only challenge the superiority of agency direction in principle. They also challenge its implementation in fact. Agencies, they argue, have an entrepreneurial focus that often leads balance sheet concerns to override a client focus. Less training and supervision is provided than claimed, scheduling so as to maximize billable hours--which often means large worker caseloads--may take priority over continuity and quality of care, and inflexibility and economy too often prevail above responsiveness to changing client needs. Workers are assigned because of scheduling convenience rather than compatibility, compromising interpersonal closeness with clients. And agency limits on "appropriate" tasks (for example, no driving to nonmedical appointments, no climbing ladders) can leave clients without the assistance they need when they need it.

Pros and Cons of the CDM

Under client direction, there is no agency. The workers are selected, employed, and directly supervised by the client, who specifies what should be done, and how.

Supporters' Arguments. Supporters of client direction focus on the benefits that flow from having the clients the central decision-makers. Supporters argue that, in exchange for taking on more work and responsibility for directing their own services, consumers gain more power over their lives in ways often denied people with disabilities. Persons with disabilities (elderly included), advocates assert, are no less enthusiastic about or capable of self-direction than others. When necessary, clients can turn to others for help and advice in worker selection and supervision. And since workers are hired by and responsible to no one but the client, they can negotiate with clients about schedules, tasks, and task performance. Because this model involves only the client and worker, it enables a given budget to cover significantly more hours of services delivered to more seriously disabled clients than does the agency alternative, which is more expensive because of overhead costs.

Critics' Arguments. To critics, many of these claims fall far short of reality. Client direction can be burdensome and problem-ridden for many people, particularly elderly people, the argument goes. Recruiting workers is difficult and may result in delay in the start of services. Screening and reference checks require time and resources and are difficult, even for professionals. Lack of professional confirmation of suitability leads to more danger of client abuse (physical, psychological, and financial). When the worker fails to turn up, clients must find their own backups. And if there is client-worker friction, there is no one else immediately responsible for improving the situation or finding another worker. Critics also argue that the work life of client-directed workers is much more demanding and less satisfying than advocates (and budget watchers) admit. Training depends mostly on client knowledge and capacity. Workers typically have no peer or support group for guidance and advice, there is no supervisor to help with problems, and there are no fringe benefits (such as health insurance, pension plans, vacation or sick leave) or opportunities for job advancement.

Pros and Cons of Employing Family Members

Under Federal Medicaid regulations, relatives may be reimbursed for personal care services rendered as long as they are not "legally responsible" family members (i.e., spouses or parents of minors). California places no state restrictions whatsoever on the hiring of family members as IHSS workers; accordingly, California uses state funds to cover the full cost of IHSS for clients who choose to hire spouses or when parents wish to be the paid providers for their minor children. Some states, however, have chosen to be more restrictive than Federal law requires about the use of Medicaid funds to reimburse relatives providing services at home.

Supporters' Arguments. Supporters suggest that paying family members is a valuable option that reinforces natural caring relationships, benefitting both clients and families. For clients, hiring a family member avoids the need to bring strangers into the home to assist with what may be very intimate tasks. Family members know clients and their preferences and, thus, are more likely to perform assistive tasks in preferred ways. Family members may also be more reliable than non-family members. And those who live with the client are likely to be more flexible and responsive to client needs at unscheduled times. Finally, disability can limit the economic options of clients and family members committed to providing assistance. Supporters contend that public policy should acknowledge the economic fragility of these family systems and invest in supporting them.

Critics' Arguments. Critics argue from both fiscal and client perspectives. From the fiscal perspective, it is seen as irresponsible for the public treasury to pay people for meeting their moral obligations within the family system. Paying for services that would otherwise be provided without public cost will lure family members out of the woodwork and onto the social services rolls, further escalating costs and distorting family relationships. It may also attract the lazy and the greedy rather than the enterprising and competent, undermining the quality of services to clients in need. The client argument is that having a close relative as the only (or primary) employee dilutes the ability of clients

to maintain autonomy and control. The emotional ties and complex family histories can complicate and even undermine what should be a business-like service relationship defined and directed by the client. Firing a family member (especially one who shares your household) in case of unsatisfactory job performance may be extremely difficult, if not impossible.

E. Reasons for Choosing California's IHSS Program as the Locus of Comparison

Although the advantages and disadvantages of consumer-direction as compared to professional agency management have stimulated vigorous debate, with strong arguments brought to bear on both sides, it is difficult to make direct comparisons between the two models because existing programs have chosen to implement one or another approach exclusively or predominantly. In exploring possibilities for a comparative study of the CDM and the PMM, the Federal agency responsible for contracting for this research (ASPE/HHS) quickly ascertained that there was no existing state program which presented ideal study conditions.

Among the handful of states which offered some possibility for comparison of the two models within the same public program, California's In-Home Supportive Services (IHSS) Program was chosen as the locus of the study primarily because the program serves a large number of clients (approximately 200,000 at any point in time) and also serves a broad range of clients in terms of age, severity of disability, and the nature of the diseases or conditions responsible for their functional disabilities. Thus, the study would be assured of obtaining sufficient numbers and variety of clients in both models, even though the PMM (which, in California, is referred to as the "contract agency" mode of service delivery) is only available in twelve counties, whereas the CDM (referred to, in California, as the independent provider mode of service delivery) is available in all 58 counties. In addition, California's IHSS permits clients in the CDM to hire family members as their aides, thereby making it possible also to compare outcomes according to whether or not workers were related to their clients. About 40 percent of IHSS clients employ family members.

Clearly, in the 42 counties where the PMM is not available, all IHSS clients receive services via the CDM. However, even in the California counties where both the CDM and PMM models are both available, IHSS clients are neither assigned randomly to one or another model, nor do they choose which model they will receive services through, although their preferences may be taken into account.

When individuals apply for IHSS, county-employed case-managers make home visits to assess their ADL and IADL limitations, plus cognitive functioning. On this basis they determine the number of monthly hours of needed services. A maximum of 283 hours a month is allowed for the most seriously impaired clients, and reassessments are done annually. Funding per client is capped at a maximum monthly dollar amount computed as the maximum hours figure of 283 multiplied by the state minimum wage--

which was recently increased to \$5.75 an hour--for a monthly dollar cap of \$1,627.25 per client. Covered services include personal care, household and related chores, paramedical services (such as injections, suctioning, and dressing changes), protective supervision, and transportation to medical appointments.

Interviews that the UCLA research team conducted with approximately 100 county case-managers as well as higher level IHSS managers indicate that cost considerations exert a strong influence on the choice of models. The unit cost of IHSS (i.e., per hour, per client cost) is higher in the PMM than the CDM. IHSS contract agencies are typically reimbursed at \$13-14 per hour. This is considerably less than what Medicare typically pays a home health agency for a home health aide visit (i.e., \$60 for about three hours). However, IHSS contract agencies are state-licensed home care agencies, rather than Federally certified home health agencies. State licensed home care agencies are not required by Federal law as are Medicare/Medicaid home health agencies to provide regular, periodic in-home supervision of aides by registered nurses nor are aides required to be Medicare-certified home health aides (i.e., who have received at least 80 hours of training with a Federally mandated training curriculum). In contrast, hourly costs for the CDM are limited to the hourly wages paid to the aide (typically at or only slightly above the state minimum wage of \$5.75 per hour) plus fringe benefits (including the employer share of the Social Security tax on workers' wages) and a small processing fee to a firm that provides payroll services under contract to IHSS. Although CDM clients are considered to be the employers of their individual workers, the payroll firm acts as a "fiscal intermediary," processing paychecks and taking responsibility for making Social Security and any other payroll deductions from funds provided by the states and counties. The hourly cost differential between services provided under the CDM and the PMM is about 40 percent.

Thus, for the most severely disabled clients, who are assessed as requiring the maximum allowable monthly hours of service, there is a strong motive to provide services via the CDM because the higher hourly cost of the PMM coupled with the monthly expenditure cap would result in the client receiving fewer total hours of monthly service in the PMM. However, casemanagers also take into consideration whether or not a given client is likely to have difficulty recruiting a worker in the CDM. As a result, clients who case-managers believe may have difficulty recruiting workers are more likely to be assigned to the PMM. At the same time, casemanagers are aware that contract agencies do not permit their workers to perform para-medical tasks (tasks which unlicensed personnel other than family members are not authorized to perform under California's Nurse Practice Act) and also do not permit their workers to drive their own or clients' cars while escorting the client outside the home (e.g., to medical appointments). Thus, if a client needs a paid worker to perform paramedical tasks or drive a car, he or she is more likely to be assigned to the CDM. The net effect of these decision factors are systematic differences in the characteristics of clients participating in the CDM and the PMM.

Generalizability of California IHSS Findings to Other States

In considering the generalizability of the results from a study based on data from California's IHSS program to other public programs in other states, it is important to bear in mind that there are some variations, mostly minor but some more major, in the CD and PM models as they have been implemented elsewhere. California's CDM very strongly resembles the approach used by Michigan in its Medicaid-funded personal care services program. In particular, both programs permit family members to be hired as personal care attendants and the percentage of CDM clients who hire family, friends, or neighbors as providers in Michigan and California are almost identical. Oregon and Washington state's implementation of the CDM are also very similar to that of California and Michigan. None of these states requires consumer-directed aides to be trained or certified as home care attendants; however, Oregon requires criminal background checks for CDM providers.

In contrast, New York's consumer-directed personal assistance program (CDPAP) does not permit CDM clients to hire close family members (including adult children of elderly clients or parents of disabled adults). Also, as exemplified by New York City's Concepts for Independence, CDM providers, though hired/fired, trained, scheduled, and supervised by their clients, do have an agency as their "employer of record" for payroll and tax purposes. This approach is believed to facilitate the offering of fringe benefits such as health insurance and worker's compensation to CDM workers and, indeed, most workers in New York City receive these benefits whether they work for a traditional agency in the PMM or are hired by a client and are nominally employed by a consumer-directed agency in the CDM. Some California counties are moving toward a similar approach via the creation of "public authorities"--which are independent, non-profit organizations with community boards of directors (including consumer and labor representatives as well as local government representatives). The public authority serves as the official "employer of record" for CDM workers, although payroll functions may still be performed by a specialized contract firm. A primary purpose of the "public authority" variant on the CDM is to provide a mechanism for collective bargaining over CDM worker pay and benefits.

In some other states, the CDM is quite different. For example, in Massachusetts, Medicaid funding for personal care services goes to independent living centers. The centers in turn require the clients themselves (or clients' family members) to take responsibility for paying their workers. The centers train clients in how to manage their workers but they do not monitor client/worker relations. Although some clients treat their workers as "employees" and file the employer share of social security on behalf of their aides, others treat their workers as self-employed "independent contractors" responsible for their own taxes. At the other end of the spectrum of client choice and control, Maryland's "independent provider" model incorporates some features of a CDM and many features of a PMM. Although clients hire individual providers, they are not permitted to hire any relatives (including aunts, uncles, cousins). Moreover, training and supervision is provided by registered nurses under contract to the state, and, indeed, most clients appear to hire workers recommended by the contract nurses. In addition,

though clients sign time-sheets to verify that providers did the work, the state pays the workers per visit as "independent contractors;" that is, they are treated for tax and labor law purposes as self-employed rather than as employees of the client, an agency, or the state.

Finally, there are also variants across states in the PMM. Some states, such as Texas, require Medicaid-funded personal care services to be provided through Medicare/Medicaid certified home health agencies. Many other states, like California, contract with state-licensed home care agencies, which results in a much less "medicalized" approach to professional management. In a similar vein, in many states the PMM requires a minimum amount of nurse supervision, primarily taking the form of a periodic supervisory home visit by a registered nurse (the time period may be as frequently as every three months or as infrequently as once a year). Federal Medicaid law and regulations no longer require such periodic nurse supervision for personal care services. Accordingly, some states have chosen not to apply such a requirement as a state mandate. California's IHSS program does not require periodic home visits by a nurse and it appears that contract agencies generally prefer to have aide supervision done primarily by more experienced home care aides rather than by nurses.

Previous research (Doty, Kasper and Litvak, 1996) has found that some of these variations in how the CD and PM models are actually implemented in practice can significantly affect client outcomes. For example, client survey data found that the Michigan approach afforded clients significantly more choice and control and resulted in significantly higher levels of consumer satisfaction than the Maryland and Texas approaches.

F. Sample Design, Data Collection, and Analysis Techniques

To draw valid conclusions about the comparative effectiveness of the alternative service delivery models with regard to desirable client and worker outcomes, the study must be able to identify differences in client and worker experiences *that are attributable to (caused by) differences between the Professional Management Model and the Client-Directed Model*. Causal differences attributable to the models must be carefully distinguished from differences which are the result of various factors operating in the program environment, most notably variations in client characteristics. These latter include, but are certainly not restricted to, age, social and economic status, the nature and severity of the client's disabilities, and whether the client is living alone. Such factors could even be more important influences on client outcomes than service model-and may in some cases also influence the likelihood of a client receiving services via a particular model. Similarly, worker characteristics may influence worker outcomes irrespective of service model.

The burden of controlling for non-model differences, therefore, lies heavily on (1) a sample design that maximizes the precision of the estimates, (2) a data collection strategy that yields sufficient information to be able to control for a wide variety of

factors likely to influence outcomes, and (3) statistical estimation techniques that incorporate the multitude of available information in a way that minimizes bias, at the same time that it highlights the influence of substantively important influences on client and provider outcomes. Each of these aspects of the study are reviewed in turn.

Sample Design

The client sample was drawn from the California Management and Information Payrolling System (CMIPS) database for May 1996. The criteria for selection were as follows: being at least 18 years old; not having a "severely impaired" rating on memory, judgment, or orientation; and having been in the program for at least six months prior to September 1996. Residents of Tulare County were excluded because the county was in transition back to a Client-Directed Model from a county-wide long-term care demonstration to evaluate a model of "managed" home care under which all IHSS clients were served by a home care agency that received capitation payments. In addition, clients who did not speak--and therefore could not be interviewed in--English, Spanish, Cantonese, Mandarin, or Vietnamese were excluded from the study. Applying these criteria reduced the original database from 191,282 to 132,049 cases.

The research design called for sampling by dividing (stratifying) the population into different groups and then selecting a certain number of cases at random from each group for the study sample. Stratifying in this way increases the precision of the estimates. The target sample for this study was first divided into the two service delivery models. Within each, the target sample was further divided by age (over and under 65) and severity of impairment (severe and not severe). The plan called for a sub-sample of 500 clients to be randomly selected (within stratum) for each service delivery model, yielding a total client target sample of 1,000. The plan for the worker target sample, totaling 500, was to select a sub-sample of 250 for each model from the pool of workers serving the clients in the study sample.

Data Collection

Separate surveys, designed on the basis of well-known, well-validated scales from other research, were administered by telephone to the client and worker samples. The client instrument asked about client demographics, IHSS service use, functional status, disability status, and a great many items that together cover five client outcome areas: safety, empowerment, unmet needs, satisfaction, and quality of life. The worker instrument asked about worker demographics, working conditions, relationship with client, worker safety, and a variety of items that together cover two worker outcome areas: stress and work satisfaction. These client and worker outcome areas together encompass much of the policy debate over service model and type of worker. Follow-up in-person interviews were completed with a subset of clients and workers to encourage further communication about their experiences in a less structured format.

To increase response rates, 12 phone calls were attempted before a final disposition was made, strong efforts were devoted to persuading initial refusals to

become respondents, and it was possible for interviewers to postpone completion of a specific interview if necessary to avoid interviewee impatience or exhaustion.

The final client sample was comprised of 1,095 clients. The final worker sample was comprised of 618 workers. Of all sample members successfully contacted, completion rates were high--77.8 percent for clients, 86.9 percent for workers. Clients who were contacted and eligible to participate (e.g., still receiving IHSS) but who declined to be interviewed were older, more likely to be White, and somewhat more impaired in orientation and judgment, yet less likely to be classified by IHSS as severely disabled and having somewhat fewer authorized hours of service than those who agreed to participate in the study.

Analysis Techniques

Since the study collected multiple measures of client and worker outcomes, some method was needed to organize the data in a cohesive, interpretable manner. Factor analysis was chosen--a well-respected technique for ordering a large number of interrelated variables into a smaller number of coherent dimensions. The factor analysis yielded the five client outcome areas and two worker outcome areas, each with several dimensions within it. (Client safety, for example, covers two dimensions: (1) physical and psychological safety and (2) sense of security).

To estimate the independent contribution of each explanatory variable to a particular outcome, regression analysis was used. This powerful estimation technique allows all other variables affecting an outcome to be held constant while the effect of a particular variable is estimated. The effect of service delivery model on client empowerment, for example, can be isolated from the effect of living alone, belonging to a particular ethnic group, living in a particular county, and all other variables that prior research or logical reasoning suggests may have an effect on client empowerment. In a similar way the effect of client age can be isolated from the effect of service delivery model and all other potential influences.

For each dimension of each of the outcome variables for both clients and workers, a separate equation was specified. The potential predictor variables represented in the equation for a particular outcome dimension were selected based on insights on the likely predictors of that outcome gleaned from prior theoretical and empirical research. In each case, the predictor variables were grouped into sets and entered into the specific equations using a hierarchical approach. This approach isolates the effects of particular variables of interest from the effects of other variables that precede them in their effect on the outcome variable, either temporally or logically. It should be noted that other approaches to equation specification were also tried in the study, without major differences to the resulting estimates. This indicates that the study findings are statistically quite robust. In other words, substantial confidence can be placed in them.

Limitations of the Research

Severely cognitively impaired IHSS clients could not be interviewed by telephone and had to be excluded from the main data collection. Since severely cognitively impaired IHSS clients may be at greatest potential risk for abuse, neglect and mistreatment, it was considered important to find some method of including a sample of such clients in the study. Accordingly, a small sub-sample of 50 severely cognitively impaired IHSS clients were visited in their homes. In almost all cases, the clients proved to be so impaired that they could not be personally interviewed. Moreover, only a few such clients had family members living in the household who were not also serving as their IHSS providers. Under these circumstances, it was clearly impossible to obtain an independent evaluation of worker behavior and performance. Without exception these severely cognitively impaired clients qualified for Medicaid-funded nursing home placement. The researchers who conducted the in-home interviews reported that it appeared to be only because of the strong commitment of the clients' family members to providing home care, both with and without pay, that these clients remained in the community. A description of these in-home interviews with workers and, where possible, other family members of severely cognitively impaired clients is included in the appendices of the full technical report.

II. FINDINGS

The first section (Section A) presents descriptive findings about clients and providers in the alternative service models. There are several purposes for presenting this descriptive information before moving on to a discussion of model-related outcomes, as adjusted via multi-variate analysis to control for differences in clients' level of service need and other client/worker variables that could also predict differential outcomes. One purpose is to provide an overall comparison of clients' and providers' experiences with the IHSS program, by model and by client/provider relationship--without statistical adjustments for differences in client and provider characteristics. These unadjusted percentages provide a better overview than the more complex multi-variate regression results of how the majority of clients and providers in each of the models experience the IHSS program. As such, these data provide an interpretive context for subsequent discussion about the extent to which desirable outcomes are attributable to service models per se or to family/non-family providers as distinct from other client and provider variables. The major contextual point that deserves to be underscored here is that, overall, IHSS clients and providers reported experiences that were considerably more positive than negative and that highly negative experiences are rare, regardless of which service model they were in and regardless of whether CDM providers were family members or non-family members.

A second purpose for providing descriptive results is to point out various ways in which clients' actual experiences with alternative service delivery approaches typically resemble or differ from the expectations of proponents and critics as outlined earlier in the "debate" section. It is quite striking that some of the anticipated differences across service models are not reflected in client or provider reports and some anticipated differences which did appear were considerably weaker than expected. Third, the descriptive data reveal many significant differences in client and provider characteristics in the CDM and the PMM and within the CDM by client/provider relationship, clarifying the need for multi-variate analyses to determine whether differences in client and provider outcomes associated with service delivery alternatives are actually attributable to these organizational variants or to differences in the characteristics of clients who use each of the options.

A. Descriptive Overview of Client and Provider Characteristics in the CD and PM Models and Within the CDM, Where Clients Have Hired Family as Compared to Non-Family Providers

Client Demographics, Service Need, and Reliance on Informal/Formal Supports

In the IHSS program as a whole, over 90 percent of clients receive services through the CDM. To a certain extent, differences in CDM and PMM client characteristics represent population differences (e.g., prevalence in certain areas of

various racial/ethnic groups, younger adults with disabilities as compared to frail elderly) in counties where only the CDM is available as compared to the 12 counties where both models are available. However, in counties offering both the CDM and the PMM, clients were more likely to be receiving services via the PMM if they had relatively few service needs, lived alone, and were assessed as needing help finding a provider.

Table 1 displays statistically significant differences in demographic characteristics of clients by service delivery model. Table 2 shows the significant areas of difference in client functional status across models. Table 3 shows the differences in availability of and reliance on informal supports and reliance on other (non-IHSS) formal services across models.

Overall, PMM clients were more likely to be White and to be better educated, while CDM clients were more likely to be ethnically diverse (Black, Latino, and Asian) and to have less than a high school education. On average, those clients using the CDM also have greater service needs than those in the PMM. More CDM clients have both ADL (e.g., eating, bathing, dressing, etc.) and IADL (e.g., preparing meals, shopping, housecleaning, etc.) needs, while more PMM clients have no ADL needs and comparatively fewer IADL ones.

A majority of PMM clients live alone, while a majority of CDM clients share a household with others. PMM clients also report receiving less help from family and friends; however, they are better connected to other formal and volunteer services (e.g., senior centers, adult day care centers, support groups, etc.) than CDM clients, who are more confident about availability of help from informal support networks and less dependent on community services other than IHSS. The only exception to this rule was that CDM clients with non-family providers were more likely to be users of vocational rehabilitation services. Thus, client direction is more often implemented in the context of strong informal support systems, whereas the PMM is more often implemented in the context of dependence on other formal services.

CDM clients are not only significantly more likely to receive unpaid help from relatives and friends than PMM clients but they also receive more unpaid hours of assistance per week (35.7 as compared to 18.6). CDM clients are also significantly more confident than PMM clients of being able to access backup assistance from informal helpers and CDM clients are significantly more likely to say that they have someone to turn to for advice.

Table 4 provides data on client service experience with IHSS. Because clients who need more hours of service tend to be channeled into the CDM, clients in that model receive, on average, nearly three times as many IHSS paid hours of service per week as PMM clients (28.3 as compared to 10.3). CDM clients are nonetheless significantly more likely than PMM clients to feel that their paid service hours are insufficient. A sizable minority of CDM clients (22.7 percent) characterize their authorized service level as "much too low." This is probably a function of IHSS program limits on paid service hours. CDM clients not only report receiving both more unpaid

hours of help from family and friends but specifically, more extra hours of unpaid help from their IHSS providers than PMM clients (6.6 hours per week as compared to 0.4). (See Table 5.) Even CDM clients whose providers were not family members received more unpaid hours of assistance from their workers than PMM clients, although CDM clients with family providers received significantly more unpaid hours per week (9.3 as compared to 4.2) than CDM clients with unrelated providers.

B. Client Experiences: Differences and Lack of Differences Across Models

Abuse, Neglect, Mistreatment

Because of widespread concern about the vulnerability of home care clients to various forms of abuse, neglect, or mistreatment by their providers, it is of particular importance to know the extent of the risk clients actually face and whether their risk of being victimized or poorly cared for by their home attendants differs significantly by mode of service provision. Advocates of professional agency management have long argued that this approach minimizes risk because agency-employed workers are better screened, better trained and better supervised. Some critics of allowing family members to become paid providers argue that this is a risky option because population-based studies of elder abuse have generally found family members to be the most common perpetrators (Kapp, 1990).

In this study, IHSS consumers were asked whether they had experienced various abusive or neglectful behaviors on the part of their providers within the previous 12 months. Reports by consumers of having had such experiences were rare regardless of the model of service provision (CDM or PMM) or type of client-directed provider (family or non-family). On most indicators there were no statistically significant differences with respect to the frequency--or, more precisely, the rarity--of such reports. For example, 95 percent of consumers in both the CD and PM models of service provision said that their providers had "never" threatened them and, within the CDM, 96.6 percent of clients with family providers as compared to 93.7 percent of clients with non-family providers (a non-statistically significant difference) said the same. Similarly, there were no statistically significant differences in reports of providers coming to work under the influence of drugs or alcohol across models or by provider type (between 95.7 and 98.3 percent of clients across the various modes of service provision reported that this had "never" happened). In both the PMM and CDM, 95 percent of consumers reported that their provider had "never" threatened them. Similarly, 97 and 98 percent of PMM and CDM consumers respectively reported that their providers had "never" pushed, shoved, or physically hurt them. There was also a very low incidence of reports of unwanted sexual advances by workers (between 1.9 and 3.4 percent of clients reported such experiences across models and provider types and none of the differences in reported frequency were statistically significant).

When consumers were asked whether they had ever thought that their provider was responsible for money or other items disappearing from their homes, 89.1 percent of PMM consumers said "never" as compared to 93.5 percent of CDM consumers--a statistically significant difference favoring the CDM. Within the CDM, 98.3 percent of consumers with family providers had "never" thought their providers responsible for thefts as compared to 89.1 percent of consumers with non-family providers--also a statistically significant difference. With respect to neglect, 71.7 percent of PMM consumers reported "never" having been neglected by their providers as compared to 83.6 percent of CDM consumers--a statistically significant difference. Within the CDM, 91.1 percent of consumers with family providers said that their providers had "never" neglected them as compared to 75.9 percent of clients with non-family providers--a statistically significant difference favoring family providers. At the same time, when consumers were asked whether they felt safe with their providers or how well they and their providers got along, there were no statistically significant differences between PMM and CDM consumers. However, on both of these measures, there were statistically significant differences favoring family over non-family providers within the CDM.

Reliability, Continuity, and Responsiveness

In addition to fears about abuse, neglect, and mistreatment, policymakers and program administrators often express concern about reliability and continuity among home care workers. Frequent turnover among aides is widely regarded as a problem in the home care field generally. Similarly, there is a perception that home care workers too often arrive late, leave early, or are absent unexpectedly. However, this study found worker turnover in the IHSS program to be low in both models. A majority of both CDM and PMM clients reported having the same provider for the past twelve months (or since joining the program), although significantly fewer CDM clients reported having multiple providers within the past year. Clients in both models typically reported having the same aide for several years, but the CDM clients and workers had been together significantly longer, on average. Similarly, CDM clients were significantly less likely to report ever having needed to replace a provider. Within the CDM model, clients with family providers were significantly less likely to have had a different provider within the past year, to ever have replaced a provider, and averaged the longest time periods with their providers.

With respect to reliability, fewer than 15 percent of clients in both the CDM and the PMM reported that their workers often arrived late or failed to show up for scheduled visits. There were no statistically significant differences between the CDM and the PMM on these measures of worker reliability. However, within the CDM, clients with family providers were significantly less likely than those with non-family providers to report that their providers were frequently late (perhaps because family providers are considerably more likely to live with their clients).

Consumers were also asked specific questions about the manner in which workers did their jobs. Somewhere between one-fifth and one-quarter of clients across

models and provider types (i.e, the PMM, the CDM with family providers, and the CDM with non-family providers) agreed that their providers often hurried too much in their work but there were no statistically significant differences across models with respect to this complaint. Fewer than twenty percent of clients across models and provider types felt that their providers needed to be more respectful and there were no statistically significant differences by model or provider type. However, a sizable minority (about one-third) of IHSS clients, regardless of model or provider type, agreed that their workers needed to be more attentive in listening to and following instructions (there were no statistically significant differences between clients in the CDM or the PMM or between CDM clients with family and non-family providers with respect to this criticism).

Obtaining Regular and Backup Workers

As discussed earlier, in the context of the debate over the advantages and disadvantages of the CDM versus the PMM, it is widely believed that providing services through agencies gives clients greater security in terms of making initial arrangements to begin receiving supportive services, in having access to reliable backup help when a regular provider is sick or is otherwise absent unexpectedly and in being able to obtain another worker quickly when a provider quits or needs to be replaced because his or her work is unsatisfactory. Proponents of the PMM consider the comparative ease in initiating or changing service arrangements to be a significant advantage of the PMM, and even advocates of the CDM are inclined to consider this a weakness of their preferred approach.

Not surprisingly--given that case-managers mentioned this as a reason for referring clients to the PMM--clients in the PMM were significantly more likely than clients in the CDM to report that they needed help finding a worker. A majority of CDM clients--and a large majority of CDM clients with family providers--reported being able to find their providers without help. Those CDM clients who received help finding a provider appear to have received help primarily from informal sources. In contrast, almost all PMM clients reported receiving help finding a provider from an agency or from the county.

Among those clients in both models who reported ever replacing a provider, roughly half said that they obtained a new provider in less than a week, whereas the other half reported that the process took a week or longer. There were no statistical differences between CDM and PMM clients or between CDM clients having family and non-family providers in the reported length of time required to secure a new provider. This lack of a time difference in changing providers is noteworthy because one of the often claimed advantages of the PMM--and supposed major disadvantages of the CDM--is that agencies will have workers available for immediate assignment whereas CDM clients presumably have to engage in a more lengthy recruitment process.

CDM clients were much more likely than PMM clients to report that if they needed help on short notice because a provider could not come that they would turn to a family member or friend for assistance. PMM clients were most likely to depend on the

agency to send another provider. However, similar percentages of both PMM and CDM clients (15.8 and 18.4 percent respectively) said that they had no one who would help in these circumstances. When asked whether they worried about knowing whom to turn to for help if a provider was sick or in an emergency, there were no statistically significant differences between CDM and PMM clients. Similar percentages (a little over or under one-quarter) of IHSS clients across models and provider types said that they worried a great deal or quite a bit about obtaining backup help on short notice. Although almost all clients said that they knew how to reach the home care agency (PMM clients) or their county worker (CDM) and most felt that they could contact the agency or the county worker without problems, CDM clients were significantly less likely to express confidence in being able to reach their county workers without problems.

Day-to-Day Aspects of Choice and Control

The CDM is designed to allow clients more choice in hiring and firing workers and more control over scheduling, training, and supervising workers. Client reports indicate that the CDM does indeed give clients significantly more choice and control in these areas. Interestingly, not only CDM clients as compared to PMM clients reported having greater choice about who their provider would be, but CDM clients with family providers also reported having more choice in hiring than CDM clients with non-family providers. Agencies often have rules restricting what tasks a provider may perform and CDM clients reported having more choice in this regard than PMM clients. There was no significant difference between CDM clients with family and non-family providers on this measure of consumer choice. Similarly, CDM clients reported having significantly more choice than PMM clients over scheduling of workers. Approximately one-third of PMM clients reported that they had little or no choice about what days or what times providers came, as contrasted with fewer than 10 percent of CDM clients. Even though CDM clients reported significantly greater control over how their providers did their work, a majority of PMM clients (71 percent) said that they had a great deal or complete choice over how tasks were performed.

Program administrators and other experts on long-term care for the elderly often express concern that many clients may be unwilling to complain if they experience problems with their aides. However, this study found that a large majority of IHSS clients regardless of model said they would be very or somewhat likely to complain if they experienced a problem. There were no significant differences across models in expressed willingness to complain. At the same time, there were small percentages--between 16 and 19 percent of clients--in the PMM and the CDM, including those with and without family providers, who reported that they would be very unlikely to complain about a problem with a provider. Nevertheless, when clients were asked who they would complain to if there were a problem, well under ten percent said that they would complain to no one. PMM clients were more likely to say that they would complain to the agency (46 percent) whereas CDM clients were most likely to say that they would complain directly to their worker (47 percent), although they were also more likely than PMM clients to say that they would complain to family or friends or to county workers as opposed to others. Although those who are critical or skeptical of the wisdom of

permitting clients to hire family members often express concern over whether clients will complain about problems with family providers, there were no statistical differences between CDM clients with and without family providers in their reported willingness to complain to someone or who they said they would complain to in the event of a problem with a provider.

Because having greater choice and control over services requires clients to take on more responsibility and more "work"--which some clients may or may not prefer or be willing to do--it is interesting to examine the level of satisfaction PMM and CDM clients reported with the amounts of choice and control they had. Most clients in both models (82 percent of PMM clients and 94 percent of CDM clients) expressed satisfaction with how much choice and control they had. It appears that clients in both models who were less satisfied typically wanted more rather than less choice and control. For example, although a significantly greater percentage of PMM as compared to CDM clients said that they wanted someone else to supervise their providers (23 percent and 6 percent respectively), over two-thirds of PMM clients expressed a preference for supervising their providers by themselves, without help from anyone else. Even with regard to training providers, 58 percent of PMM clients (as compared to 76 percent of CDM clients) said that they would prefer to train their own providers without help. Less than 12 percent of PMM clients expressed any discomfort or uncertainty about telling their providers what they wanted done.

Provider Characteristics

Table 5 presents descriptive data on the relationship between clients and their providers by model type. Because CDM providers are recruited and hired by their clients and IHSS places no restrictions on hiring family and friends, it is scarcely surprising that a substantial majority of CDM providers were previously acquainted with their clients. Close to half of CDM clients hired family members, and an additional one-quarter hired friends, and the remaining quarter hired persons previously unknown to them. In the PMM, virtually all providers assigned to clients by agencies were individuals that the clients had never met before.

IHSS workers in both models are mostly female and non-White, but PMM workers are more likely than CDM workers to be Latino and to have less than a high school degree (Table 6). Ethnic/racial differences across clients and workers suggest that the PMM is more likely to involve a Latino aide assisting a White client, whereas the CDM has more clients and providers who are similar ethnically and racially. Interestingly, a criticism that is sometimes leveled at the CDM is that allowing clients to hire their own providers may permit them to exercise racial/ethnic preferences and prejudices in employment, whereas agencies would be prohibited by law from engaging in such discriminatory behavior. Although this may be true, the net effect of permitting clients to have free choice in hiring is to promote greater racial/ethnic diversity in the program's workforce as a whole because client choices mirror the ethnic/racial diversity in the client population.

This "match" between client and worker in the CDM is in many cases a byproduct of clients choosing family, friends, and neighbors to be their providers. At a minimum, compatibility in a home-based service relationship probably requires that clients and workers be able to understand and communicate with one another. Significantly more PMM than CDM clients reported language difficulties in communicating with their providers. Compatibility between clients and workers in the PMM may be further complicated by the fact that more PMM clients than CDM clients had had multiple providers within the previous year so that there were, on average, more workers with whom PMM clients had to establish relationships.

CDM workers, on average, are older and less likely to be married or to ever have been married than PMM workers. CDM workers are better educated (i.e., more likely to have high school diplomas and to have gone to college). A significantly higher percentage of PMM as compared to CDM workers reported having quit a previous job to become IHSS aides. This is because for more CDM providers, IHSS simply became a second job. About one-quarter of CDM workers (both family and non-family providers) reported holding other jobs in addition to their IHSS employment, whereas fewer than 10 percent of PMM workers had other jobs (Table 6). The picture that emerges is that PMM workers seek out employment in the home care field whereas CDM workers are more likely to take aide jobs as a time-limited response to a specific person and set of circumstances. In this vein, PMM workers reported more years of experience in home care and had worked longer as IHSS providers.

Provider Training

Client and provider reports about training differences across models and provider types warrant special attention. This is because of the very different attitudes toward training expressed by proponents of the PMM as compared to proponents of the CDM. Among proponents of the PMM, it is generally taken for granted that formal training leads to better quality care, that agencies are well equipped to provide the necessary training and do provide it whether they are legally required to or not. An often-expressed corollary belief is that public programs should promote quality care by establishing formal training requirements which should apply equally to PMM and CDM providers. In contrast, advocates of the CDM typically argue that formal training is unnecessary, that clients can train their own aides and, indeed, that clients should train their own aides because training should be individualized to suit the special needs and preferences of particular clients. Moreover, disability rights activists in particular tend to argue that if formal training is provided, it should focus primarily on employer/employee relations (i.e., teaching clients how to be good employers and teaching clients and workers together how to resolve interpersonal conflicts) rather than on teaching aides how to perform particular ADL, IADL, or paramedical tasks.

The study data (Table 7) indicate that neither of these standard, albeit contrasting, sets of arguments by proponents of the two models quite matches the actual experiences and preferences of clients and providers in either the CDM or the PMM. Significantly more PMM than CDM providers reported receiving formal training;

i.e., from sources other than the client (95 percent and 71 percent respectively). For the PMM providers such training was provided by their agencies (81 percent) although two-thirds also reported receiving training in a trade school or college. In contrast, almost all CDM providers who had training reported that they had received it episodically from home care nurses, physicians, or other professionals, including from hospitals and nursing homes. Non-family CDM providers were as likely as CDM family providers to have received this sort of client-specific training from health professionals.

There were statistically significant differences in the content of training that PMM and CDM providers reported receiving (Table 7). The most common form of training that PMM providers received was in personnel issues (81 percent). Two-fifths of CDM providers also reported receiving training in personnel issues (most likely from county workers who explained how to fill out time-sheets and send these in to the payroll firm to receive payment.) Three-fifths of PMM providers said that they had received training in performance of household chores as compared to only 20 percent of CDM providers. This was the only content area in which non-family CDM providers were significantly more likely than family members to report having received training (27 percent and 14 percent respectively.)

About three-quarters of PMM providers said that they had received training in bathing and transferring as compared to 48 percent of CDM providers who received training in transferring and 41 percent who received training in bathing. However, CDM providers were significantly more likely than PMM providers to report that they were actually providing help with these tasks. Over two-fifths of CDM providers as compared to one-fifth of PMM providers reported receiving paramedical training. About half of CDM clients report providing paramedical assistance (including help with medications or injections), whereas less than 10 percent of PMM providers say they provide this type of assistance.

There were no statistically significant differences between PMM and CDM providers or between family and non-family providers within the CDM in providers' own perceptions of the adequacy of their preparation for home care: only 9 to 12 percent of providers characterized their preparation as fair to poor. From the client's perspective, the great majority of clients saw their providers as being experienced and well-trained when they first came to work. There were no significant differences in client perceptions across models on this measure; however, CDM clients with family providers were significantly more likely than those with non-family providers to agree that their providers were initially experienced and well-trained. CDM clients, and CDM clients with family providers in particular, were significantly more likely to perceive their providers as currently competent and well-trained.

CDM providers are significantly more likely to have access to and be willing to consult doctors about clients' medical problems. Seventy percent of CDM providers (80 percent of family providers and 60 percent of non-family providers) as compared to only 16 percent of PMM providers said that they would seek advice about a medical problem from a doctor (presumably the client's doctor), whereas over half of PMM providers said

that they would seek such advice from their agency supervisor. One-fourth of CDM providers as compared to fewer than 10 percent of PMM providers said that they would talk to the client alone about a nonmedical problem. Four-fifths of PMM providers said that they would consult their agency supervisor. Among those CDM providers who said that they would consult someone other than the client, CDM family providers were most likely to consult a doctor, whereas CDM family providers were most likely to consult a family member or friend of the client.

The propensity of CDM providers to turn to clients' doctors for advice may appear to be at serious odds with the whole ethic of "client direction." However, before coming to such a conclusion, we might want to stop and ask whether it is very likely that providers would even know how to get in touch with their clients' doctors unless the clients themselves were willing to share this information with them. In other words, if CDM providers feel free to consult their clients' doctors, such behavior may in truth be best understood as reflecting the high degree of intimacy and trust that tends to characterize the relationship between CDM clients and their providers.

Provider Wages, Benefits, and Working Conditions Across Models and Provider Types

Worker compensation is very different in the two service delivery models. (See Table 8.) The average PMM provider reports earning \$6.22 per hour--about 30 percent more than CDM workers who are paid at or barely above the minimum wage (which was \$4.75 per hour when the study was conducted). Differences in benefits are even more striking. CDM providers almost never receive fringe benefits such as travel reimbursement, paid vacation, sick pay or health insurance. In contrast, two-thirds of PMM workers receive paid vacations and three-fifths receive travel reimbursement. Over a third of PMM workers receive paid sick leave and nearly two-fifths receive health insurance.

Moreover, although reports of problems with paychecks for IHSS work were relatively few, such problems were significantly more likely to be reported by CDM as compared to PMM workers. (PMM workers are paid by their agencies; CDM providers must mail in time-sheets, signed by their clients, and receive their paychecks from a payrolling firm under contract to IHSS). In two areas (transportation and scheduling), PMM providers reported significantly more problems than CDM providers.

For the average IHSS worker, the program provides slightly less than a full-time job (fulltime being defined as 35 or more hours per week). Across models and provider types there were no statistical differences in average weekly hours of work: providers reported working, on average, between 30 and 34 hours per week. Roughly half of providers, across both models and types, said that they would like to work more hours.

There have long been anecdotal reports of clients supplementing provider wages, particularly the wages of CDM providers, because of low pay. This is a sensitive issue because IHSS program rules prohibit such supplemental pay. Across models and

provider types, only 10 to 14 percent of providers reported receiving extra pay from clients and these differences were not statistically significant. However, when clients were asked whether they have used their own money to pay IHSS providers more because of low pay, 27 percent of CDM clients as compared to 7 percent of PMM clients said that they had. Within the CDM, 32 percent of clients with nonfamily providers said that they had supplemented provider pay as compared to 22 percent of clients with family providers. These client-reported differences in supplemental wage payments were statistically significant. If client reports are more accurate than provider reports, the real differential in PMM and CDM wages may be somewhat lower than the official wage rates would indicate. However such "under the table" wage supplements paid from clients' own funds are problematic because IHSS clients are all low income and can scarcely afford to make such payments.

C. Client Outcomes: Service Model Impacts and Other Predictors

This section discusses the results of multiple regression analyses. These analyses were carried out to determine the effects of service delivery model (including the differential impact of family members as service workers within the CDM) with respect to five client outcome areas (on a total of fourteen measurement dimensions) and two provider outcome areas (on a total of ten measurement dimensions). The discussion also notes which non-model explanatory client variables (such as age, degree of severity, number of workers in the past year) and worker variables (such as age, education, experience, training) were statistically significant predictors on which client and worker outcome measures. Table 9 summarizes the outcome measures for which service models (PMM or CDM) or CDM provider types (family/non-family) emerged as statistically significant predictors. Readers interested in the detailed results of the regression analyses for each measurement dimension are referred to the technical appendices.

Client Safety

The client safety area has two dimensions--client-perceived physical and psychological risk and client sense of security. The "perceived risk" dimension summarizes client reports of having experienced abusive, frightening, or harmful behaviors by their providers (i.e, yelling, threatening, possible stealing, pushing or shoving, neglect, injury, alcohol use, unwanted sexual advances). The "sense of security" measure reflects client's feelings of being safe or unsafe with their aides and their perceptions of how well they get along with their aides. Neither of these safety measures was significantly influenced by service model type.

That model type does not predict client safety is an important finding because proponents of the PMM argue that clients are safer under this model of service delivery. Indeed, the presumed superiority of professional management in safeguarding client safety is so taken-for-granted that even some advocates of client direction believe that a CDM requires clients to make trade-offs between independence and risk and often base

their advocacy of the CDM on a defense of clients' "right to risk." However, at least in California's IHSS, the client-reported incidence of abuse, neglect, and mistreatment is equally low in both service delivery models. Within the CDM, however, type of worker is a significant predictor of clients' sense of security with clients who have family providers experiencing a significantly greater sense of security.

Several non-model factors emerged as significant predictors of client reports of having experienced various forms of provider abuse. Clients who needed less paramedical help, those who had fewer workers in the past year, those who were more confident of backup help from family and friends, and those who used fewer formal services (other than IHSS) reported fewer incidents. Paradoxically, clients who said that they did not have someone to turn to for advice also reported fewer incidents of provider abuse. These findings suggest that, as might be expected, clients with the highest level of dependency are most at risk for provider abuse, regardless of which service model they are in. On the other hand, greater access to and reliance on informal as opposed to formal supports appear to protect clients from incidents of provider abuse. The one predictor that is counter-intuitive and difficult to interpret is that not having anyone to turn to for advice is associated with fewer reported incidents of provider abuse. It may be that some clients who are able to remain in the community despite lack of informal supports are unusually self-reliant and capable of looking after their own safety--but these are only hypotheses that would require testing in further research.

With respect to sense of security, clients who felt significantly more secure were more likely to be White (rather than Latino or Asian), believe they were not receiving enough IHSS service hours, live alone, are more confident of having backup help, have known their workers before hiring them, and have no language problems with their workers. Several of these relationships suggest that ease of communication with the worker and trust in the worker based on a prior relationship positively influence clients' sense of safety.

That those who live alone should feel more secure seems more surprising because other findings generally point to the importance of informal supports in making it less likely that clients will actually experience threats to their safety. Perhaps those who live alone are a self-selected group who are unusually self-reliant and "fiercely independent." In other words, clients who live alone may feel more secure because they are more comfortable taking risks and are more confident in their own abilities to take care of themselves. Alternatively, those who live alone may perceive themselves to be more dependent on their workers, choose their workers more carefully, and, for that reason, feel safer with workers whom they trust. More research is necessary to understand the dynamics at work here. The issue is of interest because the disability rights movement has tended to equate independence and autonomy with being able to live alone and not relying on informal supports.

Client Empowerment

The client empowerment outcome area has three measurement dimensions within it: service choice and satisfaction, preferred role, and client assertiveness. "Service choice and satisfaction" measures client satisfaction with the amount of choice they had in four service areas (which provider, which tasks, how tasks were done, and when they were done) and the amount of choice clients had, particularly with respect to which tasks are done and how tasks are done. "Preferred role" measures client preferences for training and supervising their own workers. "Client assertiveness" reflects clients' desire to have a major say and feeling comfortable giving directions.

Service model is a strong predictor on two of these measurement dimensions: service choice and satisfaction and preferred role. Clients in the CDM as compared to the PMM and, within the CDM clients with family as compared to non-family providers, reported significantly more satisfaction with respect to amount of choice as well as more actual choice and greater preference for taking charge of training and supervision.

Other non-model related variables also emerged as significant predictors. Clients under age 65 reported greater sense of service choice and satisfaction as did clients who reported having enough service hours, those with more informal supports, those with fewer formal home supports, those who had no language problems with their workers, and those who received extra service hours from their workers. Clients who felt more favorable about training and supervising their workers included those who needed less paramedical help and those who were currently supervising their workers.

On the third dimension of empowerment, *client assertiveness*, on which there were no significant differences related to service delivery models, other variables related to client characteristics were predictive. Clients tended to be more assertive if they were White (rather than Latino or Asian), needed more help with paramedical tasks, received more unpaid hours of help, were more confident of backup help, did not have language problems with their workers, and currently supervised their workers.

These findings are interesting because they in some respects support, yet in other ways tend to contradict, the view that empowerment comes primarily from clients having clear "employer/employee" relationships with their workers. On one level, it appears that practice makes perfect: clients who supervise their workers feel more assertive and confident about taking charge. Alternatively, perhaps the empowerment measures themselves are not entirely "outcomes" of client experience but reflect, at least in part, pre-existing personality traits, such as self-confidence and assertiveness. In other respects, it appears that clients may feel more willing to be assertive and more comfortable with taking charge when they have hired someone they already knew, when they have the protection of other informal supports, and when they get positive feedback from workers in the form of extra unpaid hours of assistance.

Client Unmet Needs

Service model and type of worker within the CDM proved unrelated to client perceptions of unmet need. With respect to unmet ADL needs, non-model predictors include demographic variables, severity of disability and type of service needs, and use of informal/formal services. Clients who reported fewer unmet ADL needs were significantly more likely to be White (rather than Black), never married, classified by IHSS as having "severe" disability (needing more than 20 hours of aide services per week) while also having comparatively lower ADL impairment scores on their assessments, and to need less paramedical help. In addition, clients reporting fewer unmet ADL needs were significantly more likely to report having enough service hours, to be more confident about access to backup help, to report more informal support and lesser reliance on other formal in-home and community-based services, and to report no language problems with their workers. For unmet IADL needs, the non-model predictors were very similar to those for unmet ADL needs. These findings are interesting primarily for the hypotheses they raise about how persons with severe disabilities eligible for IHSS may react to the program's service cost limits, depending on availability of other supports. Clearly, clients with low need are likely to be able to get their service needs met through the IHSS program. However, clients with very high service needs may not be able to obtain all the ADL and IADL help they require through the IHSS program because of restrictions on eligible hours. Clients who are able to count on receiving substantial amounts of assistance from informal helpers are less affected by limits on how many paid hours of assistance they can obtain through the IHSS.

Client Satisfaction

Client satisfaction is the most complex of the client outcome areas, with five dimensions: client-perceived technical quality of care, worker shortcomings, service impact, general satisfaction, and worker interpersonal manner. "Technical quality of care" reflects client assessments of their providers' competence and adequacy of preparation as well as clients' perceptions of the quality of their providers' services, their providers' receptiveness to direction, and the role the provider plays in keeping the client's home neat and orderly. "Provider shortcomings" reflects client perceptions as to whether the provider needs to be more respectful and to listen better as well as whether or not the provider hurries too much. "Service impact" reflects the extent to which the client perceives the provider as making it easier for him or her to do things inside and outside the home. A fourth factor, "general satisfaction" captures client satisfaction with the way their personal care and housekeeping needs are being met. Finally, "interpersonal manner" reflects client perceptions of the closeness of the relationship between themselves and their IHSS workers. On two of these dimensions--technical quality of care and service impact--CDM clients reported significantly higher levels of satisfaction. There were no significant differences in model impact on the other three measures. However, on one of these measures--interpersonal manner--CDM clients with family providers rated their workers more highly than those with non-family

providers. There were no significant differences in impact on the other measurement dimensions by type of worker.

Again, there were several non-model-related predictors of more desirable outcomes on each of these dimensions. The variables significantly related to greater satisfaction with technical quality of care included marital status (those not currently married reported higher satisfaction), being less severely impaired, having paralysis, reporting enough service hours, lower worker turnover (i.e., those who had fewer workers in the last year), and receiving more unpaid hours of service. Clients who reported significantly fewer worker shortcomings tended to be White (rather than Latino or Asian), unemployed (as compared to employed or retired), have better memory-oriented judgment, have had fewer workers during the last year, be more confident of backup, and to report receiving more unpaid hours. With respect to the service impact dimension, clients who were significantly more satisfied tended to be younger (under age 65), White (rather than Latino), users of equipment, and more likely to report having someone to turn to for advice. On the general satisfaction dimension, clients who were significantly more satisfied tended to be those with better memory-oriented judgment, those reporting enough service hours, those more confident of backup help, and those reporting no language problems with their workers. Clients who were significantly more satisfied with their workers' interpersonal manner tended to be those not currently married, those with less than a high school education, those who reported not having someone else available to help on short notice, and those who were previously acquainted with their workers.

Client Quality of Life

Client quality of life has two measurement dimensions: emotional and social well-being and physical well-being. The emotional and social well-being dimension reflects clients' sense of isolation, general life satisfaction, satisfaction with social activities, and frequency of feeling downhearted and blue. The physical well-being dimension reflects clients' perceptions about the state of their general health, their energy level, and whether or not they reported pain that frequently interfered with normal activities. CDM clients reported significantly higher quality of life on the emotional and social well-being dimension than PMM clients. On the dimension of physical well-being, CDM clients with family providers reported significantly higher scores than clients whose workers were not family members.

With respect to other predictor variables unrelated to service delivery model, significantly higher levels of emotional and social well-being were reported by clients who were White (as compared with Latinos or Asians), currently married or never married (compared with divorced, separated, or widowed clients), had less need for paramedical assistance, reported receiving enough service hours, were more confident about backup help, who had fewer in-home formal support services (from sources other than the IHSS program), and who had live-in workers. Clients who reported significantly higher levels of physical well-being tended to be older (over age 65) never married,

Latino (compared with White), and male (the only client-outcome for which gender emerged as a significant predictor).

Statistically Significant Client Findings Summarized

Clients receiving services under the CDM had more favorable outcomes on six diverse dimensions of client outcomes, including two measures each of empowerment, satisfaction, and quality of life. There were no outcome measures on which PMM clients fared significantly better than CDM clients. Within the CDM, clients with family members as providers reported more favorable outcomes on four dimensions encompassing aspects of safety, empowerment, and satisfaction. There were no measures on which clients with non-family workers were found to have significantly better outcomes than those who hired family members as workers.

There are also clear messages from the statistically significant findings on what we have called non-model-related predictors. Four such variables emerged as especially important (that is, statistically significant in multiple client-outcome equations): confidence in ability to obtain backup help, clients' judgments that they were receiving enough service hours from the IHSS program, lower worker turnover (having fewer rather than more workers in the past year) and the absence of language difficulties between clients and workers.

For people whose ability to function depends on assistance from others, being assured of regular assistance is critical. Most PMM clients have confidence in agency backup help and most CDM clients have confidence in informal backup supports. However, sizable minorities of clients under both models worry substantially about whom to turn to for backup help (with no statistically significant differences among service delivery models).

Generally speaking, client judgments of adequacy of publicly-financed service hours reflect the willingness of public payers to allocate sufficient resources to meet client needs. As public programs go, California's IHSS is comparatively generous. Nevertheless, the existence of a fixed monthly expenditure cap (283 hours times minimum wage) guarantees that clients with severe disabilities and, as a result, very high levels of service need (in particular those whose needs for assistance and supervision are similar to those of nursing home residents) will not be able to access sufficient hours of formal assistance through the public program to meet all their service needs. This means that, the more disabled the client, the more likely he or she is to require a combination of formal services and unpaid assistance in order to receive enough help to meet his or her needs. Thus, at high levels of disability, clients who lack access to informal supports are greatly disadvantaged. Such clients probably cannot remain in the community and may be admitted to nursing homes or assisted living facilities. Moreover, because the hourly cost of services provided under the PMM is higher than that of services provided under the CDM, clients with very high levels of service need and little access to unpaid sources of assistance are less likely to be able

to secure sufficient hours via the IHSS to meet their ADL and IADL assistance needs under the PMM as compared to the CDM.

With respect to worker turnover, there are, of course, many factors involved--including the general labor market, agency needs, worker choice, client preferences, and client-worker incompatibility. Even so, number of workers in the past year does reveal something about the stability of the relationships between clients and workers. The pervasive presence of number of workers as an outcome predictor indicates that stability and continuity are important to client well-being, other things being equal. A majority of clients in both service models had a single worker in the past year. However, significantly more clients under the PMM had two or more workers than under the CDM. There are indications in the study that many agencies do not consider the continuity of client/worker relationships to be an organizational priority.

Finally, ease of communication between workers and clients is particularly important in what can be very intimate helping relationships. By far the majority of clients in both models reported no language difficulties with workers. Given the ethnic diversity of the IHSS clientele, this good news may be surprising. But it is also the case that more clients reported such problems under the PMM than under the CDM. This is undoubtedly related to the fact that threequarters of CDM clients choose workers who are family members, friends, or other persons previously known to them.

D. Worker Outcomes: Service Model Impacts and Other Predictors

Multi-variate analyses were also carried out to determine whether workers in the PMM and CDM and family and non-family providers within the CDM had differential outcomes with respect to measures of stress/burden and job satisfaction controlling for various client and worker characteristics which might independently influence these outcomes.

Worker Stress and Burden

The worker stress and burden outcome area covers six different dimensions of worker perceptions. These include worries about client safety, family issues (that is, workers' perceptions of positive versus negative family attitudes toward them; in particular, distrust of the worker by some family members), reports of problematic behavior on the part of clients (e.g., clients yelling at workers, getting upset, making unreasonable demands, or making sexual advances), workers' characterizations of the closeness versus distance and extent of mutual compatibility in their relationships with their clients, worker's self-reported positive or negative emotional states (i.e., feeling calm and serene, having lots of energy, feeling downhearted or blue) and feelings about appropriate client roles (i.e., workers' perceptions and feelings with regard to client assertiveness). Service delivery model was found to be a significant predictor of worker concerns about client safety, worker relationship with client, worker emotional state, and client role (Table 10). Workers under the PMM reported experiencing less stress in the

form of worries about client safety and more positive emotional states than workers under the CDM. Workers under the CDM reported significantly more closeness and compatibility in their relationships with clients and also were significantly more likely to report feeling comfortable with client assertiveness than PMM workers. Within the CDM, family providers appeared to experience more stress than non-family providers insofar as they were significantly more likely to report worrying about client safety and to report negative emotional states (e.g., feeling downhearted or blue, not feeling calm and serene, and not having a lot of energy) than workers who are not family members. However, non-family members felt more stress in terms of their relationships with their clients than did family providers (that is, non-family providers reported feeling less close to and less compatible with their clients). (See Table 10.)

With respect to non-model predictors of worker stress and burden, workers who reported less concern about client safety were more likely to be women, White (compared to Latino), to work with clients who do not have behavioral problems, and to report having only infrequent need for more information about how to do their work. Workers reporting less stress about family distrust and criticism were more likely to be those with more than a high school degree, lower hourly wages, and those who perceive they have more choice about their work. Workers reporting less stress about client behavior were more likely to have clients who are less impaired on ADLs, to have clients assessed as not having behavior problems, to not be living with their clients, to only infrequently need more information about how to do their work, and to feel they have more choice about how to do their work. Workers reporting less stress about their relationships with their clients are more often White (compared to Latino), have a second job, have clients who are less ADL-impaired, have clients who are less cognitively impaired, and have clients assessed as not having behavioral problems. Workers who report more positive emotional states are more likely to be Latino (compared to White), have less IADL-impaired clients, have clients without behavioral problems, work fewer hours with their clients, have more formal training, have more choice about tasks, and have more supervision. Workers who report fewer concerns about the client's role are more likely to be White (compared with Asians and Blacks), to have more education, to have another job, to not have children under 15, to have more clients, and to have more training.

Worker Satisfaction

The worker satisfaction outcome area covers four dimensions--role attributes, performance self-assessment, career benefits, and independence and flexibility on the job. Service model had no significant impact on any of these four measures. Being a family provider, however, was associated with being less satisfied with career benefits.

With respect to non-model predictors of the four dimensions of worker satisfaction, workers who feel more satisfied with their own role who are more likely to be White (compared with Latinos and Asians), to have a high school education, to have more years as a long-term care worker, to have clients without behavioral problems, to not live with their clients, to have fewer clients, and to report that they only infrequently

need more information about how to do their job. Workers are more likely to rate themselves higher on a self-assessment of job performance if they have a high school degree or more, have more formal training, and report that they only infrequently need more information on how to do their job. Workers who feel more satisfied with their career benefits and have higher job satisfaction are more likely to be Asian or Black (compared to White), to have less than a high school education, to want more work hours, to have more formal training, and to have more job supervision. Workers more likely to be satisfied with the independence and flexibility of their jobs are more often White (compared with Latinos), have clients with less impaired cognitive judgment, do not live with their clients, and to report actually having more independence and flexibility.

Statistically Significant Worker Outcomes Summarized

The interpretation of the impact of service model on worker outcomes is not straightforward. PMM workers report less worry about client safety and about their own emotional state. But CDM workers report less stress about their relationship with their clients and less stress about an assertive client role. This pattern suggests that PMM workers may attain a certain detachment from the pressures of their work--which is, indeed, encouraged by professional values--while CDM workers typically have more intimate relationships with their clients, including more acceptance of client-directed values. The evidence suggests, in other words, that both groups of workers have adapted to the definitions of their roles and priorities as framed by the service models within which they work.

With respect to types of worker, non-family providers report less stress than family providers about client safety, less stress in their own emotional state and more satisfaction with career benefits. It appears that family providers experience more stress because, as family members, they care more personally about their clients and feel a greater sense of individual responsibility for their clients' well-being. At the same time, family providers may be less satisfied with career benefits because they became home care workers for family reasons rather than because they were attracted to this line of work. Only with respect to satisfaction with the client relationship is being a family worker related to more positive scores. This is not surprising, since this outcome assesses emotional intimacy and familial ties can be expected to enhance this.

For non-model predictors, several factors show up in multiple equations. Workers who are Latino, Asian, or Black (compared to White) tend to report higher stress and less satisfaction. More education is also a prominent predictor of less stress and more satisfaction. Client behavioral problems, not surprisingly, increase several measures of stress (and reduce satisfaction).

III. CONCLUSIONS

Within California's In-Home Supportive Services Program, both the professional management and client-directed models of service provision are working well; that is, both models have clearly demonstrable positive outcomes for large majorities of both clients and workers across a range of measures. On many outcome measures both models appear to perform equally well. However, on several key client outcome measures, the consumer-directed model clearly out-performs the professional management model. Under the most rigorous of scientific comparisons--that is, with multi-variate statistical techniques controlling for variability in client characteristics such as severity of disability and differential availability of informal supports, the consumer-directed model of service provision yielded superior results on several measurement dimensions with respect to client satisfaction with services, empowerment, and quality of life.

We believe that these findings regarding client outcomes in the California IHSS program may be usefully applied by administrators of home and community-based long-term services programs in other states. However, one important caveat should be borne in mind by those who might seek to apply the findings of the study beyond the California context. This caveat is that IHSS program benefits are, by the standards of most other comparable state programs, relatively generous. This study found clients' perceptions of whether or not the hours of service authorized by the program were sufficient to meet their needs to be an independent predictor of differential client outcomes, regardless of service model. In California, it appears that the fixed monthly cap on IHSS expenditures per client does limit the ability of the program to meet the needs of some highly disabled clients who have little or no access to supplemental assistance from informal caregivers. At the same time, the formula for translating assessed needs into eligible hours and the monthly benefit cap are generous enough that most clients consider their benefit levels adequate or at least not seriously inadequate to meet their needs. In another state, with less generous monthly benefit limits, the percentage of clients with significant unmet service needs might well be much greater. This would likely result in less positive client outcomes for the program as a whole, irrespective of the mode of service provision.

We think it is especially important to point out the various ways in which the findings from this study differ from widely shared and well entrenched views about the advantages and disadvantages of professional management as compared to consumer direction. It is particularly striking, for example, that, in this study, the professional management model was not found to have better outcomes with respect to client safety. The professional management model has long been regarded by both its own advocates and advocates of consumer-direction as the "safer" approach. Indeed, advocates of consumer direction typically argue for their approach by defending consumers' "right to risk." In view of the widespread belief that the professional management model is the approach that minimizes client risk--albeit at the expense of restricting consumer choice and control--it was unexpected and surprising that the study

provided so little evidence in support of this conventional wisdom. Indeed, in the bivariate analyses, with respect to reported instances of neglect and suspected theft by providers, consumers in the consumer-directed model reported significantly fewer negative experiences--even though such negative experiences were infrequently reported by clients in either model. In the more complex, multivariate analysis, no statistically significant differences emerged between the two models on either of the two safety dimensions that consolidated consumer responses to a multiplicity of safety-related questions.

We believe that the results of this study with respect to client safety measures should lay to rest the notion that the consumer-directed model of service provision is best restricted to a minority of exceptional, "high-functioning" elderly and disabled individuals, whom professionals have assessed and found to be capable of managing their own services. In California, the overwhelming majority of elderly and disabled IHSS clients receive services through the consumer-directed model, with few untoward results. Although instances of abuse, neglect, and mistreatment were occasionally reported, consumers in the consumer-directed model reported such occurrences either less frequently or no more frequently than consumers in the professional management model.

Nevertheless, the CDM does place more demands on consumers, and concerns on the part of program administrators that some clients may find those demands onerous are not unfounded. The study found that approximately one-quarter of CDM clients had experienced difficulties recruiting a provider. Consumers in the PMM model do not experience such difficulties because it is the agency's responsibility to assign them a provider. It is important to note, however, that both the consumer-directed and professional management models expose consumers to a level of risk which causes distress to a significant minority by virtue of the inability of either model to ensure reliable backup assistance when a regular provider, is, for whatever reason, unavailable. In both the PMM and CDM, about one-third of clients reported that they worried about being able to access backup assistance. Because clients in the consumer-directed model rely primarily on informal supports for backup, whereas consumers in the professional management model depend primarily on the agency to send replacement workers, the professional agency model may be the better choice for severely disabled clients who cannot rely on informal helpers and who lack confidence in their own abilities to make alternative arrangements for backup help. Clearly, however, the finding that one-third of agency clients worry about access to backup assistance indicates that professional management fails to provide a subjective sense of security to a sizable minority of clients, many of whom may be receiving services through the PMM because it is supposed to guarantee a dependable source of assistance.

Some California counties which offer only the CDM have attempted to respond to concerns about the difficulties that some clients may face in recruiting providers or accessing backup assistance by offering various supportive services. Supportive services include maintaining worker registries or otherwise assisting clients in locating

and recruiting providers, helping clients screen job applicants, making training available, and assisting clients in monitoring provider performance and problem resolution. The research team identified 27 of the 58 counties offering the CDM model as also offering one or more of these supportive services. However, only three counties were judged to offer substantial assistance to CDM consumers in recruiting regular providers or securing temporary backup assistance.

Clients living in those CDM counties which offered some supportive services were significantly more likely to report receiving assistance from the county in locating a provider (33.3 percent as compared to 22.7 percent) and, more specifically, with finding their current provider (16.8 percent as compared to 9.9 percent). However, clients living in counties which offered supportive services did not report that they found a provider any more quickly or that locating a provider was significantly easier from them than it was for clients living in counties without such services. Methodological difficulties made it difficult to compare client outcomes between those counties where supportive services were and were not offered and, as a result, there may be advantages to clients of having these services available that the study was unable to measure. Nevertheless, it is apparent that some CDM clients could benefit from more assistance in meeting the challenges of consumer direction--especially those involving provider recruitment and ensuring access to backup workers.

The difficulties that many CDM clients face in recruiting providers--difficulties that are concentrated among clients who hire unrelated providers--raise troublesome questions about whether the hiring of family members is a true choice or just an "easy way out" for some clients. Nevertheless, the study's findings with respect to the employment of family providers indicate that clients who hire family members as their providers do have, on average, better outcomes than those who hire non-family members. Among consumers with client-directed workers, those who hired family members had significantly better outcomes on some dimensions of safety, satisfaction with services, and empowerment.

For a majority of IHSS consumers, the establishment of a close, emotional rapport between themselves and their providers appears to be the main guarantor that a provider will give "high quality" service. Although the data indicate that such interpersonal bonding can and does frequently take place between consumers and non-family providers, it appears to be all but assured when the provider is a family member.

Despite the concern of some experts that hiring family members could expose aged and disabled persons to greater risk of abuse, we conclude that this is not a major risk. Consumer-directed clients with family providers reported significantly fewer instances of abuse and neglect than clients with non-family providers. In bi-variate analyses, the hiring of family members was associated with significantly fewer reports of abusive or negligent behavior as well as with a greater subjective sense of security and a more positive perception of the rapport between consumer and provider. In multi-variate analyses, the hiring of family members was significantly associated with more positive outcomes with respect to the measurement dimension that emphasized clients'

sense of security. For many consumers, it appears that the sense of security that comes from hiring a family member as a provider is an enabling factor that makes them feel more comfortable taking on the challenges of "consumer direction." In other words, if 90 percent or more of IHSS consumers--as is currently the case--were expected or required to direct their own services but were not permitted to hire family members, it is far from certain that all 90 percent would be able to recruit workers on their own. It is also unclear whether the superior results that this study found to be associated with consumer direction could be sustained if the large percentage of clients who currently hire family providers were restricted to hiring non-family members. In future analyses of the data, we will explore differences in client outcomes between agency-employed non-family providers and consumer-directed family providers and differences in the characteristics of clients in the CDM who choose to hire family members or non-family members as their providers. In the meantime, the implication of this report's findings for program administrators outside of California is that they may wish to think long and hard before adopting a CDM that restricts consumers' choice of providers to non-family members.

The findings with respect to paid family providers are particularly noteworthy because--outside of California, Michigan, Oregon, Washington and a handful of other states--the use of public program monies to pay family caregivers remains controversial (Linsk et al., 1988). Many politicians and program administrators in other states strongly oppose the policy option of paying family members to provide services because they believe that the traditional ethic of "family responsibility" requires family members to provide these services free of charge. Opponents of paying family providers believe that such a policy can only result in substitution of publicly-funded services for informal care that families would otherwise have supplied. California IHSS officials interviewed in connection with this study counter that, in assessing each individual's level of need for publicly-funded services, county case-managers have been trained to identify and to subtract out the services (such as housekeeping and meal preparation) that family members living in the home who are not themselves disabled should be able and willing to provide without being paid. As such, California officials believe that the IHSS program probably does a better job of preventing the substitution of formal for informal services than some programs in other states where services must be provided through agencies or may only be provided by unrelated client-hired workers but no effort is made to take availability of unpaid family caregivers into account in the assessment of need for paid services and authorization of benefits.

The question of how many hours of unpaid help families would have been able or willing to provide in the absence of the IHSS program and its policy of permitting clients to hire family providers--and whether those unpaid hours of assistance would, by themselves, have been sufficient to maintain the client in the community--is not one that this study was designed, or could readily have been designed, to answer. The most that can be said on the basis of the data collected is that family providers were found to be significantly more likely than agency-employed or non-family, consumer-directed providers to also provide additional hours of unpaid assistance. Moreover, 20 percent of IHSS family providers were not previously providing unpaid assistance and roughly half

of family providers quit previous employment in order to be able to become IHSS providers. In our view, these findings suggest that, on balance, the advantages of permitting clients to hire family providers, in terms of ensuring access to combinations of both paid and unpaid assistance sufficient to meet assistance needs, probably outweigh the disadvantages associated with any marginal substitution of public funding for informal support which may also be taking place.

It is also important to note that family providers have a distinct advantage over nonfamily providers in that they are legally permitted to perform such paramedical or medically-related tasks as bowel and bladder care and administration of medications. Debates about appropriate training and certification requirements for home care aides often overlook the preemptive role of professional licensing statutes in determining who may and may not provide certain types of assistance. These statutes often severely restrict the role of non-professionals to provide necessary services, unless those individuals are patients' family members.

Clearly, there can be little purpose to requiring that home care aides receive training and pass certification test in the performance of medically-related "nursing" functions so long as state licensing laws continue to make it illegal for personnel other than registered or licensed professional nurses to perform such tasks, unless they are family members (USDHHS, 1997). This point must be borne in mind in interpreting the findings of the IHSS provider survey regarding the frequency with which various types of providers under the PMM and the CDM report providing paramedical services to their clients and report having received training in the performance of various kinds of tasks. Paramedical training is typically not provided to aides by home care agencies because in California as in most other states it would be illegal for such aides to perform these kinds of tasks. To protect themselves from legal liability, agencies tend to be quite strict in prohibiting their aides from giving in to client or family requests to perform paramedical tasks. The difficulty is that the IHSS data indicate that many clients, especially those who are severely disabled and therefore at high risk of nursing home admission, require assistance with medications or with paramedical tasks. The provider survey data indicate that many physicians and other medical professionals are willing to train family providers and even non-family, client-directed providers as well, on an ad hoc basis, in how to care for particular patients. However, it is understandable that home care agencies are unwilling to risk circumventing the law. Therefore, in the absence of modifications to state statutes regulating nurse practice, agency-employed aides under the professional management model will almost certainly remain greatly restricted in their ability to meet the medically-related personal assistance needs of many "high need" home care clients.

We have seen that, for most personal assistance services clients, the consumer-directed model of service provision has clear advantages. For workers, the picture is much more mixed. On subjective measures of job satisfaction, there were no statistically significant differences between workers in the consumer-directed and professional management models. Here again, the findings confounded the conventional wisdom in that worker satisfaction under both models was quite high

across a range of measures. The conventional wisdom has tended to hold that providing personal care to aged and disabled persons is "thankless" work and that most workers who take these jobs do so because their low level of education and training leaves them with few if any other employment options. In contrast, the provider survey data on IHSS workers indicates that the vast majority of workers like the work and that, assuming no difference in pay and benefits, they would not prefer other employment options. Answers to the survey questions indicate that the most rewarding aspect of the job for many workers is the gratification that comes from knowing that their clients need and, indeed, depend on their assistance. In this respect, being a personal assistance provider is from the providers' own point of view quite the opposite of a "thankless" task. Indeed, most providers say that their clients and their clients' families appreciate their efforts. This is an important point because it implies that for workers with relatively few attractive job opportunities, being a home care worker offers more intrinsic rewards than many other jobs with comparable pay and benefits (e.g., other service sector jobs such as restaurant, hotel, or office cleaning work).

By objective measures, however, worker compensation for IHSS workers is very different under the professional management and consumer-directed models of service provision. The average IHSS worker employed by an agency earns about 30 percent more per hour than a client-directed worker. The latter very seldom earn more than minimum wage. Differences in benefits are even more striking, with many agency workers receiving travel reimbursement, paid vacation, and health insurance and virtually no client-directed workers doing so. The worker survey data offers little indication that client-directed IHSS workers are generally aware of or resent that they are paid less and have less access to benefits than their counterparts who work for contract agencies. This may be because within the California IHSS system as a whole, the great majority of workers are client-directed workers. In other states, however, where the professional management model currently dominates, home care workers might well resent efforts by program administrators to introduce a consumer-directed alternative unless wages and benefits available to client-hired workers are commensurate with those of existing agency-employed workers.

Based on the provider survey data, the pay/benefit differential between client-directed and agency-employed workers in the IHSS cannot readily be explained by differences in worker qualifications. On average, client-directed workers do have slightly fewer years of home care work experience, but they are also better educated (that is, significantly more likely to have high school degrees and some college). Moreover, there are no statistically significant differences in PMM as compared to CDM consumers' perceptions of how well prepared their workers are--or were initially--to do their jobs. Moreover, CDM providers tend to service more severely disabled clients and, as we have seen, to perform more difficult tasks (i.e., more personal care and paramedical tasks in addition to housekeeping). For these reasons and because they have no organizational support, CDM workers shoulder more personal responsibility for ensuring the well-being of their clients.

The lack of a clear justification for the pay and benefit differential favoring PMM over CDM workers cannot help but raise questions about fairness, particularly when the data show that a significantly higher percentage of CDM as compared to PMM workers (about one-fourth of all CDM workers) hold second jobs even though most work only slightly under "full-time" in their IHSS jobs. It is also cause for concern that about one-quarter of CDM clients report supplementing worker wages with their own funds because the pay is too low. Clients on public assistance cannot afford to supplement their workers wages; moreover, such wage supplementation is against Medicaid rules.

In recent years, both labor unions and organized client advocacy groups have criticized the IHSS program for keeping CDM worker compensation at or barely above the minimum wage with nonexistent benefits. Indeed, this issue has spurred union organizing among CDM workers in California. Several years ago, the California legislature authorized the counties to set up organizational structures termed "public authorities" that were specifically designed to permit collective bargaining by unions on behalf of CDM workers (Kumar, 1998). A number of counties, including San Francisco and Los Angeles, have established public authorities. However, it has yet to be seen whether the creation of such public authorities will lead, as their proponents hope, to meaningful improvements in pay and benefits for CDM workers.

Finally, it is important to point out that the lower pay and benefits accorded to CDM as compared to PMM workers do not fully explain the greater cost efficiency of the CDM. In other words, even if CDM workers received wages and benefits on par with those PMM workers enjoy, unit costs in the CDM would remain lower because of the PMM's higher administrative overhead.

IV. REMAINING QUESTIONS

As always, a major study such as the IHSS study, at the same time that it produces new insights, also highlights important questions that remain to be answered. We have identified the following priority areas for further research:

1. ***Independent and mediating roles of race and ethnicity.*** Racial and ethnic variables emerged as significant predictors of differential client outcomes, independent of differences in outcomes attributable to service model type or family/non-family providers. These findings have proved difficult to explain or interpret. One hypothesis is that recent immigrant status rather than racial and ethnic background per se is the underlying causal factor behind apparent racial and ethnic differences. Additional research is needed to test this hypothesis. Moreover, additional research is needed to look comparatively at the forces operating on families of different races and ethnic backgrounds when they confront different service models or when public payment to family members is introduced into informal arrangements.
2. ***How to go about designing and implementing more effective support services to assist clients in meeting the challenges posed by client direction.*** The IHSS study found that, from the clients' perspective, the only really serious drawbacks associated with the client-directed model of service provision are the problems that a significant minority of clients face in locating and recruiting regular providers and in accessing backup assistance when regular providers are not available. Research and demonstration models are needed to develop and test new approaches to addressing these issues.
3. ***The role of personal assistance services, including alternative models of service provision and types of service providers, with respect to health maintenance and preventive health.*** Persons with disabilities are heavy users of medical care. Within the study sample, for example, nearly 40 percent were hospitalized in the past year. Supportive service providers are intimately involved in maintaining the health and functional capacity of these clients, but we know relatively little about their effectiveness in prevention and early intervention. Systematic evaluation of the impact of training modules in these areas would enhance our understanding of supportive home care and strengthen the links between acute and long-term care services. However, consideration of a broader role for home care aides with respect to the interface between acute medical and long-term care cannot be addressed without confronting the restrictions that medical and nurse practice statutes place on the kinds of medically-related tasks that non-professionals who are not related to their clients may legally be trained and authorized to perform.
4. ***Models of client direction for disabled children and their parents.*** More than 7,000 children are currently receiving in-home supportive services under IHSS.

5. **Worker benefits.** It appears ironic that so many workers who provide health-related services should lack access to health insurance coverage themselves, especially under a publicly-funded program. Health insurance is generally more affordable when it is provided as a group benefit. Research and demonstration efforts are needed to explore ways of making affordable group health insurance plans available to client-directed personal assistance workers.

6. **Variations on the Consumer-Directed Model.** Further research and experimentation with variants of consumer-direction will be highly useful to federal and state policymakers. Currently, the U.S. Department of Health and Human Services, in partnership with the Robert Wood Johnson Foundation, is sponsoring a "Cash and Counseling Demonstration and Evaluation." (Doty, 1998). This four state project was designed to experiment with a model of consumer direction that maximizes consumer choice and control by providing participants with a cash benefit which allows recipients to make more of their own decisions about and arrangements for personal attendant and related personal assistance services. The cash benefit may be used to purchase a wide variety of disability-related goods and services, including, but not limited to, the services of a in-home worker to provide personal assistance with ADL and IADL tasks. Classical experimental design methodology (i.e., random assignment of volunteer participants to treatment and control groups) will be employed to identify and evaluate the effects of the experimental intervention in a scientifically rigorous manner.

During the design phase of the Cash and Counseling Demonstration/Evaluation, preference surveys and focus groups were carried out in the four participating states (Arkansas, New York, Florida, and New Jersey) to gauge the level of client interest in the experimental intervention. These studies found high levels of interest in consumer direction among both elderly and disabled users of existing Medicaid-funded personal care and other home and community-based long-term care services and among family members who served as "surrogate decision-makers" for elderly and disabled Medicaid service users with Alzheimer's Disease and other significant impairments in mental functioning. (Simon-

Rusinowitz et al, 1997; 1998). Although the design of the Cash and Counseling Demonstration/Evaluation permits treatment group participants to manage their cash benefits themselves, the preference surveys indicate that most clients interested in consumer direction prefer to receive only limited amounts of the benefit in the form of cash that they then use to make their own purchases or to pay their own workers directly. Most clients surveyed indicated that whereas they prefer to hire and manage their own in-home workers; they also prefer to have a fiscal intermediary organization pay workers for them. Under this system (which is similar to the process in place for paying consumer-directed workers in California's IHSS program), the fiscal intermediary receives the cash benefit from the state on the consumer's behalf) processes payroll checks and makes applicable tax payments on behalf the client/employers for their individual workers. As of March 1999, the demonstration had been underway for four months in Arkansas but had not yet been implemented in the other participating states: Florida, New Jersey, and New York.

In addition, the Robert Wood Johnson Foundation has funded a grants program entitled "Independent Choices: Enhancing Consumer Direction for People with Disabilities." The grants program operates under the auspices of a Robert Wood Johnson Foundation National Program Office established at the National Council on Aging. To date, 13 projects have been funded. Four of the projects (in Missouri, Ohio, Oregon, and Minnesota) involve experimentation with models of consumer direction in Medicaid or other state-funded home and community-based long-term care services programs. (Nadash, 1998.)

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TABLES

TABLE 1. Client Demographics, by Service Model and Type of CDM Provider						
	PMM (N=584)	CDM (N=511)		CDM FamP's (N=240)	CDM NFamP (N=271)	
Age (%)						
18-44	11.0	18.0	***	18.8	17.3	*
45-64	38.9	28.4		22.5	33.6	
65+	50.2	53.6		58.8	49.1	
Gender (% female)	77.1	69.9	**	73.8	66.5	
Ethnicity (%)						
White	69.8	38.3	***	30.0	45.9	**
Hispanic	8.9	19.5		24.2	15.0	
Black	11.7	23.1		24.2	22.2	
Asian/pacific islander	1.6	11.6		15.8	7.9	
Other	8.0	7.5		5.8	9.0	
Education (%)						
Less than high school	36.6	49.4	***	57.4	43.0	***
High school	24.6	21.5		23.8	20.0	
Some college or more	39.2	29.1		18.7	37.0	
Marital status (%)						
Married	13.1	15.9	*	19.2	12.6	***
Widowed/Div/Sep	70.3	64.4		65.0	63.9	
Never married	16.6	19.8		15.8	23.4	
Live alone (%)	69.9	42.7	***	30.8	53.3	***
Persons in household (mean)	1.43	2.14	***	2.48	1.84	***
* p<0.05, ** p<0.01, *** p<0.001.						

TABLE 2. Client Functional Status by Service Model and Type of CDM Provider						
	PMM (N=584)	CDM (N=511)		CDM FamP's (N=240)	CDM NFamP (N=271)	
Rated "severe" (%)	13.2	51.9	***	54.2	49.8	
ADL scores ^a (%)						
0	55.4	21.4	***	18.0	24.4	**
1	18.1	22.2		18.0	25.9	
2	11.8	13.9		19.7	8.9	
3-6	14.7	42.6		44.3	40.7	
IADL scores ^b (%)						
0	2.4	0.6	***	1.3	0.0	**
1-2	30.6	7.1		3.8	10.0	
3-5	67.0	92.3		94.9	90.0	
Self-reported paralysis	4.3	13.1	***	11.7	14.5	
Used in the last month...						
Cane	48.2	39.5	**	46.0	54.4	
Walker	32.1	31.7		30.8	32.3	
Wheel chair	28.3	46.9	***	46.4	47.6	
Paramedical tasks (% needing help)	19.2	48.9	***	51.7	46.5	
Mem., orient., judgment						
No impairment	74.8	78.1		75.4	80.4	
Some impairment	25.2	21.9		24.6	19.5	
* p<0.05, ** p<0.01, *** p<0.001.						
a. Activities of Daily Living; e.g., bathing, dressing, transferring from bed to chair, eating, and going to the toilet.						
b. Instrumental Activities of Daily Living; e.g., housekeeping, meal preparation, doing laundry, managing money, and making telephone calls.						

TABLE 3. Client Access to Informal Health and Other (Non-IHSS) Formal Services						
	PMM (N=584)	CDM (N=511)		CDM FamP's (N=240)	CDM NFamP (N=271)	
Get unpaid help from relative and friends (%)	26.5	40.2	***	40.0	39.9	
Hrs/wk of unpaid help (mean)	18.6	35.7	**	43.8	27.5	*
How confident family/friends would provide help?						
Very/somewhat confident	55.4	71.9	***	84.0	61.6	***
A little confident	7.8	9.2		6.3	11.8	
Not very/not at all	36.8	18.9		9.9	26.6	
Who most likely available for backup? (%)						
Family/friends	9.8	59.7	***	74.2	47.0	***
Another provider	75.4	21.8		13.1	29.5	
No one	14.8	18.4		12.7	23.5	
Have someone to turn to for advice (%)	62.1	71.1	**	72.1	69.0	
# service in past year?						
Social services (0-2) (mean)	0.33	0.25	*	0.20	0.29	*
Community services (0-5)	0.49	0.27	***	0.19	0.35	**
Home services (0-4) (mean)	1.21	1.04	*	0.82	1.25	***
* p<0.05, ** p<0.01, *** p<0.001.						

TABLE 4. Client Service Experience, by Service Model and Type of CDM Provider						
	PMM (N=584)	CDM (N=511)		CDM FamP's (N=240)	CDM NFamP (N=271)	
# hrs/wk P. works for pay	10.3	28.3	***	27.8	28.9	
IHSS hours meet needs? (%)						
Much too low	10.5	22.7	***	25.2	20.7	
A little low	26.7	31.3		32.6	30.5	
Just about right-too high	62.7	46.0		42.2	48.8	
# P's in last 12 months (%)						
1	52.7	66.5	***	80.3	54.2	***
2	22.8	19.8		13.8	25.1	
3+	24.5	13.7		5.9	20.7	
# years with provider (mean)	3.0	3.8	***	4.3	3.3	**
% needing help finding P	45.7	7.8	***	6.7	8.9	
Provider recruitment (%)						
Found P alone	4.2	55.5	***	64.3	48.1	**
Found P with help	4.0	25.4		21.4	28.7	
P sent by agency	73.1	5.5		2.1	8.6	
Help from county	16.7	9.4		8.8	10.1	
Other	1.9	4.1		3.4	4.5	
Ever replaced a provider (%)	43.8	41.9		22.5	59.0	***
Time it took to get a new P						
Less than a week (%)	53.4	47.8		57.4	44.8	
A week or more (%)	46.6	52.2		42.6	55.2	

* p<0.05, ** p<0.01, *** p<0.001.

TABLE 5. Client-Provider Relationship, by Service Model and Type of CDM Provider						
	PMM (N=584)	CDM (N=511)		CDM FamP's (N=240)	CDM NFamP (N=271)	
P lives with client (%)	1.0	33.5	***	52.9	16.4	***
Knew provider before (%)	6.3	73.3	***	100.0	49.4	***
P's relationship to client (%)						
None	93.7	26.8	***	0.0	50.9	
Relative	1.7	47.3		100.0	0.0	
Friend/neighbor/acquaint.	4.5	25.9		0.0	49.1	
Same language (% yes)	91.6	98.0	***	98.8	97.4	
Difficulty due to language (% yes)	10.5	3.5	***	3.3	3.7	
Who responsible for supervising? (%)						
Client	40.7	62.3	***	54.8	68.6	**
Family/friend	3.0	9.9		10.9	9.1	
Provider	3.3	10.5		16.5	5.3	
Agency	39.6	3.4		3.0	3.8	
County/other	13.3	13.9		14.8	13.3	
Provider works without pay?	2.9	27.4	***	32.9	22.5	**
# hrs/wk P works w/o pay	0.4	6.6	***	9.3	4.2	**

* p<0.05, ** p<0.01, *** p<0.001.

TABLE 6. Provider Demographics by Service Model and Type of CDM Provider						
	PMM (N=365)	CDM (N=253)		CDM FamP's (N=122)	CDM NFamP (N=129)	
Age (%)						
18-44	33.5	43.7	*	44.2	44.0	
45-64	52.8	48.2		46.7	48.8	
65+	13.7	8.1		9.2	7.2	
Gender (% female)	96.4	81.8	***	81.1	82.9	
Ethnicity (%)						
White	31.7	41.0	**	41.3	40.5	
Hispanic	44.9	29.7		32.2	27.8	
Black	14.6	20.1		16.5	23.8	
Other	8.7	9.2		9.9	7.9	
Education (%)						
Less than HS dipl.	39.8	30.3	**	33.6	27.6	
HS dipl./GED	31.9	29.5		26.2	32.3	
Some college or more	28.2	40.2		40.2	40.2	
Marital status (%)						
Married	44.6	38.4	*	39.3	38.1	
Widowed/Div/Sep.	38.5	36.4		38.5	33.3	
Never Married	16.9	25.2		22.1	28.6	
yrs worked as P (mean)	7.5	5.1	***	4.3	5.8	*
Employment status prior to becoming provider (%)						
Employed	51.7	54.9		57.5	52.0	
Unemployed	42.1	37.4		36.6	38.8	
Retired/student/other	7.7	7.6		5.9	9.3	
Change in work situation after becoming provider (%)						
Quit job	77.1	40.2	***	41.5	40.0	
Modified work	11.4	25.2		27.7	23.3	
Continued as usual	11.4	34.6		30.8	36.7	
Has another job (%)	9.9	27.5	***	31.1	23.4	
Has children under 15 (%)	37.9	34.8		34.4	34.9	
Has disabled adult at home (%)	13.7	37.5	***	58.2	18.6	***

* p<0.05, ** p<0.01, *** p<0.001.

TABLE 7. Provider Training by Service Model and by Type of CDM Provider						
	PMM (N=365)	CDM (N=253)		CDM FamP's (N=122)	CDM NFamP (N=129)	
Amount of formal training (%)						
None	5.0	29.1	***	27.9	29.1	
Very little/some	39.0	39.0		45.1	33.8	
Quite a bit/a lot	56.1	31.8		27.1	37.0	
Training in past 6 months (%)	62.8	8.4	***	7.0	9.8	
Hrs of training past 6 mos (mn)	9.8	14.0		16.2	12.6	
Received training in: (%)						
Household chores	61.6	21.0	***	14.0	27.1	*
Transferring clients	74.6	48.2	***	49.2	48.1	
Bathing	74.9	41.7	***	41.0	42.0	
Parametrical/nursing trtmnt	20.8	42.5	***	44.6	41.1	
Personnel issues	81.0	39.9	***	40.2	40.3	
Source of training (%)						
Trade school/college	66.1	10.0	***	5.7	14.1	
Agency/provider/nurse	81.2	37.9		39.8	35.9	
Hospital/nursing home	4.9	27.8		36.3	19.6	
Other	7.8	24.4		18.2	30.4	
Preparation for home care (%)						
Excellent/Very good	59.3	67.9		65.3	70.6	
Good	31.1	22.2		23.1	20.9	
Fair/Poor	9.7	9.9		11.6	8.5	

* p<0.05, ** p<0.01, *** p<0.001.

TABLE 8. Worker Wages and Benefits by Service Model and Type of CDM Provider						
	PMM (N=365)	CDM (N=253)		CDM FamP's (N=122)	CDM NFamP (N=129)	
Hourly wages (\$/hour)	\$6.22	\$4.79	***	\$4.74	\$4.83	
Benefits? (%)						
Health insurance	39.4	2.4	***	1.7	3.1	
Paid sick leave	37.3	0.0	***	0.0	0.0	
Paid holidays	65.2	2.4	***	2.5	2.3	
Payment for travel	61.0	3.2	***	2.5	3.9	
Problems with IHSS paychecks? (%)						
Very often/often	1.6	3.6	***	0.8	6.2	
Sometimes	3.6	10.8		10.7	10.9	
Seldom/never	95.8	85.6		88.4	82.8	

* p<0.05, ** p<0.01, *** p<0.001.

TABLE 9. Is Service Mode, or Type of CDM Provider, a Significant Predictor of Client Outcome?		
Client Outcome Variable	Service Model (CDM or PMM)	Provider Type (Family or Non-Family)
SAFETY:		
Physical and psychological risk		
Sense of security		YES (Family)
EMPOWERMENT:		
Service choice and satisfaction	YES (CDM)	YES (Family)
Preferred role	YES (CDM)	YES (Family)
Client assertiveness		
UNMET NEEDS:		
ADL		
IADL		
SATISFACTION:		
Technical quality	YES (CDM)	
Provide shortcomings		
Service impact	YES (CDM)	
General satisfaction		
Interpersonal manner		YES (Family)
QOL:		
Emotional and social well-being	YES (CDM)	
Physical well-being	YES (CDM)	

TABLE 10. Is Service Model, or Type of CDM Provider, a Significant Predictor of Provider Outcome?		
Provider Outcome Variable	Service Model (CDM or PMM)	Provider Type (Family or Non-Family)
STRESS:		
Client safety concerns	YES (PMM)	YES (Non-Family)
Family issues		
Client behavior		
Relationship with client	YES (CDM)	YES (Family)
Emotional state	YES (PMM)	YES (Non-Family)
Client role	YES (CDM)	
SATISFACTION:		
Role attributes		
Self-assessment of performance		
Career benefit		YES (Non-Family)
Independence and flexibility		

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