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Recent Findings on Frontline Long-Term Care Workers: A Research Synthesis 1999-2003

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I. INTRODUCTION

The purpose of the synthesis paper is to review, summarize, and discuss the significance of available research findings on the frontline long-term care (LTC) workforce since 1999, in both home and community-based and nursing home settings. This paper builds on the review article by Stone (2001) that reviewed the seminal practice and policy research related to recruitment and retention of frontline workers in LTC. Writing in 2001, Stone noted the lack of empirical research and, in particular, of evaluations to determine the effectiveness of programs and policies intended to recruit and retain LTC direct care workers.

This paper provides an updated review of the status of empirical findings, focusing on what has been learned between 1999 and 2003. The primary goal is to learn what initiatives have worked to reduce LTC direct care workforce recruitment and retention problems. A secondary goal is to provide empirically-based insights on the factors that contribute to recruitment and retention problems. This paper is intended to help policymakers, providers, worker and consumer groups, and researchers create a framework for future evidence-based policy, practice, and applied research initiatives to address LTC direct care workforce shortages.

II. BACKGROUND

The paraprofessional LTC workforce--over 2.4 million nursing aides, orderlies, and attendants, home health aides, and personal and home care aides (USBLS, 2004a)--forms the core of the formal LTC system.¹ Direct care workers serve as the eyes and ears of the formal LTC system and provide most of the care in this system. Even with relatively high unemployment rates, LTC providers and state agencies responsible for LTC services are reporting unprecedented vacancies and turnover rates among direct care workers, ranging from 45 percent to over 100 percent annually for nursing homes. Most states consider direct care worker recruitment and retention major issues (NCDFS, 1999; PHI and NCDHHS, 2004).

Significant societal factors are converging that will likely result in a 21st Century LTC direct care workforce crisis, or "care gap," in the US. These dynamics include an unprecedented increase in the elderly population and those with chronic medical conditions, a decrease in the traditional pool of women available to provide formal care, fewer adult children available to provide care, and a potential increase in the need for paid care for elderly parents of dual-income and single-parent households. Policymakers and providers need to know what workforce initiatives have been shown to work to address the direct care workforce shortage.

Previously reported research (discussed in Stone, 2001 and Stone and Wiener, 2001) highlights a variety of factors associated with LTC direct care workforce recruitment and retention problems. These factors include but are not limited to: inadequate training; poor public image of the LTC direct care workforce; low pay; insufficient benefits; inadequate job orientation and lack of mentoring; little or no opportunities for continuing education and development within the position; poor supervision; emotionally and physically hard work; workplace stress and burnout; personal life stressors, such as problems with housing, child care, and transportation; lack of respect from residents' families; and, short staffing. In the past several years, states, providers, and worker groups have developed, implemented and, in some cases, evaluated a variety of initiatives to address these challenges. This paper gives an overview of the most recent evidence base on both problems and possible solutions, to inform future investment choices and initiatives.

III. METHODOLOGY

We review both published reports and articles, unpublished conference presentations and working papers reporting results of research and evaluations on recruiting, retaining, and sustaining a quality frontline workforce in nursing homes, home care, and assisted living facilities. The review updates research findings reported in a seminal piece by Stone (2001) to better understand the problems facing the frontline LTC workforce and to identify effective solutions to chronic shortages, high turnover, and training needs. Studies on the relationship between LTC staffing levels and quality of care were not included, as they are beyond the scope of this paper; however, studies that examine links between staffing levels and worker satisfaction or turnover rates are included in this review.

Research and evaluation reports and articles completed or initiated between 1999 and 2003 were identified using Internet searches, personal communication with researchers, and database searches (e.g., PubMed). Search terms used when conducting web site and database searches included: LTC workforce, recruiting, labor force, nurse aides, job tenure, employment practices, work environment, aging services personnel, paraprofessional personnel, and intervention strategies. While published articles in peer-reviewed journals generally were preferred, unpublished reports and interim progress reports were included if based on sound research methods. We include studies that use qualitative and/or quantitative methods. Initiatives that were at an early stage of development in the Stone (2001) article were investigated to determine if the research or evaluation was now complete. We also obtained relevant working papers and presentations at professional conferences (e.g., American Society on Aging, Gerontological Society of America) and made personal communications.

The studies abstracted and analyzed for this report fall into two main categories: (1) empirical research (i.e., results of surveys and qualitative studies) on direct care workers that describe their working conditions or further elucidate the causes of turnover; and (2) evaluations of the implementation and impact of public and private initiatives designed to improve the recruitment and retention of direct care workers (e.g., wage and/or benefit enhancements, new training programs, and revised certification requirements).

[Section IV](#) reviews studies on characteristics of direct care workers and the wages and health insurance benefits available. [Section V](#) synthesizes research on factors contributing to high turnover and chronic shortages. [Section VI](#) summarizes findings from evaluations of interventions designed to improve recruitment and retention of direct care workers. [Section VII](#) discusses the implications of these recent findings for public policies and provider practices that seek to expand and stabilize the labor pool of direct care workers, and for future research intended to support these initiatives.

IV. TRENDS IN CHARACTERISTICS OF DIRECT CARE WORKERS AND THE WAGES AND HEALTH INSURANCE BENEFITS OF THEIR JOBS

Eighty to 90 percent of direct care workers are women. About half of direct care workers are non-white, compared to one-quarter of all workers. The typical direct care worker is a single mother aged 25-54. Compared to the general workforce, direct care workers are more likely to be non-white, unmarried, and with children at home (GAO, 2001). Crown, Ahlburg and MacAdam (1995) conducted a comprehensive profile of nurse aides and home care workers based on nationally representative samples using data from the Current Population Survey (CPS) March supplements of the late 1980s. The profile compared demographic characteristics and work conditions for three types of aides: hospital aides, nursing home aides and home care aides. A new study by Yamada (2002) updated the data examined by Crown and colleagues, using the same data sources and methodology, in order to assess trends in the direct care workforce over the past 10 years from the late 1980s to the late 1990s.

A. Characteristics of Direct Care Workers

The study by Yamada found a number of important changes over this period. Compared to the late 1980s, home care aides in the late 1990s were younger, more educated and more likely to have children. While home care aides tended to be older than nursing home aides and hospital aides in both the 1980s and the 1990s, the mean age of home care aides declined in the 10-year period. While no data were available on citizenship in the late 1980s, home care aides were significantly less likely to be native-born US citizens than were nursing home and hospital aides in the late 1990s. Educational levels among aides have increased over the past 10 years; home care aides still have less education than other aides, but almost 30 percent of nursing home aides and home care aides have at least some college education.

With regard to working conditions, home care aides were more likely to work full-time and full year in the 1990s (46 percent) than in the late 1980s (29 percent), but still less likely to work full-time and full-year than nursing home aides (55 percent) and hospital aides (63 percent). Forty-two percent of part-time home care aides reported a preference for part-time work. However, 18 percent of part-time home care aides said they preferred a full-time job but could only find part-time jobs. Home care workers are somewhat more likely to have earnings from other work (23 percent) than are nursing home aides (20 percent).

B. Wages

Even with modest improvements in the working conditions for some groups of direct care workers over the last decade, these jobs continue to be characterized by low wages and limited benefits. According to Yamada's study of CPS data, median wages of home care aides increased slightly in the past 10 years (adjusted to 1998 dollars based on Consumer Price Index), from \$5.81 to \$6.00 hour, while both mean and median family income increased as well. However, median wages of nursing home aides and hospital aides declined, from \$7.29 to \$7.00 and \$9.81 to \$7.99, respectively. Family income for these two groups also declined over the 10-year period.² Hospital aides still have the highest wages of the three groups. In the late 1990s, nursing home aides and home care aides were more likely to be in poverty (16 percent and 22 percent, respectively) than the average population (12-13 percent).

Based on data from the Bureau of Labor Statistics' (BLS) National Occupational Employment and Wage Estimates (2002), the median hourly wage for direct care workers ranged from \$7.81 to \$9.59 in 2002.

This represents a median annual wage of \$16,250 to \$19,960, if the worker is employed full-time year-round. However, as noted earlier, many direct care workers work less than 40 hours per week or do not work the full year. Direct care workers work about 30 hours per week on average. Further, the wage figure does not take into account the wages of independent home care workers, who are not employed by any agency.

Konrad (2003) found that nursing aides who had left the health field were better off financially than those who remained in the field. The study compared North Carolina workers trained as nursing aides who remained certified to work as nursing aides in a health care facility with those who did not remain certified. Among those who lost certification to work as a nursing assistant since 1990 (called "inactive registrants"), the median 1998 wage was \$14,425 compared to \$11,358 for active registrants. The median wage for inactive registrants rose to \$17,359 in 2001 compared to \$12,877 for active registrants. So, while wages increased slightly over the last few years for certified nurse assistants (CNAs) in North Carolina, median wages remained lower for active registrants than inactive registrants.

C. Health Insurance Coverage

Two different analyses of the health insurance status of aides over the 10-year period (late 1980s to late 1990s) show somewhat different results. Yamada found little change over the 10-year period in employer-provided health insurance coverage rates for nursing home aides and hospital aides (about 42 percent and 62 percent, respectively). However, an increasing proportion of home care aides received employer-provided health coverage--14 percent in late 1980s versus 26 percent in the late 1990s. Yamada also found a substantial increase in the percentage of aides with Medicaid coverage, nearly tripling in all three groups of aides--to 11 percent of nursing home aides, 16 percent of home care aides, and 5 percent of hospital aides. While this suggests that the overall rate of insurance coverage increased, another study of CPS data found that among all three groups of aides, the proportion of those without any health insurance coverage grew from 18.6 percent in 1988 to 23.8 percent in 1998 (Case et al., 2002). Workers in the private sector accounted for all of the growth in the number of uninsured over that period. The divergence in findings by the two studies is not clear, but may be due to differences in the types of workers examined.³

Significant increases in the amount employees contribute to health insurance premiums in all sizes and types of work establishments in the past several years could have contributed to reduced rates of employer-provided coverage among the low-wage workforce. Between 1996 and 1999, the average annual dollar amount paid by employees for health insurance coverage rose from \$342 to \$420 (Branscome and Crimmel, 2002). As a percentage of the total premium, the increase was less than one percentage point (from 17.2 percent to 18.1 percent). Nevertheless, co-insurance premiums for LTC employees can be as much as 50 percent of the total premium (Michigan Assisted Living Association, 2001). For low-wage workers, this makes health coverage unaffordable. For example, a survey of nearly 200 direct care workers in Massachusetts found that one in four were uninsured in 2002, with uninsured workers reporting average income a third less than those who were insured (Hams et al., 2002). With even larger increases in the co-insurance rates charged to employees in the past few years, employer-provided insurance coverage may show further deterioration among low-wage workers (Robinson, 2002).⁴

V. FACTORS INFLUENCING THE SUPPLY AND TURNOVER OF DIRECT CARE WORKERS

Direct care worker occupations are predicted to be among the top fastest growing occupations, and those with the largest growth, among health occupations between 2002 and 2012 (Hecker, 2004; USBLS, 2004b). Estimates indicate that there will be 888,000 *additional* direct care worker jobs, an increase of about 34 percent (Hecker, 2004; USBLS, 2004b). Including both these new jobs and replacement jobs for retiring workers and those who leave the occupation, BLS projects that over 1.2 million new direct care workers will be needed over the first decade of the 21st century (Hecker, 2004; USBLS, 2004b). The demand for direct care workers in home- and community-based settings is projected to grow even higher than for institutionalized settings. Including job openings due to growth and net replacements, BLS projects a 56 percent increase in demand for home care and personal care aides and a 61 percent increase in demand for home health aides between 2002 and 2012 (Hecker, 2004; USBLS, 2004b).

According to a report by the Center for Health Workforce Studies (2002), precise numbers of workers are elusive for a variety of reasons. Many direct care worker jobs have few or no educational or training requirements, face inconsistent licensing laws from state to state, and lack clearly defined tasks, which makes it hard to track those who move in and out of these jobs. There are also independent home care workers hired directly by care recipients; they are not recorded as employed as direct care workers in government data systems (CHWS, 2002). One national study estimates that 29 percent of the direct care workers providing assistance to Medicare beneficiaries in the home are self-employed (Leon and Franco, 1998). Some data on direct care workers are available at the national level from the BLS and Centers for Medicare and Medicaid Services's (CMS) Online Survey Certification and Reporting system (OSCAR), but each has limitations that hamper its utility (CHWS, 2002).

Surveys and registries maintained at the state level yield some information and insights about trends in the supply of direct care workers over the past few years. For example, in California, the pool of active CNAs has declined by 15 percent from 120,000 in 1998 to 101,000 in 2000. The number of newly CNAs (25,388) did not keep pace with the number of CNAs who did not renew their certification (39,178) during this time period (Franks, et. al, 2002). In North Carolina, by contrast, between July 2000 to June 2002, the number of newly certified nursing assistants outpaced the number of CNAs becoming inactive; new CNAs grew from 85,148 in 2000 to 95,092 in 2002 (Konrad, 2003).

A. Factors Associated with Turnover

Recent studies on the turnover problem among direct care workers are providing some new insights. While most studies have gathered data directly from interviews with employees and employers, a recent study looked at the issue from a broader perspective. Brannon and colleagues (2002) examined factors that help to distinguish nursing facilities with very high and very low nursing assistant turnover rates from a middle referent group, exploring the possibility that high and low turnover are discrete phenomena with different precursors. With the exception of registered nurse turnover rate, low turnover and high turnover were not associated with the same factors. These findings suggest that future studies of facility turnover should avoid modeling turnover as a linear function of a single set of predictors. However, since there is no consensus on what constitutes optimal turnover rates, care must be taken in setting a low turnover rate cutoff based solely on statistical patterns (Swan, 2002).

Brannon examined turnover from secondary data. More common in the literature are studies based on interviews with CNAs or home health aides. Such studies are better able to explore the real-life experiences of direct care workers. However, such studies are more likely to encounter problems maintaining sufficient sample size throughout the study period. That was the case in a series of studies by Noelker and Ejaz (2001), who studied newly trained nursing assistants about to be employed for the first time in a nursing facility. Most of the recruited students were lost in follow-up interviews; some never

pursued nursing home employment and many did not intend to work as a nursing assistant when they took the training. Some claimed they entered training solely to meet requirements of the changing welfare system, while others did not keep scheduled appointments.

Despite these problems, Noelker and Ejaz were able to compare interview data from 1999-2000 with earlier studies conducted in the 1991-1993 and 1993-1994 period. They found that newly trained nursing assistants in the most recent period were more likely to be younger, unmarried, and minorities than those in the early 1990s. The group of nursing assistants in the late 1990s also expressed more worries about finances and family while at work. There were also noticeable increases in the proportion of nursing assistants reporting that they received inadequate initial training and that their supervisors did not acknowledge the importance of their observations about residents. Fewer reported a desire to continue working as a nursing assistant three years from the time of their interview. About one-third of nursing assistants in all three samples scored as being clinically depressed. Low pay ranked as the top source of job dissatisfaction in all three sample groups.

The relationship between supervisory staff and CNAs is an important contributor to worker satisfaction and turnover. Jervis (2002) explored direct care worker-supervisory relationships within the context of a "chain of command," based on ethnographic research. Findings confirmed the hierarchical organizational structure as nursing supervisors often used language such as, "delegate down" and "down at the unit level" in their conversations. Supervisory staff frequently attributed the cause of recruitment and retention problems to nursing assistants' personal problems, dysfunctional family structure, being irresponsible and lack of respect for the job. Rarely did supervisory staff mention organizational structure, or mistreatment or poor management by top-level staff, as a reason for turnover. Both the top- and mid-level staff complained about the amount of their time spent on paperwork, which causes them to be less connected to residents and direct care workers. Conversely, nursing assistants perceive their own work to be hard physical labor compared with their superiors, contributing to tension between nursing assistants and nurses.

A study by the California Association of Homes and Services for the Aging (CAHSA) and the Institute for the Future of Aging Services (IFAS) also finds this gap in perception between workers and supervisors. The team used surveys and focus groups with direct care workers and administrators, respectively, in California LTC facilities (Harahan et al., 2003). The study team found consistent complaints from direct care staff that they feel they are not valued or respected by their supervisors, coupled with the perception of charge nurses that they are not managers and have no need for management skills.

Bowers et al. (2003) conducted a study to determine why certified nursing assistants leave, using "grounded dimensional analysis" or in-depth interviews rather than structured interviews or survey instruments. This method allows nursing assistants to express their opinions on why they leave their job and how different factors influence their decision. This study confirmed many of the reasons previously shown as reasons for turnover, such as dissatisfaction with staffing and absenteeism policies, training and orientation practices, and low compensation. However, Bowers' analysis revealed that it was the perception that these policies and practices made CNAs feel unappreciated and undervalued, which in turn led to their departure from the job.

A multivariate analysis of data from a 1996 survey of nursing assistants employed in Louisiana nursing homes confirmed that professional growth, involvement in work-related decisions, supervision, and communication between management and employees were significantly related to both turnover and overall job satisfaction (Parsons et al., 2003). Previous research with direct care workers as well as

qualitative interviews with and observation of direct care workers in nursing home settings (Pennington and Magilvy, 2003) reflect these same findings.

B. Job Characteristics and Factors Associated with Job Retention

Hunter (2000) explored factors related to defining what determined a "good job" from the perspective of nursing assistants in nursing homes. Based on survey data from 152 facilities in Massachusetts, the study showed that aides' job preference was associated with facilities that had more private pay residents, skilled care, and religious or ethnic affiliation of the facility. These facilities tended to offer such benefits as employer-subsidized tuition, employer contributions to a deferred compensation plan, and higher wages and opportunities for wage growth. They also tended to have administrators with specialty training, while unions had a positive and significant effect on job quality, when niche markets were controlled. The study, however, did not look at the relationship between "good job" traits and retention.

On the home health side, Luz (2001) analyzed qualitative data gathered from interviews with independently employed home care workers who work without the oversight of an agency. Luz examined what led the workers to take, keep, and leave a job. Her findings suggest that these workers choose the profession as a vocation, choose clients with whom their relationships make a difference, like the ability to choose full-time or part-time work, and prefer independent work environments. Other issues that factor into independent workers' decision whether or not to take a job are family obligations, wages, whether other income and health insurance are already provided for them, entrepreneurial aspirations, personal health, and personal standards for good care services. A qualitative study of direct care workers in New Hampshire that included home health aides corroborates the perceived importance of work schedule flexibility, as well as having more time to spend on each client compared to working in a nursing home setting (Kopiec, 2000)

Based on ethnographic research involving 159 interviews and more than 100 hours of direct observation, Eaton (2001) concludes that five key managerial practices characterize environments with lower turnover and better retention of nursing staff. These practices are: (1) high quality leadership and management; (2) a practice of valuing and respecting nursing staff, especially direct caregivers; (3) positive human resource practices, both economic and non-economic; (4) a set of work organization and care practices that help to retain staff and build relationships; and (5) a sufficient staffing ratio to allow for the provision of high quality care. Eaton concludes that, "even in a complex system, one person could make a vast difference--particularly in a key leadership role in the facility, but also as charge nurse on a unit, or an HR or staff development person, as long as the individual had direct contact with the care giving decisions and staff members." While Eaton cautions that these practices need further large-scale randomized evaluation, she notes that they can be attained by most managers, or at least those who have discipline and compassion, are open to learning and innovation, willing to delegate responsibility and to hold managers and staff accountable, and spend significant time on the floor or unit.

Based on case studies conducted as part of the CAHSA and IFAS study of California LTC facilities mentioned earlier (Harahan et al., 2003), the attributes of a successful workplace environment appear to include: (1) clearly articulated expectations from management that direct care workers, ancillary staff and nurse supervisors are to be decision-makers and problem-solvers; (2) a timely feedback system as issues and problems are identified; (3) open door management policies that are based on trust, are without repercussions, and which include follow-up that addresses issues that have been raised; (4) blurred lines between CNAs and nurses, two-way accountability, and mutual respect and acknowledgement; (5) management styles which rely on mentoring and role modeling to transfer needed skills; (6) career advancement opportunities and the facility's support to pursue them; and, (7) a Director of Nursing with

strong leadership skills who is visible, accessible and intimately involved with resident care. While the pay-off of such strategies with respect to reducing staff vacancies and turnover and improving quality has not been systematically evaluated, the sites that employed these strategies, reported fewer problems with either recruitment or retention compared to the majority of respondents.

Victoria Parker and colleagues at Boston University School of Public Health are currently conducting a study that includes examining what job characteristics influence job satisfaction among certified nursing assistants in nursing facilities. Preliminary results, based on employees surveyed in 20 nursing homes in eastern Massachusetts, suggest that task identity, autonomy, and feedback from the job itself well predict job satisfaction for these workers (personal communication).

VI. EVALUATIONS OF INITIATIVES TO ADDRESS THE DIRECT CARE WORKER CRISIS

In the past several years, providers and states have implemented a variety of initiatives to improve recruitment and retention of the direct care workforce. In addition, a number of initiatives are currently being implemented that have an evaluation component such as the Better Jobs Better Care state demonstrations and the CMS Direct Service Worker state demonstrations. This section briefly describes LTC direct care workforce programs that have been evaluated in the past few years, emphasizing their effects, if any, on direct care worker turnover and/or retention.⁵ Several of these programs focus on one type of activity, such as peer mentoring, staff-family communication, career advancement, alternative management approaches, and wage enhancements for CNAs. Other programs are multi-faceted initiatives or aim to achieve broader organizational culture change. Finally, we look at the workforce component of a home- and community-based consumer-directed initiative, Cash and Counseling, as a mechanism for providing an additional labor pool of direct care workers.

A. Peer Mentoring

Hegeman and colleagues (2003, 2004) at the Foundation for Long Term Care conducted a CNA retention intervention and evaluation project entitled "Growing Strong Roots." The "Growing Strong Roots" peer mentoring program uses experienced CNAs to acquaint new CNAs with the customs, resources, and care values of the nursing home. The program is intended to supplement, not replace, the usual training of new CNAs.

The program includes four key components: (1) a six-hour orientation to the program for project coordinators, including a comprehensive manual on how to operate the program and evaluate it and newsletters for mentors that reinforce key concepts; (2) a six-hour training and manual for mentors to help them develop and/or enhance the leadership, communication, mentoring, and conflict resolution skills to be successful mentors; (3) a guide to orienting mentors' supervisors to the program, to gain facility support for the program; and (4) booster training sessions and manuals for mentors to reinforce the program. Trained mentors are matched with new CNAs. The mentoring relationship is usually active for eight weeks (more if needed), and mentors attend one or more booster sessions during this time and receive the newsletters. Each facility provides mentors a salary increase or other tangible benefits for the extra work involved.

Using a pre-post comparison group design with six nursing homes in New York state, the evaluation found a statistically significant 18-point increase in average retention rate among those who were

mentored while no significant difference was found among the comparison group. Data analysis has been limited by poor facility support in obtaining pre- and post-test data.

B. Enhanced Staff-Family Communication

"Partners in Caregiving" is an intervention designed to increase cooperation and effective communication between family members and nursing home staff. Cornell researchers developed and evaluated the program, which includes two parallel six-hour workshops, one for nursing staff and the other for family members (Pillemer et al., 2003). Trainings focus on communication and conflict resolution skills. Participants in the randomized, controlled study included 932 relatives and 655 staff members from 20 nursing homes. Positive outcomes were found for both family and staff in the treatment group. In addition to improved attitudes toward each other, families of residents with dementia reported less conflict with staff and staff reported a lower likelihood of quitting. The control group, on the other hand, showed an increase in likelihood to quit over the same two-month period. Job burnout remained stable among the treatment group staff but increased in the control group over the study period. Though the focus of the intervention is not on direct care workforce retention, the findings seem promising for both improving worker-family relations and possibly for enhancing workers' job commitment. Examining the effect of this intervention on turnover data, rather than just workers' perceived intent to quit, would be a valuable addition to the evaluation of this program.

C. Career Ladders

Based on the desire of some CNAs for upward mobility within their chosen field, career ladders have been promoted by some states and providers. Career ladders are intended to reward those who stay longer with more training opportunities and increased wages or other incentives. The Extended Care Career Ladders Initiative (ECCLI) was introduced in the fall of 2000 in Massachusetts as part of a broader Nursing Home Quality Initiative. It provided funds for several consortia of workforce training partners and LTC organizations to develop opportunities for direct care workers to increase their skills in order to reduce high turnover rates and vacancies among LTC paraprofessionals and improve the quality of care provided to consumers.

An evaluation of the implementation of ECCLI projects (Wilson et al., 2002) found preliminary evidence to suggest these activities had an impact. Through a case study approach, this evaluation documents activity and effects in six facilities that were selected to reflect a range of strategies, conditions, and partnership arrangements. Investigators interviewed frontline workers, supervisors, workforce partnership organizations, project coordinators, and other staff at participating nursing homes and home health agencies. They also observed project coordination meetings and technical assistance sessions and examined spreadsheet data from facilities on consortium activities, trends in each workplace, and recruitment costs. Their preliminary findings indicate some important implementation lessons for statewide workforce improvement initiatives:

- Training, wage increases, and establishing career ladders are the most frequently used interventions among consortia members.
- Multi-year, multi-faceted initiatives are essential in organizational change initiatives.
- Working with a workforce "network" rather than just individual providers is more effective.
- Organizing and sustaining culture change and training programs require serious investment at the facility level.
- Wage increases need to be of a meaningful size to workers (commensurate with their sense of their increase in skills and/or responsibilities) to have a positive effect.

- The support of nurse supervisors is critical to the success of ECCLI initiatives.
- Working relationships developed through the implementation phase have improved through increased teamwork and communication and the relationships that have formed between departments, as well as between aides and their supervisors.

Another study on the effects of a career ladder program, by Remsburg and colleagues (2001), examined a program involving a three-step career ladder in which nursing responsibilities are delegated to unlicensed nursing assistants. As in most states, where regulations restrict the nursing tasks that can be delegated to nursing assistants, this program required a waiver. The pre-post study design examined changes in nursing assistant retention rates, the time available to licensed nurses to perform higher-level clinical tasks, and clinical outcomes, such as wound infection rates. The incidence of adverse outcomes decreased or remained at zero for eight of nine clinical functions/skills after program implementation. No significant changes in retention rates for the career ladder staff occurred over the one-year period of the study. These results, however, reflect only one year of program implementation; this time period may not have been long enough to produce changes in retention, given the focus on initial implementation issues during the first year.

D. Alternative Management Practice

Building on studies that find dissatisfaction with the management practices typically used in nursing homes, an approach known as "self-managed work teams" (SMWTs) has been promoted as a way to give employees a greater say in how their work is organized (Yeatts and Seward, 2000). A pilot test of SMWTs was designed to empower CNAs, improve their job satisfaction, and improve resident care. The teams consist of CNAs who work together daily to serve the same group of residents, identify clinical (e.g., skin care, weight loss) or work (e.g., absenteeism, tardiness) areas needing improvement and share decision making about how to accomplish their work. The structure includes a rotating team coordinator, 30-minute weekly meetings, support from facility leadership, and periodic meetings between team representatives and facility leadership.

In their two-month implementation pilot at two nursing facilities, Yeatts et al. (2004) found that the teams improved: (1) interpersonal relations (e.g., discussion, understanding, apologizing, praising) among the CNAs, (2) communication between CNAs and nursing home leadership (e.g., better explanation to CNAs of reasons for certain practices), and (3) understanding of nursing home policies among CNAs. Lessons learned for successful implementation include surveying management to be sure they want nurse teams, nursing staff buy-in and support, orienting and training the managers, nurses, and nurse aides, and facilitating the teams through weekly meetings between team representatives and nursing facility leadership, leadership support for the teams, and keeping charge nurses informed of team developments. The research team is now conducting an impact evaluation with five experimental nursing homes in the Dallas-Fort Worth metropolitan area and five comparison nursing homes. The evaluation will examine whether SMWTs result in reduced turnover and absenteeism and improved performance among CNAs. Results will be available in 2005, after follow-up survey data are collected 12 months after team implementation.

E. Wage Enhancements

To stem the tide of nursing assistants and other frontline workers leaving the LTC sector, surveys conducted by Cushman and colleagues (2001) suggest that more competitive wages are needed. Just over half the states (26) funded a wage or benefit pass-through or other increase to benefit direct-care workers between 2000 and 2003 (PHI and NCDHHS, 2004). But how much of an increase is needed? Some

studies suggest that relatively modest increases in compensation should help to draw low-wage workers from other sectors. Holzer (2001), for example, cites estimates indicating that an increase in average wages paid to LTC workers of up to \$8 to \$9 per hour would make these jobs competitive for between six and 19 million low-wage workers. However, this is based on modeling projections and may not hold true in practice, or the results may differ depending on local labor market conditions.

Some recent empirical studies are beginning to shed light on this question. An analysis by Howes (2002) concluded that a near doubling in wages (not adjusted for inflation) for home care workers in San Francisco County over a 52-month period from November 1997 to February 2002, led to a 54 percent increase in the number of In Home Supportive Services (IHSS) workers, and a 17 percent drop in the proportion of the workforce in the job for less than one year. The wage increases followed passage of a Living Wage Ordinance at the county level and the establishment of a Public Authority to serve as employer of record for IHSS workers, which permitted union bargaining for higher wages. These results should be interpreted with caution as other external factors could have contributed to these workforce outcomes. For example, at the time of the first significant wage increase over the 52-month period, the CalWorks program was implemented; this required adults receiving welfare (TANF) benefits to enroll in welfare-to-work programs. Additionally, during this time, an innovative low-cost health plan called Healthy Workers was offered to any caregiver who worked a minimum number of hours and had been in the home care workforce for a specified time.

Some research with CNAs suggests that wage increases may need to be targeted, i.e. to those who stay longer or as rewards for providing good care (Bowers, 2003). In Wyoming, a mandated wage increase for certain types of direct care workers required differential minimum wages for new staff and those with 12 months of experience. A study of the impact of increasing direct care workers' wages on turnover was conducted by the Wyoming Department of Health (2002) for the Joint Appropriations Committee. About \$22 million were allocated by the legislature in 2002 specifically to improve the salaries and benefits of non-professional direct care personnel in adult developmental disabilities community-based programs, and minimum wages for new and longer-term workers were specified. As a result, total compensation (wages and benefits) for these full-time direct care staff increased from an average \$9.08 per hour to \$13.74 per hour, 51 percent over the first three months of implementation. According to the study, turnover dropped by nearly one-third in the three month period, from 52 percent to 37 percent. However, this may be too short a time period to judge whether such an effect was due to the wage increases or to other factors, and the study did not compare the results to any control group. A Kansas study found that one year after implementation of a wage pass-through program, annualized turnover rates for all positions (not just direct care workers) decreased only slightly from 111 percent to 101 percent, probably due to less-than-adequate funds to support the projected wage increases--only \$4.3 million were allocated for all positions.⁶

Data on the impact of wage pass-through programs on direct care worker recruitment and retention are limited and inconsistent. Findings across the few evaluations completed to date--and the lack of an appropriate comparison group in these studies--do not support the efficacy of wage pass-through programs or of a particular type of wage pass-through approach (PHI, 2003).

F. Multi-faceted Initiatives

The initiatives below include some combination of education in clinical and/or interpersonal communication skills, supervisory training, support groups, mentoring, and monetary incentives for direct care workers. Among these four interventions, WIN A STEP UP seems most promising because of its clear positive effect on reducing direct care worker turnover using a string evaluation design. However,

results from the other program evaluations do provide valuable lessons that can be used to inform the development, implementation, and evaluation of future workforce initiatives. Results from the Iowa Caregivers Association program show a positive effect on retention, but it is unclear whether all treatment facilities received the same set of interventions in the same way. The Kansas Long-Term Care Workforce Project study shows some positive results as well as highlights the challenges of implementing any workforce initiative when short staffing is common on a unit. The WETA program evaluation appears to reduce turnover; however, the much higher starting turnover rate among the comparison facilities compared to the treatment facilities may be confounding the intervention effects.

WIN A STEP UP. The acronym WIN A STEP UP stands for Workforce Improvement for Nursing Assistants: Supporting, Training, Education, and Payment for Upgrading Performance. This continuing education and payment incentive workforce improvement program is designed to reduce turnover of nursing assistants. WIN A STEP UP is a partnership between the North Carolina Department of Health and Human Services and the Institute on Aging of the University of North Carolina at Chapel Hill. The program operates solely in nursing homes. It is funded through civil monetary penalty (CMP) fines collected from nursing homes.

The WIN A STEP UP program includes 10 modules and accompanying detailed participant and instructor manuals that focus on clinical skills (e.g., pressure ulcers, infection control) and interpersonal skills and communication (e.g., working in a team, empathetic skills). Participating facilities must agree to commit staff time to implement the program and give either a retention bonus (\$75) or a wage increase (of at least 25 cents per hour) to participating nursing assistants starting three months after they complete the modules. In addition, the WIN A STEP UP program gives \$70 to nursing assistants for each module session they attend and \$75 to nursing assistants who complete seven or more of the modules and stay at the facility for at least three months after completing the modules. Annual turnover rates were significantly lower (15 percent) for nursing assistants in the program compared to those in the matched comparison groups (32 percent) (Konrad and Morgan, 2003). The program was active in 37 North Carolina nursing homes as of April 2004, with plans to involve 55 nursing homes (and 25 comparison homes) by July 2005.

Iowa Caregivers Association CNA Recruitment and Retention Project. In the belief that reducing shortages and turnover rates among direct care workers requires many changes in the way workers are treated and care is organized, some programs are intentionally taking a broader approach to the problem. For example, the Iowa Caregivers Association (ICA) managed the two-year CNA Recruitment and Retention Project. The project's goal was to reduce CNA turnover by assessing the needs of direct care workers in nursing facilities and providing programs and services responsive to their needs. Interventions implemented in facilities included: (1) CNA training in work skills (e.g. conflict resolution, team/building/communication) and clinical skills (e.g., communicating with dying residents, caring for Alzheimer's patients); (2) a CNA mentoring program, and (3) CNA support group activities. Community-based interventions included a public awareness campaign, CNA recognition programs, and CNA support groups facilitated by local community colleges.

The nursing facilities receiving interventions experienced significantly longer retention than those facilities which did not receive the interventions (18.96 months compared to 10.01 months). Two of the three treatment facilities showed progressively lower turnover during the course of the intervention period, while the third had increased turnover in the same period. Turnover data were not available for the comparison facilities (Findley and Richardson, 2000).

Kansas Long-Term Care Workforce Project. The Long-Term Care Workforce Project examined the impact of a three-part intervention--interpersonal skills and empathy training, biweekly support groups

and online supervisory training--on frontline nursing home employees' interpersonal relationships and their supervisors' capabilities. The project was conducted through a collaboration with IFAS, Kansas Association of Homes and Services for the Aging (KAHSA), and Wichita State University. The evaluation used a comparison group design (randomized at the work group level within homes) among seven mid-sized facilities of around 100 beds each, about evenly distributed between rural and urban locations. The nursing homes in the study were among the better nursing homes in the state, relative to quality of care records and reputation (KAHSA and IFAS, 2003).

As a result of the training, nurse supervisors felt more confident about their ability to communicate with, encourage, and effectively mentor members of their work team. However, the aides failed to detect any change in their own behavior or in their supervisor's behavior, beyond providing more feedback on their progress at work. This inconsistency may be because supervisors held fast to a belief that all work group members should be treated exactly the same, even after intervention training advocated taking into account each individual's uniqueness. As a positive outcome, work group members reported better interpersonal relationships with their residents after the training. Workplace stress ranked constantly high by aides and supervisors both before and after the intervention. The stress associated with chronic short staffing played a major role in the inability of the participants to apply and internalize the lessons learned from the professional trainer. Overall, the intervention caused some changes in attitudes and behavior among frontline and supervisory staff consistent with its teachings. The intervention also demonstrated an ongoing willingness to try to continue to implement behavior change, even in a difficult short-staffed work environment. However, the lack of a stronger response to the intervention is primarily attributable to the stress and tension associated with under-staffing (KAHSA and IFAS, 2003).

Worker Education, Training, and Assistance (WETA) Program. WETA was a three-year demonstration project conducted by Sager and colleagues (2003) in Wisconsin designed to improve job satisfaction and worker retention in participating assisted living facilities. The program was designed to provide education and training, financial benefits, access to emergency assistance with child care, recognition, and advancement opportunities. A pre-post comparison group design found no significant treatment effects for the intervention on employee satisfaction. In fact, employees in both treatment and comparison facilities showed decreased job satisfaction over the one-year data collection period. However, treatment facilities showed a marginally significant trend toward greater decline in turnover compared to comparison facilities. Comparison facilities' average turnover rate changed from 135 percent at baseline to 126 percent one year post-WETA, while treatment facilities' average turnover changed from 84 percent at baseline to 60 percent one year post-WETA (Sager et al., 2003). Because of the significant baseline differences between the treatment and comparison group facilities, interpretation of these results is difficult.

The WETA program team draws the cautious yet optimistic conclusion, however, that these differential changes provide some evidence that WETA may have influenced turnover rates among employees in treatment facilities. The withdrawal of 42 facilities from the demonstration because of financial difficulties resulted in the evaluation having only one year of results rather than two. The State of Wisconsin is presently developing a demonstration program as a result of the lessons learned from WETA.

G. Culture Change

Another type of multi-faceted intervention falls under the rubric of "culture change" which involves several mutually reinforcing initiatives, such as training in both clinical and "soft" (i.e. communication, problem-solving) skills; changes in management practices; and career ladders. Four culture change

initiatives--the Eden Alternative, LEAP, the Lyngblomsten House demonstration, and Wellspring--have been evaluated in the past few years, with the LEAP and Wellspring practices showing promising evidence of positive effects on direct care workforce retention.

LEAP. Project LEAP, which stands for Learn, Empower, Achieve, and Produce, is a workforce development program that aims to educate, empower, and retain nursing managers and staff in nursing homes. Its goal is to develop high quality, dedicated LTC leaders and staff that will result in better resident quality of life and well-being. Mather Lifeways and the Mather Institute on Aging, in association with Life Services Network (the Illinois affiliate of the American Association of Homes and Services for the Aging), developed and started the LEAP program in 1999. LEAP includes training for nurses and for CNAs. A six-week 18-hour workshop series for nurse managers and charge nurses addresses nurses' four key roles (leader, team builder, care role model, and gerontological clinical expert). A seven-week 17.5-hour workshop series for CNAs focuses on career development (e.g., training on person-centered care, communication skills, cultural sensitivity, building care teams, mentoring new CNAs, and working with families). LEAP also includes a two-level CNA career ladder that allows CNAs to advance within the CNA role and gain greater responsibility, mentoring, and small pay raises. LEAP aims to encourage a sense of pride among gerontological nurses and build a bridge between nurses and CNAs (Hollinger-Smith et al., 2002; Hollinger-Smith et al., 2003).

Program developers, Ortigara and Hollinger-Smith, believe that the success of LEAP is contingent on the commitment of top management to promote LEAP and sustain the program throughout the facility. For that reason, the first step in the LEAP process is an assessment of the organization and its management to determine its management style, readiness for learning, and capacity to implement and sustain LEAP.

Two LEAP test facilities experienced a significant reduction in nurse and CNA turnover rates after the program began. One facility went from a nurse turnover rate of 36 percent and a CNA turnover rate of 43 percent before LEAP to turnover rates of 16 percent and 4 percent, respectively, one year after implementation. The other facility went from a 75 percent nurse staff turnover rate and a 113 percent CNA turnover rate to 34 percent and 44 percent turnover, respectively, over one year after implementation. CNAs in the LEAP test facilities show statistically significant improvements in work empowerment, job satisfaction, and sense of organizational climate (Hollinger-Smith et al., 2003; Hollinger-Smith and Ortigara, 2004).

As of March 2004, 15 organizations in 14 states were signed up to complete the train-the-trainer workshops and implement LEAP. LEAP organizers are exploring ways to expand the CNA career ladder to a third level, in which a CNA-Level three would become a facility-wide resource on issues such as skin care or dementia care.

Wellspring. A team of researchers from the IFAS, the University of Wisconsin-Madison, and Texas A&M University evaluated the Wellspring culture change program, which represents a model for nursing home quality improvement and a process for organizational change (Stone et al., 2002). Wellspring started as an Alliance of 11 facilities in Wisconsin that developed a mutual strategy to improve clinical outcomes, conduct staff training and empower staff. The core elements of the Wellspring model include: top management commitment to the quality improvement approach; a shared program of staff training, clinical consultation, and education from a geriatric nurse practitioner; sharing of comparative data on resident outcomes; and, use of multidisciplinary care resource teams empowered to develop and implement interventions to improve quality of care for residents.

The evaluation team used a multi-faceted methodology including site visits, interviews and focus groups with residents, families and staff, participant observation, and analyses of secondary data from diverse

sources using a comparison group evaluation design. Rates of nursing staff turnover, including direct care workers, were lower or increased more slowly in Wellspring nursing homes compared to control facilities in Wisconsin. Wellspring facilities also showed improved performance on the federal nursing home survey. No additional increases in net resources were required and Wellspring facilities had lower costs than the comparison group. Staff members were more vigilant in assessing problems and took a more proactive approach to resident care, although clear evidence of improvement in clinical outcomes using MDS quality indicators could not be documented. Observational evidence and interview results indicated a better quality of life for residents and an improved quality of interaction between residents and staff.

The evaluation produced several key lessons for the successful implementation and sustainability of the Wellspring model and similar culture change initiatives:

- The philosophy of the culture change initiative must be aligned with the administrative, operational, and management structures.
- Staff nurses must be committed to work with and mentor nursing assistants.
- Having an organizing superstructure such as the Alliance helps facilities stay the course and is a key mechanism for improving quality within and across facilities.
- The full commitment of top administrative staff is required--use of training modules alone is not sufficient to change a nursing home's culture.

The Eden Alternative. Proponents of the Eden Alternative are committed to creating better social and physical environments for nursing home residents. The Eden Alternative is an approach to creating an elder-centered community where life revolves around close and continuing contact with plants, animals and children. A one-year comparison group study implemented in two nursing homes run by the same organization found no beneficial effects for residents in terms of cognition, functional status, survival, infection rate, or cost of care (Coleman et al., 2002). Further, the Eden site had more staff terminations and new hires than did the control site during the study period.

Lyngblomsten Service House. A fourth culture change initiative replicates a Swedish model of supportive living for nursing home residents, to bridge the gap between a medical model of skilled nursing facility and a social model of assisted living (Grant, 2002). Based in Minnesota, Lyngblomsten Service House residents live in a less institutional, more "home-like" setting than residents in a typical skilled nursing facility. They live in private studio apartments with full baths, kitchenettes, and a call system wired to pagers carried by "care assistants." Care assistants are universal workers, who carry out nursing, housekeeping, food service, and other activities. Care assistants work in self-directed teams. Residents are able to decide the timing of day-to-day activities (e.g., when to awaken and when and what to eat).

The two-year randomized (resident and family caregiver, but not staff) control group evaluation found positive impacts on quality of life among service house residents and family caregivers (Grant, 2002). However, it found no significant differences in staff job satisfaction or job stress. Nursing staff had some difficulty adjusting to the new model, due both to unclear direction about whom they should report to (the Director of Nursing or the Service House Coordinator) and to negative reactions to undertaking housekeeping and meal preparation duties. There was higher than anticipated turnover among care assistants in the program's first year, but after that the workforce stabilized. The implementation experience highlights some key lessons: (1) carefully screening care assistant applicants during recruitment helps to ensure that job tasks are consistent with expectations; (2) care assistants need clear information on whom to report to; and (3) sufficient training helps staff adjust to new roles.

H. Family and Friends as an Alternative Labor Supply

Cash & Counseling. Cash & Counseling is a national program sponsored by The Robert Wood Johnson Foundation (RWJF), the Office of the Assistant Secretary for Planning and Evaluation (ASPE) in the U.S. Department of Health and Human Services (HHS), and the Administration on Aging (AoA) also in HHS. The Cash & Counseling approach provides consumers with a flexible monthly allowance, counseling, and fiscal assistance, which allow them to direct and manage their own personal assistance services and address their own specific needs. Cash & Counseling intends to increase consumer satisfaction, quality, and efficiency in the provision of personal assistance services. A three-state Cash & Counseling Demonstration was implemented to compare the Cash & Counseling consumer-directed model with the traditional agency-directed approach to delivering personal assistance services.

Almost all of the demonstration recipients used the allowance to hire workers, in most cases hiring relatives or acquaintances (Phillips et al., 2003). Hiring family and friends accesses a source of assistance usually unavailable to traditional agencies, since these caregivers are motivated primarily by their relationship with the consumer rather than by employment as an aide. Treatment group members from the Arkansas demonstration were much more likely than control group members to receive paid care (Dale et al., 2002). In fact, consumers in the treatment groups in all demonstration states had difficulty hiring a worker if they did not have a relative or friend to hire (Phillips et al., 2002). These findings speak to the potential value of friends and family as an alternative labor pool for home- and community-based services, and to the need for programs like Cash and Counseling to facilitate linking quality workers with care recipients who do not have access to friends or family who can provide care. The RWJF, ASPE, and AoA have funded an expansion of the Cash & Counseling program through grants and comprehensive technical assistance to additional states that are interested in replicating, and in some states expanding on, this Cash & Counseling model.

VII. DISCUSSION AND CONCLUSIONS

This synthesis of the recent literature on problems and solutions to the LTC direct care workforce dilemma suggests possible candidates for broader replication and remaining gaps where further applied research is needed. Further, the synthesis raises the continuing need to see evaluation as an important component to building the evidence base for what works in the effort to develop a qualified, stable LTC workforce. In this section, we highlight what interventions the evidence shows works, limitations in study designs that impede the development of an evidence base, and on-going or future publicly- and privately-funded efforts that can help contribute to a strong evidence base.

A. What Works?

Stone (2001) noted the dearth of an evidence base in the literature up to the late 1990s. There have been more applied research and evaluation studies conducted in the past several years, and a number of evaluation efforts are currently in the field or planned for the near future. The designs used to evaluate the interventions described earlier vary in their ability to measure the effect of the intervention on outcomes of interest (retention and/or turnover). In determining what works among the interventions reviewed, we looked for a pre-post design and use of a comparison group. This quasi-experimental design gives one greater confidence (e.g., compared to no comparison group) that positive effects, if any, are more likely due to the intervention rather than to other competing factors that may have influenced the outcomes of interest. Three interventions reviewed seem appropriate for further replication because relatively robust evaluations (pre-post comparison group design) with clearly defined interventions have shown them to have positive effects on direct care workforce retention and/or turnover: (1) "Growing Strong Roots" peer mentoring for new CNAs; (2) WIN A STEP UP education and payment incentive workforce improvement program; and, (3) the Wellspring model of quality improvement and culture change.

Two additional interventions appear promising but would benefit from further evaluation--LEAP and Iowa Caregivers Association CNA Recruitment and Retention Project. The LEAP nurse supervisor and direct care worker training plus career ladder model has shown decreased CNA turnover and increased job satisfaction and work empowerment in numerous test facilities. However, the evaluation design does not use comparison groups and different test facilities measure turnover in different ways. LEAP evaluators note that finding truly comparable nursing homes is impossible because even within organizations that have several homes, there are many differences (due to different management, turnover rates, staffing ratios, etc.). With funding from the Health Resources and Services Administration, the LEAP team will follow LEAP-participating organizations over five years and look at organizational characteristics as well as resident indicators to see how these factors relate to worker perceptions and turnover (personal communication with Linda Hollinger-Smith).

The Iowa Caregivers Association CNA Recruitment and Retention Project consisted of a variety of interventions including CNA training, mentoring, and support groups as well as a community-level public awareness campaign and CNA recognition programs. The results from the pre-post comparison group design show a positive significant effect on retention. However, it is unclear whether all treatment facilities received the same set of interventions and, therefore, whether all components are necessary to have the positive outcomes experienced. Further work--to determine whether particular components of the multi-faceted initiative contributed most to increased retention, or whether treatment facilities receiving different components had different outcomes--would be helpful in determining whether this initiative (or particular components) is appropriate for replication.

Other promising models--such as self-managed work teams, WETA, and the Kansas Long-Term Care Workforce Project--are currently being evaluated, need more refinement based on current results, need better-designed evaluations, or have not measured actual turnover or retention among their outcomes. For other interventions, such as wage and benefits enhancements, more work is needed to determine: (1) how best to target them for optimal workforce outcomes (e.g., amount of wage increase, whether to link them to tenure or performance) and (2) the feasibility of this strategy in light of state budget cuts and Medicaid cuts.

All intervention studies, even those whose outcomes are inconclusive, contribute important lessons on what supports effective implementation. Though the substance of interventions varied, they often pointed to the same set of common implementation requirements. For example, management at all levels must have a sustained commitment to the initiative. In particular, nursing staff who serve as direct care worker supervisors must be committed to working with direct care staff. Staff also need to get clear, consistent messages and expectations about the intervention (i.e., what is being changed and why).

B. Challenges to Developing a Strong Evidence Base--What Needs to Be Done?

The evaluation findings reported raise some important issues about the challenges of conducting evaluations in the real world--namely, measuring longer-term effects, determining the replicability of effective models, the need to measure actual behavioral outcomes, like turnover, and using strong evaluation designs. Well-done evaluation takes time because it takes time for real change to occur with real people in real settings. Evaluating outcomes before there is sufficient time to expect any difference to occur, or not following up to see if change is sustainable, does not benefit policy or practice to the maximum extent possible.

Not only is it important to evaluate carefully an initial intervention (Beck, 2001), but to invest in replication efforts of interventions that have been shown to work in a particular setting or facility. The

devil truly is in the details when it comes to creating workforce change in LTC. The initial Wellspring model showed consistently positive outcomes; subsequent efforts to replicate the model among a different set of nursing homes in Wisconsin did not show similar positive outcomes. Rather than write off this lack of success as a loss, resources are needed to understand *why* the differences occur and what assistance and tools newcomers to Wellspring, or any evidence-based model, need to adapt and implement an effective model in their own context. As Stone (2001) found in the earlier review of evidence, intervention studies still focus on a specific setting. Work is needed to determine whether interventions found effective in one setting (e.g., LEAP in nursing home settings) are transferable to other settings (e.g., assisted living, other residential care settings, home and community-based settings).

In order to know what works to recruit and retain LTC direct care workers, evaluations need to establish whether interventions resulted in significantly decreased turnover and increased retention. These assessments require that evaluators have access to data that measure turnover and retention in the same way across all facilities. Currently, facilities measure these outcomes differently. Further, in some cases, as with the Partners in Caregiving intervention, evaluators do not measure turnover and retention (possibly because of the lack of available outcomes data) and instead look only at intent to quit.

The studies described varied in the type and quality of evaluation designs used. The classic randomized, controlled clinical trial epitomizes the ideal evaluation design, where randomizing study subjects allows the evaluator to determine whether the intervention caused a change in the outcome. In most evaluations conducted in real-life settings--such as with workforce interventions--randomized, controlled designs are often impossible. However, pre-post studies that use a valid comparison group composed of study subjects (workers) with similar characteristics in similar facilities to the intervention facilities are generally stronger than studies using no comparison group. Finding an appropriate comparison group and having them provide study data can be challenging. However, having a comparison enables evaluators to rule out some common alternative explanations for intervention findings, thus lending greater credence to the results.

Facilitating the use of evidence-based workforce practices requires more than just better-designed evaluation studies. The results of evaluation studies have not always been heeded. Sometimes, models that have been empirically shown to have positive intended outcomes do not receive wide dissemination or adoption (e.g., Wellspring), while other innovative approaches (e.g., wage pass throughs) with little or no evidence base are replicated more broadly. Resources and attention must also be paid to the effective dissemination of the results of studies to providers, policymakers, third-party payers, and regulators. Providers need training and technical assistance on implementing evidence-based practices (Feldman and Kane, 2003).

C. On-going and Future Efforts to Build a Strong Evidence Base

At a time when most states have been experiencing continuing challenges with LTC direct care workforce recruitment and retention, the Provider Practice database⁷ may be a welcome tool for providers and others looking for answers. IFAS and the Paraprofessional Healthcare Institute developed the database--a web-based tool containing 40 promising LTC direct care workforce recruitment and retention practices across settings. Although the intent was to include only those practices with an evidence base, most of the practices in the database have not been evaluated. Ideally, resources should be spent to evaluate these practices and contribute to the evidence base.

States and providers are implementing an array of initiatives, including those being funded by private foundations and the Federal Government. All of these efforts need to be tracked, the range of efforts

evaluated, and successful efforts disseminated with careful attention to what is needed to support effective replication. RWJF and the Atlantic Philanthropies recently funded a \$15 million grant program--Better Jobs Better Care (BJBC)--to support state-based policy and practice demonstrations in Iowa, North Carolina, Oregon, Pennsylvania, and Vermont. The state demonstrations are being evaluated by researchers at Pennsylvania State University.

BJBC is also funding eight applied research projects designed to advance knowledge about which programs and policies work best to recruit and retain high quality direct care workers in the LTC field. Several applied research grantees will examine organizational innovations and job training models that improve workforce recruitment, retention, and quality. Others will assess the potential of new labor pools, such as older workers and family members and friends, to meet future LTC demands. One study will measure the impact of wage and job benefit enhancements on workforce recruitment and retention. The BJBC program will also provide an opportunity for shared learning across states, providers, and worker organizations and allow wide dissemination of information across LTC settings.

As part of the national New Freedom initiative, HHS awarded nearly \$6 million in September 2003 to five state demonstration projects aimed at helping recruit, train and retain direct service workers. Three of these demonstrations plan to test offering health insurance benefits to workers to determine if that helps keep workers on the job. This Demonstration to Improve the Direct Service Community Workforce will grant \$1.4 million each to the New Mexico Department of Health, the Maine Governor's Office of Health Policy and Finance, and to Pathways for the Future, a service provider in North Carolina. Grants of \$680,500 each will go to the University of Delaware and Volunteers of America in Louisiana for developing educational materials, training of service workers, mentorship programs and other activities. Each of these grants is expected to conduct an evaluation of their efforts.

A number of culture change efforts and accompanying evaluation efforts are currently underway. Two examples include Rosalie Kane's evaluation of the Greenhouse in Tupelo, Mississippi, and Leslie Grant's evaluation of the Beverly Corporation's Resident Centered Care Program.

One of the myriad of challenges faced by those trying to develop evidence-based workforce strategies is the lack of consistent measures, such as turnover. As an example, both the CAHSA-IFAS project team and the LEAP evaluation team found that different LTC facilities use different ways to measure such outcomes as turnover. This challenge suggests the need for a resource of high-quality measures that can be used within and across evaluation studies.

As part of its National Initiative to Improve the Recruitment and Retention of the Paraprofessional Workforce in LTC project, ASPE funded IFAS to develop *Measuring Long-Term Care Work: A Guide to Selected Instruments to Examine Direct Care Worker Experiences and Outcomes*.⁸ The Office of Policy in the Department of Labor also contributed to its development. The Guide is intended to help providers, in collaboration with applied researchers, assess worker experiences and track how well their interventions are doing to improve the work environment and keep workers. The Guide includes measures on a variety of topics including retention, turnover, vacancies, worker empowerment, job design, and workload.

ASPE is also funding a national survey of nursing assistants in LTC to examine wages and workers' perceptions of their working conditions, workplace experiences, job responsibilities, and supervisor relationships. The survey will be fielded in the summer of 2004 in conjunction with the National Center for Health Statistics' National Nursing Home Survey. Results are currently planned to be available in December 2004 (PHI and NCDHHS, 2004). ASPE is also sponsoring a symposium in May 2004, of invited stakeholders from LTC and workforce development fields to discuss current available evidence about effective strategies for recruiting and retaining direct care workers.

The past several years have shown that the downturn in the economy has not solved the LTC direct care workforce problem. The challenge is only likely to become greater in the decades to come as societal forces merge to require more direct care workers across the country than are currently projected to be available. Effective workforce policy and practice must be founded on solid evidence. This paper reflects selected evidence-based practices that can be useful as we continue to explore how best to recruit and retain a qualified and committed LTC workforce.

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NOTES

1. In this report we use the terms paraprofessional workers, direct care workers, and frontline workers interchangeably to refer to nurse aides or assistants, personal care aides or assistants, home health aides, home care aides and others who provide paid hands-on assistance with bathing, eating, dressing and other activities of daily living for persons with disabilities.
2. As these are national averages, wages vary by state. For example, in California, wages in the late 1990s for nursing aides, orderlies and attendants were higher than the national averages: \$8.40 median hourly wage, \$8.78 mean hourly wage, and \$18,260 mean annual wage, assuming year-round, full-time hours. California home health aides have much higher wages than the national averages; in 1999, the median hourly wage for these workers was \$8.54, mean hourly wage \$9.73, and mean annual wage \$20,230 (Franks et al., 2002, based on data from the California Employment Development Department).
3. Case and colleagues used Census Bureau Occupational Classification codes 445, 446 and 447 for aides, while Yamada used 446 and 447 only.

4. According to a survey by Watson Wyatt & Company for the Washington Business Group on Health, released in March 2003, about 80 percent of employers plan to increase employee co-pays and/or premium contributions in 2003 in response to double digit growth in employee health care costs.
5. Not all studies measured both retention and turnover. As a result, we use the term "retention and/or turnover." For each study we reviewed, we report on results for whichever of these two outcomes the study measured.
6. The Kansas data were reported in, "State Wage Pass-Through Legislation: An Analysis", *Workforce Strategies*, No. 1, by Paraprofessional Healthcare Institute, April 2003. The source of the data is unclear.
7. The database was funded initially by ASPE and the CMS. The database can be accessed at <http://www.directcareclearinghouse.org/practices/index.jsp>.
8. A downloadable copy of the Guide is available at: <http://www.aahsa.org/FutureOfAging/LTCGuide.pdf>.