
# Trends, Issues, and Projections of Supply and Demand for Nursing Aides and Home Health Care Aides

## California Fieldwork

**Patricia E. Franks**
**Susan A. Chapman, PhD**
**Monique Nowicki, MA**
**Arnab Mukherjea**

**March 2002**

***The Center for the Health Professions, University of California, San Francisco***

# Trends, Issues, and Projections of Supply and Demand for Nursing Aides and Home Health Care Aides
# California Fieldwork

This study was conducted by The Center for California Health Workforce Studies within The Center for the Health Professions at the University of California, San Francisco as part of a national study. The national study was conducted by the Center for the Health Workforce Studies, State University of New York, Albany and supported by HRSA Grant #230-BHPr-12 (0) Health Research # 14-0020-01.

## The Center for the Health Professions

The mission of the Center is to assist health care professionals, health professions schools, care delivery organizations and public policy makers in responding to the challenges of educating and managing a health care workforce capable of improving the health and well-being of people and their communities. The Center is committed to the idea that the nation's health will be improved if the public is better informed about the work of health professionals.

## Project Staff

**Patricia E. Franks, BA,** Senior Research Associate, Allied and Auxiliary Health Care Workforce Project, UCSF Center for the Health Professions and UCSF Institute for Health Policy Studies
**Susan A. Chapman, PhD, MPH, MS, RN,** Project Director, Allied and Auxiliary Health Care Workforce Project, UCSF Center for the Health Professions
**Monique Nowicki, MA,** Research Associate, UCSF Center for the Health Professions
**Arnab Mukherjea,** Student Intern and Research Assistant, UCSF Center for the Health Professions

## Acknowledgments

We acknowledge the special efforts of staff of the Professional Certification Branch, Licensing and Certification Division, California Department of Health Services, as well as staff within the Labor Market Information Division, California Employment Development Department. They helped us understand some of the major data sources and data sets available, as well as the strengths and limitations of data, on the supply of and the demand for certified nurse assistants and certified home health aides in California. We also want to thank all of the other key informants who participated in this study for their time and their thoughtfulness in responding to our questions.

The findings, conclusions, and recommendations in this report do not necessarily reflect the views of the Center for Health Workforce Studies, State University of New York, Albany or the Bureau of Health Professions, Health Resources and Services Administration, U.S. Department of Health and Human Services.

# Trends, Issues, and Projections of Supply and Demand for Nursing Aides and Home Health Care Aides

## California Fieldwork

## Table of Contents

# Trends, Issues, and Projections of Supply and Demand for Nursing Aides and Home Health Care Aides

## California Fieldwork

## Executive Summary

### Purpose

This study assessed information on the supply of and the demand for certified nurse assistants (CNAs) and certified home health aides (HHAs) in California. These workers are the mainstay of direct care provided by California's more than 1,400 nursing facilities and nearly 800 home health agencies. This fieldwork study is part of a national study and one of four state fieldwork studies (California, New York, Illinois, and Wyoming) designed to review trends, issues, and projections of the supply of and the demand for nursing aides and home health aides.

### Objectives

Objectives of this California fieldwork study were: (1) to identify major state and national sources of data available on the supply of and the demand for CNAs and HHAs; (2) to provide information about the nomenclature used to describe these workers and their work settings; (3) to assess the accuracy, timeliness, and adequacy of data on supply and demand; (4) to identify types of data needed to guide workforce planning and policymaking; and (5) to recommend ways to improve supply/demand data on CNAs and HHAs. Recommendations in this fieldwork report were developed for California state government agencies only. Additional recommendations are presented in the final report of the national study.

### Methods

Key informant interviews were conducted to gather primary data from May through July, 2001. More than 30 state and local government agency, state trade and consumer advocacy organization representatives, as well as local agency representatives, including direct service providers, in one urban (San Francisco) and one rural (Sonoma) county, and other informants were interviewed. Follow-up was conducted during August and September, 2001. Relevant state and national reports and studies were also reviewed.

### Key Findings

1. There is a wide range in estimates, from 10,000 to 35,000 workers, of the current shortage of CNAs in California. Estimates specifically for HHAs could not be identified in this study.

2. Trends in the 1990s through 2001 show that the number of workers who choose to become certified as CNAs is not keeping pace with the number of workers who choose not to renew their certification. For example, in the period from July 1, 1998 through May 1, 2001, there was a net loss of more than 10,000 CNAs to the pool of potential workers.

3. More than 109,000 workers were certified to work in California's nursing facilities and home health agencies on September 1, 2001. About 66,000 were certified as CNAs, about 42,000, as CNAs/HHAs. Another nearly 900 were certified as HHAs.

4. Multiple federal and state agencies develop data related to labor supply and demand and to health facilities and their workers. The most useful state sources are the California Employment Development Department's Labor Market Division, the California Office of Statewide Health Planning and Development's Healthcare Information Division, and the California Department of Health Services' Licensure and Certification Division, through its participation in the federal Center for Medicare and Medicaid Services' OSCAR (Online Survey and Certification Assessment Reporting) System through the state's Automated Certification and Licensing Administration Management System (ACLAIMS) database for nursing facilities, and through its Aide and Technician Certification Section (ATCS) Registry.

5. The only source of data specifically on the supply side for CNAs and HHAs in the state is the California Department of Health Services' ATCS Registry. The Registry is located within the Professional and Certification Branch of the Department's Licensing and Certification Division. Although federal law mandates states to maintain a registry of CNAs, California's registry also contains information on the certification status of home health aides and hemodialysis technicians. The primary purpose of the Registry is to collect information on the certification of CNAs and HHAs and to provide verification of this information to potential employers and members of the public who request it. The Registry database has information on the potential pool of CNAs and HHAs available to work in California's nursing facilities and home health agencies.

6. The Registry's pool of certified workers, however, does not reflect the current supply of workers available. Data on supply are lacking about: the number of CNAs and HHAs actively employed, how many are working in nursing homes or home health agencies, how many are working in other settings (acute care hospitals, residential care facilities, or as in- home supportive services workers), and how many are working simultaneously in two or more work settings.

7. Other information on the supply side of the equation is also missing. An up-to-date picture of CNA and HHA training programs and students in these programs is not available, including how many students apply, how many enroll, how many drop out before completion, and how many complete programs, but do not apply for certification.

8. Key informants in this study identified several reasons that supply/demand data for CNAs and HHAs are deficient in California:

   - Inconsistent estimates of shortages
   - Lack of information and lack of agreement about dynamics of shortages
   - Lack of comparability of workforce data among major national and state data sources about specific types of workers and work settings
   - Lack of information specifically about certified workers
   - Lack of local and regional supply/demand information

- Lack of other specific types of supply/demand information
- Infrequency of reporting and timelags between reporting and availability of data and public access to data
- Lengthy data collection and verification processes
- Facility self-reporting bias

9. State and local policymakers, employers and trade associations, training programs, current and future workers, labor unions, consumer advocacy organizations, and others have different needs for data and use data for different purposes. These needs fall into four major categories:

    - information to improve recruitment and retention of students in CNA/HHA training programs and career ladder programs
    - information to improve recruitment and retention of CNAs and HHAs as direct care workers in nursing facilities and home health agencies
    - information to improve understanding of the current and projected supply of and demand for this workforce and the relationship to quality of care, access to appropriate levels of care, reimbursement for care, utilization of care, and costs of care
    - information to improve existing state databases, specifically "best practice" information from registries across the country.

10. Several ways to improve data for policymaking and planning were identified by informants. These include addressing workforce issues in the context of California's long-term care initiatives by emphasizing interagency collaboration, public-private agency collaboration, industry-education program collaboration, as well as focusing on workforce data issues in the context of improving the quality of care, access to appropriate levels of care, and understanding future long-term care needs in California.

**Conclusions**

1. This short-term California fieldwork study has provided an opportunity for a preliminary analysis of national and state data available on the supply of and the demand for CNAs and HHAs in California's nursing facilities and home health agencies and ways to improve these data for workforce planning and policymaking.

2. The findings of the study provide evidence that there are problems with available data on the supply of and the demand for CNAs and HHAs in California. The problems are with the timeliness, accuracy, and adequacy of data to meet multiple needs of multiple users.

3. These problems are serious because they result in apparent major discrepancies in estimates of current and projected shortages of long-term workers, specifically of CNAs, as well as in a lack of information about both current and future supply of and demand for both CNAs and HHAs. Without better data, workforce planning for nursing facilities and home health agencies in California will be difficult.

4. Long-term care is a looming crisis in California. One of the things needed to address this crisis is better workforce supply and demand data. Another thing is a common language to

understand the data--which groups of workers and which work settings are addressed by different data sources, data sets, documents, and reports, and what are the implications of the data for planners and policymakers. A third is agreement about the dynamics of supply and demand and the reasons for shortages.

5. The long-term care workforce has a direct relationship to the quality of care delivered, access to appropriate levels of care, and costs of care. Collaborative and strategic efforts are required in California to identify and prioritize data needs of users, to clarify specific purposes of any additional data reporting and collection efforts, as well as to assess the costs of gathering additional data and its usefulness and limitations for workforce planning.

6. This study occurred at a time when California has already taken major steps to respond to the urgency of long-term care issues. California's Aging with Dignity Initiative, which includes a $25 million Caregiver Training Initiative, addresses long-term care workforce issues. California's recently established Long-Term Care Council within the California Health and Human Services Agency is required to conduct numerous strategic planning activities aimed at improving the coordination of, access to, and the quality of long-term care services. Opportunities for the collaboration of the California Department of Health Services, Employment Development Department, and Office of Statewide Health Planning and Development have already led to improved efforts in workforce planning.

**Recommendations for California State Government Agencies**

1. Bring together a small Task Group of key state agencies that are major sources of workforce data to share information about existing national and state data sources and data sets, as well as strengths and limitations of these data sets, and to identify mutual workforce data needs and priorities related to CNAs and HHAs. These agencies include the Employment Development Department's Labor Market Division, the Office of Statewide Health Planning and Development's Health Information Division and Health Care Workforce and Community Development Division, and the Department of Health Services' Licensing and Certification Division, Professional Certification Branch and other relevant branches and units within the Division.

2. Bring employer, labor union, consumer advocacy, and education and training program groups together to identify data needs and priorities and how to meet these needs in a collaborative and cost-effective way.

3. Invest strategically in data reporting and collection efforts to meet mutual data needs for specific purposes--workforce planning, research, analysis, and policymaking--and explore alternative methods for obtaining workforce planning data.

4. Build on the momentum and infrastructure of California's long-term care initiatives. Link workforce data needs with the Caregiver Training Initiative, the Aging with Dignity Initiative, and the Long-Term Care Council's strategic planning efforts, including its Data Development Work Group's charge. These initiatives all provide the impetus and collaborative interagency structure needed to improve long-term care workforce planning.

# Trends, Issues, and Projections of Supply and Demand for Nursing Aides and Home Health Care Aides

## California Fieldwork

## Introduction

### Purpose of the Fieldwork Project

The purpose of this fieldwork project is to assess information available for long-term care workforce planning and policymaking in California. Specifically, the project focuses on information about the supply of and the demand for certified nurse assistants (CNAs) and certified home health aides (HHAs) in the state. Other fieldwork projects in New York, Illinois, and Wyoming are examining information related to the same workers in those states.

### Focus of the National Study

These state fieldwork studies are part of a larger national study being conducted by the Center for Health Workforce Studies, State University of New York, Albany. This study is reviewing trends in the long-term care paraprofessional workforce in the 1990s across the 50 states, strengths and limitations of federal and state data on nurse aides and home health aides, best practices in data collection among the states, ways that workforce data might be improved for planning and policy-making purposes, and future prospects for the long-term care paraprofessional workforce.

## Background

### What is Long-Term Care?

Long-term care encompasses a wide array of services. These services are provided at home, in group and assisted living settings in the community, and in health care facilities for people of all ages who have chronic health problems and functional limitations. In California in 1998, there were more than 74 long-term care programs and related services administered by six state agencies. (1)

The types of services provided include personal care, health care, and social services. The level of care or support provided varies from limited help with daily activities for a person who is living alone at home to care in a skilled nursing facility for a person who is recovering from a serious stroke.

The great majority of long-term care users--more than 60 percent--are elderly and the probability of using long-term care increases with age, especially after age 75. (2) In general, individuals may be viewed as moving along a continuum of long-term care as they age, requiring more

extensive and more frequent care and support, and becoming less independent and less capable of caring for themselves at home or in other residential settings.

However, individuals may also be seen as being surrounded by concentric circles of care and support. At the center of this circle is the individual, with self-care and the aid and support of family and friends at home or in another residential setting. Other "rings" in the circle include the individual's community and faith-based activities, participation in mutual aid and support groups, primary care and specialty care for acute and chronic illness, traditional and alternative regimens to prevent acute and chronic illness or to curtail disease progression and disability, emergency care, acute care, home care, in-home support, rehabilitative care, nursing home care, and hospice care. The individual may move back and forth among these "circles" or draw on the support of many of them at one time.

**Who Makes Up the Long-Term Care Workforce?**

The workforce providing long-term care services is nearly as diverse as the services and settings for care. This workforce includes both formal, or paid, caregivers and informal, or unpaid, caregivers, most often, family members, friends, or volunteers. Physicians, pharmacists, dentists, nurses, nurse practitioners, physician's assistants, social workers, psychologists, rehabilitation therapists, physical and occupational therapists, recreation therapists, acupuncturists, massage therapists, nurse aides, home health aides, personal care attendants, and others make up the formal long-term care workforce.

Direct caregivers, workers who provide most of the hands on, day-to-day care, in nursing homes and through home health agencies, include registered nurses (RNs), licensed vocational (or practical) nurses (LVNs or LPNs), certified nurse assistants (CNAs), and certified home health aides (HHAs).

**Why Is Information about the Supply of and the Demand for Long-Term Care Workers Important?**

***The Nation's Long-Term Care Challenge***

Over the next decades, the demand for long-term care is expected to rise significantly. The U.S. population is aging, and the population aged 85 years and older is the most rapidly growing age group among those 65 years and older. (3) As the recent Institute of Medicine report, *Improving the Quality of Long-Term Care,* notes: "Most of the increase in demand for long-term care is expected to occur when the 'baby boom' generation enters the elderly ages. The first of this generation will reach age 65 in the year 2011 and the last will do so around 2030." (4) The number of people age 65 and over in the U.S. is expected to double between 2000 and 2030. (5) An aging population bears a greater burden of chronic illness and disability, and the likelihood of chronic conditions, functional limitations, and disability increases with age.

The Spring 2001 edition of *Generations*, Journal of the American Society on Aging, poses a question: "Who Will Care for Older People? Workforce Issues in a Changing Society?" (6) The demand over the next decades nationally for specific types of long-term care services for elders and other populations in specific types of settings, and for formal long-term care workers to staff

these services, is not known, although models have been developed to project demand. Nor is it known what supply of specific types of workers will be available to meet demand, even though attempts have been made to develop projections of supply.

In fact, demand for and supply of both services and workers will vary among regions in the U.S., among states, and among sub-state regions that constitute markets for long-term care services. (7) These markets, in turn, will be influenced by policies of federal, state, and local government agencies, particularly reimbursement policies, as well as by decisions in the private long-term care sector.

Several recent national studies report that the shortage of nurse aides and home health aides is a widespread concern across the U.S. for nursing homes and home health agencies, and that this problem is affecting consumers' access to care and quality of care. (8, 9, 10, 11) The General Accounting Office's May 2001 report, *Nursing Workforce: Recruitment and Retention of Nurses and Nurse Aides is a Growing Concern*, notes that more than half of states are moving to address nurse aide recruitment and retention issues. (12) A second report, issued on July 30, 2001 by the U.S. House of Representatives' Committee on Government Reform, *Abuse of Residents Is a Major Problem in U.S. Nursing Homes,* is one of approximately 15 reports over the past two years investigating nursing home conditions in Los Angeles, Chicago, the San Francisco Bay Area, Long Island, Texas, Oklahoma, and other states. (13) Staffing inadequacies have a direct effect on residents' safety, quality of life, and quality of care.

***California's Potential Long-Term Care Crisis***

In California, there is a potential crisis in long-term care for the elderly, because the number of people 65 and older is expected to nearly double by the year 2020, and several other dynamics are contributing to a potential shortage of direct caregivers. (14) *The Quest for Caregivers: Helping Seniors Age with Dignity,* a report released in April 2001 by the Occupational Research Unit of the Labor Market Information Division of California's Employment Development Department (EDD), was developed to respond to mandates of Governor Gray Davis's 2000-2001 Aging with Dignity Initiative. (15)

The Caregiver Training Initiative is part of the Aging with Dignity Initiative, which was mandated by Assembly Bill 2876 and signed into law by the Governor in July 2000. EDD was designated as the lead administrative agency for the Caregiver Training Initiative. This initiative includes $25 million to address the impending shortage of direct caregivers, including the recruitment, training, and retention of certified nursing assistants, home health aides, licensed vocational nurses, registered nurses, and other workers.

*The Quest for Caregivers* describes issues and trends affecting both the demand for and supply of direct caregivers in California:

- The rapid growth of the population 65 and over
- A lower growth rate of the population of women aged 24-54, who traditionally has cared for seniors

- Increasing numbers of mothers participating in the workforce, further reducing the number of traditional caregivers for youth and seniors
- An increasing trend toward geographic separation of family members
- The retirement of aging, experienced caregivers in the long-term care workforce
- A robust economy offering many competing entry-level occupations at comparable or higher wages, with less physical demands, available to attract new entrants to the labor market. (16)

Other recent legislation (Assembly Bills 656 and 1731) signed into law by the Governor, as well as recent and forthcoming reports and additional legislation, underline the urgency of long-term care workforce issues in the state. (17) The first report, *Nursing Staff Requirements and the Quality of Nursing Home Care: A Report to the California Legislature from the California Department of Health* Services, was released on July 1, 2001. (18) The Department of Health Services was required by the California State Legislature to analyze the relationship between staffing levels and quality of care in nursing homes and to determine whether the minimum number of nursing hours per patient day in skilled nursing facilities should be increased. The Department of Health Services report did not recommend increasing minimum nursing staff standards in California, but rather that several steps be taken to reform the reimbursement system to reflect costs and staffing levels associated with quality of care for nursing home residents. (19)

Three types of staff provide direct care in nursing homes: RNs, LVNs, and CNAs. (20) Each nursing staff level has different levels of training, but for purposes of meeting California's hours per patient day standard, there is no distinction between these three staff categories. CNAs provide 60-80 percent of direct care that nursing home patients receive (21). However, several studies, including a study released by the Health Care Financing Administration (now the Center for Medicare and Medicaid Services) in 2000, correlate higher registered or licensed vocational nurse ratios with better patient outcomes. (22)

California's current standard levels are the third highest in the nation at 3.2 hours direct patient care/patient day. (23) This standard translates roughly to an average ratio of one direct caregiver (a CNA, LVN, or RN) to seven and one-half patients over a 24-hour period. (24) Expressed another way it can mean that, if a nursing facility has 100 patients, it needs to document that it provides 320 hours of direct care each day, or an average of 3.2 hours of direct care per patient per day across the facility. In reality, some patients may get 4 hours of care, others 5, and some little or no hours of care from a combination of nursing staff persons during a 24-hour period and the facility will still comply with the standard. (25)

Among the reasons cited by the Department of Health Services in its recent report for not increasing staffing standards was a severe shortage of nurses and "the current shortfall in active CNAs for available positions in California nursing homes." (26)

The CNA shortfall "is estimated at between 10,000 and 35,000, and the pool of active CNAs has declined from 120,000 in 1998 to 101,000 in 2000 (a drop of 15 percent). Further, the number of newly certified nurse assistants (25,388) (did) not (keep) pace with the number of CNAs who (did) not (renew) their certification (39,178) (during this time period)." (27)

Assembly Bill 1075 (Skilled Nursing Facilities: Staffing Ratios) would have increased minimum direct caregiver to patient ratios and would have specified ratios for day, afternoon, and night shifts. Although provisions related to the increase in minimum standards and other provisions of this bill were dropped, the version recently signed by the Governor requires the Department of Health Services to develop regulations by August 1, 2003 that establish direct care staff-to-patient ratios, including separate licensed nursing and unlicensed nursing staff ratios, rather than using average hours of direct care per patient day to "measure" care.

The bill will require facilities to post minimum staffing ratios, so that residents, residents' families, facility employees, and state inspectors can determine easily whether or not the facility is in compliance and how many and which staff are providing care. (28) The bill also will make violation of minimum staffing requirements a criminal offense. Another major provision of the bill is to change the way Medi-Cal (California's Medicaid Program) reimburses nursing facilities, moving reimbursement to facility-specific reimbursement, based on patient case mix, direct care labor costs, and other cost-based factors.

A study by Harrington, Kovner, Mezey *et al.* published last year proposed minimum staffing levels per hour per patient day at 1.15 hours for RNs, 0.70 hours for LVNs, and 2.70 hours for CNAs. (29) California's staff hours in 2000 were 0.70 hours for RNs, 0.70 hours for LVNs, and 2.30 hours for CNAs. (30)

California licenses two types of nursing facilities: skilled nursing facilities to provide skilled nursing and sub-acute care and nursing facilities to provide basic nursing care to residents. (31) Nursing facilities are targeted to chronically ill people and people with disabilities; they provide 24-hour institutional care. California in 1998 had 1,456 licensed nursing facilities with 131,941 beds, more than 13 percent of all nursing facility beds in the nation. (32) On a given day, 100,000 Californians will be residing in nursing facilities. (33)

*Training Programs and Certified Nurse Assistant Availability in California: AB 656 Workgroup Recommendations* are forthcoming recommendations mandated by the California State Legislature in Assembly Bill 656 (Nurse Assistants: Training Program) (34). An independent workgroup was convened to develop the report's recommendations, which are being prepared by the Professional and Certification Branch of the Licensing and Certification Division, Department of Health Services for transmission to the Director of Health Services. To complement these recommendations, the Professional and Certification Branch conducted a mail survey of CNAs in California, which produced about 31,000 responses. (35) Preliminary results of this survey are expected to be released along with a background report, *California's Certified Nurse Assistant Workforce Crisis.*

With the urgency affecting long-term care services in California, we will become increasingly dependent on front-line caregivers, including certified nursing assistants and certified home health aides, to provide quality care to the elderly, the ill, and the disabled. Concerns about this workforce extend beyond adequate numbers to concerns about the skill and competence of these workers. In short, this workforce affects Californians' access to care and quality of care at home, in the community, and in health care facilities.

Concerns, however, also need to extend to the workers themselves, their working conditions, wages and benefits, and opportunities for career advancement.

Policies of federal, state, and local government agencies, as well as decisions of private long-term care providers, directly affect the economic and physical welfare of these workers, as well as their opportunities for education and training and future career mobility and advancement.

## Project Objectives

The objectives of the California fieldwork study were to:

1. Identify existing state and national sources of data on the supply of and the demand for CNAs and HHAs in California;

2. Compile information on the nomenclature used by major data sources to describe CNAs and HHAs and their work settings;

3. Assess the accuracy, timeliness, and adequacy of available data in California, as compared to national sources of data on these workers;

4. Identify types of data needed to guide planning and policymaking about CNAs and HHAs in California;

5. Develop recommendations on how to improve the collection of data about CNAs and HHAs in the state.

Information was gathered from three major venues. The first was state government agencies responsible for collecting data and for developing supply and demand projections related to CNAs and HHAs. The second was state trade and consumer associations with an interest in these data. The third was local agencies in one rural county (Sonoma County) and one urban county (San Francisco County) to determine whether different factors influenced the availability of data and the need for data on CNAs and HHAs. Recommendations in this fieldwork study were developed for California state government agencies only. Additional recommendations are presented in the final report of the national study.

## Methods

### Primary Data Collection

Primary data were collected through detailed face-to-face and telephone key informant interviews with senior staff of state agencies (administrative and legislative), state associations, and with representatives of local government agencies, service providers, and others from the two case study counties. Data were also collected from long-term care researchers and experts.

Key informants were selected because they had: 1) direct responsibility for data collection or data projections related to certified nursing assistants and home health aides in the state; 2) direct

involvement in long-term care policy, planning, program, or service activities; 3) direct interest in long-term care policy, planning, or program activities; or 4) direct interest in long-term care workforce data.

Key informants were identified by project staff in consultation with senior staff of California's Health and Human Service Agency, Department of Health Services, and Employment Development Department, as well as with representatives of consumer advocacy groups, a labor union, direct service organizations, and researchers and experts in long-term care.

A letter of introduction was written and e-mailed or faxed to all prospective key informants, explaining the study, requesting their participation, and informing them of potential benefits of the study. The letter was followed by a phone call to obtain the participant's commitment to participate in the study and to schedule time for a face-to-face or telephone meeting.

An Interview Guide was developed for the fieldwork key informant interviews, which focused on five major questions designed to meet project objectives and outlined by the Center for Health Workforce Studies, State University of New York, Albany to guide state fieldwork projects (Appendix 1).

Interview questions were e-mailed or faxed to key informants the day before and the day of the interview. At the time of the interview, informants were asked if they had had time to review the questions. Staff told the informants that they could choose not to answer any questions that they wished, and that they would not be directly quoted in any written documents unless their permission was explicitly sought. Informants were asked if they were willing to be identified by name, position, and agency in an appendix to the final study report listing key informants. Staff also asked informants for permission to tape record the interviews, explaining that tapes would be kept in a secure place and destroyed after the project was complete. After verbal consent to participate in the study was obtained, staff proceeded with interview questions.

Interviews with 33 key informants were conducted from May 10, 2001 through July 31, 2001. The length of interviews ranged from 15 to 90 minutes. Interviews were conducted by one or two staff persons and transcribed by the primary or secondary interviewer. All transcriptions of the interviews were reviewed by all members of the project team. Follow-up questions were noted, and follow-up was conducted by telephone and by electronic mail by the primary or secondary interviewers or other project staff during the period from July 1, 2001-September 14, 2001. (A list of key informants is included in Appendix 2.)

**Secondary Data Collection**

Documents were collected from key informants at time of interviews, directly after interviews, or during follow-up. These documents included descriptions of missions, objectives, and responsibilities of state government agencies and associations, descriptions of databases and data collection instruments, recent state and federal long-term care or long-term care workforce reports, labor market information, published articles, references to published and unpublished articles and reports, legislation, relevant citations from California's Code of Regulations, and relevant federal legislation and codes.

Information also was identified and retrieved from federal and state agency websites: the Health Resources and Services Administration; the National Center for Health Statistics; Center for Medicare and Medicaid Services; U. S. General Accounting Office; U.S. House of Representatives, Committee on Government Reform; U. S. Department of Labor's Bureau of Labor Statistics; U.S. Department of Commerce's Bureau of the Census; California Department of Employment Development; California Department of Health Services; California Office of Statewide Health Planning and Development; California Department of Aging; California State Long-Term Care Ombudsman Program; California Care Network; California Association for Health Services at Home; California Advocates for Nursing Home Reform; California Association of Homes and Services for the Aging; California Association of Health Facilities; and SEIU, Local 250, Health Care Worker's Union.

### Data Analysis

Information collected from the key informant interviews was analyzed for content and to identify convergent and divergent perspectives and responses among informants for each major question and sub-question. Secondary data were reviewed and often discussed with key informants who had been directly involved in developing reports, developing and maintaining databases, or in previously analyzing the strengths and limitations of the databases. Several reports were also discussed with authors or agency staff familiar with the development of reports.

## Findings

The findings of the California Fieldwork study are organized as responses to key study questions:

- Who are Certified Nurse Assistants and Certified Home Health Aides?
- What Are the Major Sources of Supply/Demand Data on Certified Nurse Assistants and Certified Home Health Aides and How Are These and Other Similar Workers Categorized and Described?
- How Accurate, Timely, and Adequate Are the Supply/Demand Data?
- What Types of Supply/Demand Data Are Needed?
- What Can Be Done to Improve Data for Planning and Policymaking?

### Who Are Certified Nurse Assistants and Certified Home Health Aides?

Certified nurse assistants and certified home health aides are workers who are certified by states to provide care in nursing facilities and home health agencies.

Federal law requires states to certify these workers, so that the facilities and agencies can be certified to receive Medicare and Medicaid reimbursement. (36) States license health care facilities and agencies, and California law also requires that these workers be certified to work in all licensed nursing facilities, as well as all licensed home health agencies, whether or not these agencies are certified to receive Medicare or Medicaid reimbursement. (37)

Federal requirements for certifying nurse aides and home health aides can be fulfilled "through a nurse aide training program and a competency evaluation--a written or oral test and skills demonstration--or competency evaluation alone." (38) To meet federal requirements, a state-approved nursing aide training program must require a minimum of 75 hours of training, including at least 16 hours of supervised practical training under the direct supervision of an RN or LPN. (39) Federal law also requires states to maintain a registry of nurse aides working in nursing facilities who have passed their competency evaluations. However, no such federal requirements exist for aides working through home health agencies. (40)

California is one of approximately half of all states that go beyond federal minimum requirements for certification of nursing assistants. (41) The California Department of Health Services requires a certification training program of at least 50 hours of classroom instruction and 100 hours of supervised clinical training. A criminal background check is also required for certification. (42)

The classroom training may be provided by a nursing facility or by an educational institution (a community college, a regional occupations center, a high school, an adult education center, or an accredited school of professional nursing or vocational nursing). In California, a "certified nurse assistant" is defined as "any person who holds himself or herself out as a certified nurse assistant and who, for compensation, performs basic patient care services directed at the safety, comfort, personal hygiene, and protection of patients, and is certified as having completed the requirements of this article. These services shall not include any services which may only be performed by a licensed person and otherwise shall be performed under the supervision or a registered nurse or a licensed vocational nurse." (43)

A person may be known as a "certified nurse assistant" and may place the letters CNA after his or her name when working in a licensed health facility. An individual working independently, providing personal care services, may not advertise or represent himself or herself as a certified nurse assistant. (44)

California's certification requirements apply only to nurse aides or nurse assistants working in Medicare/Medicaid certified nursing facilities; there are no state (or federal) requirements related to certification, training, competency, or evaluation for nurse aides working in acute care hospitals or in other settings.

California's certification requirements for HHAs also exceed federal requirements. This certificate is earned by completing 120 hours of a state-approved training with no more than 65 hours of that training as the classroom component. (45) Since the California Department of Health Services permits programs to add a supplemental 40-hour HHA training to an existing CNA program, there are few "stand alone" HHA programs. (46) Those who are currently CNAs may complete the 40-hour HHA supplement and become qualified for dual CNA/HHA certification.

HHAs must also undergo a criminal background check to be certified. (47) In California, a "home health aide" is defined as "an aide who has successfully completed a state-approved training program, and is employed by a home health agency or hospice program, and provides

personal care services in a patient's home." Home health aide services are "personal care services" provided under a plan of treatment of a physician or surgeon licensed to practice in the state. (48)

In 1998, in California, there were 1,101 home health agencies licensed; the number of agencies had decreased to 759 by 1999, the decline precipitated in part by changing Medicare requirements, including limitations in reimbursement. (49)

**What Are the Major Sources of Supply/Demand Data on Certified Nurse Assistants and Certified Home Health Aides and How Are These and Other Similar Workers Categorized and Described?**

Multiple federal and state agencies develop data related to labor supply and demand and to health facilities and their workers.

Data on certified nurse assistants and certified home health aides are included along with data on other workers in larger occupational and staff categories by almost all federal and state data sources on employment and on projections of labor supply and demand. Many data sources use the federal Bureau of Labor Statistics Occupational Employment Statistics (OES) System or the federal Office of Management and Budget's new system--the Standard Occupational Classification System (SOC)--to code references to categorize workers.

Major sources of data include: the U. S. Department of Labor's Bureau of Labor Statistics (Current Population Survey, Employment Projections, Occupational Employment Statistics, Covered Employment and Wages); the U.S. Department of Commerce's Bureau of the Census (County Business Patterns, Economic Census, State Population Estimates); the Health Resources and Services Administration's Bureau of Health Profession's National Center for Health Workforce Information and Analysis (HRSA State Health Workforce Data Resource Guide and State Health Workforce Profiles); the National Center for Health Statistics (Nursing Home Survey); the Center for Medicare and Medicaid Services (Nursing Home Compare; Online Survey, Certification, and Reporting [OSCAR] System, Minimum Data Set [MDS] Repository; Outcome ASsessment Information Set [OASIS]); the California Employment Development Department's Labor Market Information Division; the California Office of Statewide Planning and Development's Healthcare Information Division and Health Care Workforce and Community Development Division; and the California Department of Health Services Licensing and Certification Division (Automated Certification and Licensing Administration Management System [ACLAIMS] database and Aide and Technician Certification Section [ATCS] Registry). (50-51)

***California Employment Development Department***
***Labor Market Information Division***

In California, the Employment Development Department's Labor Market Information Division is the major source of data on the supply of and the demand for workers. This state agency works closely with its federal counterpart, the U.S. Department of Labor's Bureau of Labor Statistics, to carry out surveys of employers and to develop supply/demand projections, using the same terminology as the federal agency.

For example, CNAs are placed in a category (OES Code 660080), along with nursing aides, orderlies, and attendants, which includes both certified and uncertified workers. HHAs are placed in a category (OES Code 660110), which also includes both certified and uncertified home health care workers.

Nursing aides, orderlies, and attendants may be referred to by several different job titles. These workers may be called nurse aides, nurse or nursing assistants, hospital attendants, and geriatric aides, with their titles and duties depending on their training and experience. (52) All work under the direction of nursing or medical staff to provide auxiliary services in the care of patients. (53) Data for these workers are reported for workers in all settings, not just nursing facilities. The workers are employed in a number of settings: clinics, public health agencies, acute care hospitals, and long-term care settings. In California, this category of workers is principally employed in five settings—nursing and personal care facilities (55 percent), hospitals (27 percent), residential care facilities (11 percent), personnel supply agencies (temporary agencies) (4 percent), and home health care services (3 percent). (54)

Certified home health aides, certified nursing assistants caring for patients in their homes, and uncertified home health care workers are placed in the same employment classification category (55). Home health aides may also be referred to as home health care workers. In California, home health aides are employed principally in the following five industries: home health care services (36 percent); residential care (22 percent); nursing and personal care facilities (17 percent); individual and family services; and hospitals (12 percent). (56)

Personal and home care aides (OES Code 680350), often confused with certified home health aides, are uncertified workers who may also be called in-home supportive service workers, personal care attendants, or companions. (57) In California, more than 90 percent of personal and home care aides work inside single family dwellings. (58) These workers perform such tasks as bathing, cooking, feeding, shopping, and housekeeping. The remaining workers are found in residential care facilities, home health care services, individual and family services, and nursing and personal care facilities. (59) "Most personal and home care aides are hired through the In-Home Supportive Services (IHSS) program, under the direction of the California Department of Social Services." (60) This large program, involving 230,000 workers statewide, provides personal home care services for eligible low-income seniors, the blind, and disabled. "In addition to these workers are many uncounted aides who are self-employed and paid directly by the client or family. These workers are employed in the Private Household Industry, which is not tracked by the California Employment Development Department." (61)

In California, certified nurse assistants and certified home health aides trained to work in nursing facilities and home health agencies are working side by side uncertified workers performing the same, or similar tasks, in work environments--the home, residential care facilities, and acute care hospitals--where there are no federal or state requirements related to staff training. CNAs and HHAs also may work simultaneously in two or more work environments.

How health care providers are competing--or failing to compete--for these workers, specifically how nursing facilities and home health agencies are competing for CNAs and HHAs, when acute

care hospitals and In-Home Supportive Service Programs may offer better salaries, benefits, work schedules, working conditions, as well as labor union membership, is information that is critical to an understanding of the dynamics of labor supply/demand issues. However, this information is difficult, if not impossible, to capture, using traditional employer survey methods. Some informants mentioned that employers were unwilling to divulge salary, wage, and benefits information, as well as information about staff vacancies, how long vacancies are going unfilled, and information about turnover by individual positions.

California's Employment Development Department collects and reports state data to the federal Bureau of Labor Statistics and uses national projections as a starting point for developing state projections, particularly on the demand side. During our interview with staff for this report, one informant said, "Supply is a real challenge. Supply is an issue for all occupations."

The recent report, *The Quest for Caregivers: Helping Seniors Age With Dignity,* produced by the Occupational Research Unit, Information Services Group, Labor Market Information Division of EDD notes:

> A definitive measure of the supply of nurse aides and assistants is not available; however, we do collect information that provides a collateral measure of labor supply problems. Between 1997 and 1999, the California Cooperative Occupational Information System (CCOIS) conducted surveys in 34 California counties, asking 332 employers of nurse aides to indicate the difficulty in finding applicants (trained or untrained). (62)

About 25 percent of employers said it was very difficult and 36 percent said it was somewhat difficult to recruit experienced workers. (63)

EDD estimates that there were 88,500 nursing aides, orderlies, and attendants working in 1998. In 1999, there were 93,210 such workers employed in California, based on Bureau of Labor Statistics State Occupational Employment and Wage Estimates. Wage estimates for the workers were: $8.40 median hourly wage, $8.78 mean hourly wage, $18,260 mean annual wage, assuming year-round, full-time hours. These wage rates were calculated using three years of data (1997, 1998, and 1999).

These data estimates for the numbers of workers include both full-time and part-time workers, as well as other categories of workers (e.g., workers on leaves of absence) in all work settings. These are not a count of full-time equivalent (FTE) staff in the nursing aides, orderlies, and attendants category in nursing facilities, as in annual financial reports for nursing facilities required by the California Office of Statewide Health Planning and Development.

EDD projects that 19,400 new positions will be created for the classification nurse aides, orderlies, and attendants between 1998 and 2008. (64) During this same period, 13,700 or 16 percent of workers are expected to leave this type of work permanently. (65)

The EDD predicts demand for nursing aides, orderlies, and attendants in California for 1998-2008 to be 33,100, including new positions and positions to replace workers who have left these fields.

Staff interviewed for this report said, "We don't have CNA numbers. The positives (of our data) are that they are broad enough to be manageable, but the negative is that they don't give the detail for the certified versus the non-certified…. (T)hat is a loss."

For home health aides, EDD found that obtaining a supply of experienced workers was somewhat difficult for 43 percent of 292 employers surveyed in 22 California counties and very difficult for 26 percent of employers. (66)

The agency estimates that 23,000 home health aides were employed in California in 1998. In 1999, the Bureau of Labor Statistics estimates indicate that 36,490 such workers were employed in California. Median hourly wage for these workers was $8.54, mean hourly wage $9.73, and mean annual wage $20,230.

EDD projects that 15,300 new home health aide positions will be created between 1998 and 2008 in California. This demand will be created by both separations of workers and new positions. These numbers do not include self-employed workers, which may include as many as 40,000 additional workers. (67)

The Employment Development Department's *The Quest for Caregivers* is a comprehensive report containing information not only on supply and demand of three entry-level caregiver occupational categories, but also on wages, benefits, and hours; physical demands; occupational attributes; competing occupations; skills, knowledge, and abilities; job satisfaction; industrial injury; training, licensing, and certification, career ladders; and recommendations for recruitment and retention.

***California Office of Statewide Health Planning and Development***
***Healthcare Information Division***

The California Office of Statewide Health Planning and Development's Healthcare Information Division collects annual financial data, including labor-related data, from long-term care facilities, including nursing facilities, for nursing employee classifications (including RNs, LVNs, and the category nurse assistants, aides, and orderlies). This report is called the "Long-Term Care Facility Integrated Disclosure and Medi-Cal Cost Report." Staffing data reported include:

- Productive hours routine services
- Productive hours per patient day
- Temporary staffing productive hours
- Salary and wage information
- Temporary staffing amount paid
- Number of employees
- Employee turnover percentage
- Employees with continuous service for the entire period (68)

As noted, data for numbers of employees are reported as FTE positions.

The agency also produces an annual report on the home health agency utilization, which includes visits by type of staff, including home health aides, but not numbers of staff employed by agencies. (69)

***California Office of Statewide Health Planning and Development***
***Health Care Workforce and Community Development Division***

This division has a variety of programs that address, aid, and define health care workforce issues throughout the state. (70) Some of the efforts of the division are to encourage demographically underrepresented groups to pursue health care careers and to identify geographic aspects of unmet need as it applies to the health care system. Most recently, the Division has been involved in CNA career ladder efforts in acute care and long-term care.

***California Department of Health Services, Licensing and Certification Division***
***ACLAIMS Database***
***Center for Medicare and Medicaid Services***
***OSCAR Database***

Sources of data on direct care nursing staff employed in nursing facilities include the Center for Medicare and Medicaid Services' Online Survey and Certification Assessment Reporting (OSCAR) System. The OSCAR System, which has been in place since 1991, is a nationwide system used by the Center for Medicare and Medicaid Services to monitor state agency and provider performance related to certification for Medicare and Medicaid. (71)

OSCAR staffing data, as well as other data, are reported by nursing facilities in conjunction with annual state surveys of facilities. State survey agencies are responsible for entering this information as well as survey information into the OSCAR database and providing updates as needed. (72)

In California, the Department of Health Services' Licensing and Certification Division's database of information about the licensure and certification status of nursing facilities is called ACLAIMS (Automated Certification and Licensing Administration Management System). The ACLAIMS database includes information about complaints, deficiencies, citations, penalties, as well as staffing data.

OSCAR/ACLAIMS staffing data are reported for RNs, LPNs, and the category nursing assistants, aides, and orderlies. Data reported include the total numbers of workers in these categories, the total number of residents, and the average number of nursing hours per resident day. Data are reported on staffing for the two weeks prior to the survey. (73) OSCAR data on staffing are not audited by state surveyors against personnel records. (74) OSCAR data, as well as data from another national database known as the Minimum Data Set (MDS) Repository, which includes a core set of resident assessment items, together form the database for Nursing Home Compare (http:// www.medicare.gov/NHCompare/ ), a Center for Medicare and Medicaid Services public information site on nursing homes.

***California Department of Health Services, Licensing and Certification Division***
***Center for Medicare and Medicaid Services, OASIS Database***

The Center for Medicaid and Medicare Services OASIS (Outcome and ASsessment Information Set (OASIS) data elements on home health care are focused at this time on patient assessment, agency level case mix reports, patient outcomes, and internal home health agency performance improvement. Data on staffing by home health aides is not currently included. (75) Home health agencies are required to transmit OASIS data to their state system. State agencies have the overall responsibility for collecting OASIS data and preparing it for retrieval.

***California Department of Health Services, Licensing and Certification Division***
***Professional and Certification Branch***
***Aide and Technician Certification Section (ATCS) Registry***

The single source of statewide data specifically on the supply of certified nurse assistants and certified home health aides is the California Department of Health Services registry mandated by federal requirements. Although a registry with information about CNAs is mandated for all states by federal requirements linked to certification for Medicare/Medicaid reimbursement for nursing facilities, states are not mandated to include information on HHAs in the registry. California's ATCS (Aide and Technician Certification Section) Registry, which is located within the Department's Licensing and Certification Division's Professional and Certification Branch, includes information on the certification status of CNAs, HHAs, and hemodialysis technicians. (76)

The primary purpose of the ATCS Registry in California is to collect information related to certification of CNAs and HHAs and to provide verification of this information to employers and others who request it. Information, most often requested by prospective employers, is available by automated telephone access through a Voice Response Inquiry (VRI) System, using an employee's social security number or certificate number, about certification status of prospective employees, criminal background check status, as well as whether a complaint has been made against the individual. (77)

California's ATCS Registry database, like that of other state registries, contains a minimum data set to meet federal requirements. The federally required data set includes:

- the individual's name
- information necessary to identify the individual
- the date the individual became eligible for placement in the registry through successfully completing a training program and competency evaluation program or meeting other requirements
- information on any finding by the state of abuse, neglect, or misappropriation of property of the individual (78)

All other information in states' registry databases is at states' discretion.

California's ATCS Registry includes the following data: the individual's name, social security number, certificate number, address, school code indicating where CNAs/HHAs received training, date of birth, fingerprint results received from the State Department of Justice, effective date of certificate (which can be either the date of successful competency testing or the date they received criminal background clearance, whichever comes last), the expiration date of the certificate, and records of complaints.

What is released to the requestor is the individual's name, the date the individual was certified, the expiration date, and whether the individual has a criminal record. Details of the criminal record are not in the VRI. What the VRI says is "This individual is active until the given expiration date. This individual has undergone a criminal background check for certification purposes." If the individual has not been cleared, then the individual is in inactive status and it is not revealed why. Internal data show if inactive status is revocation for cause or if the individual has allowed his or her certificate to expire.

The Registry database provides a picture in California of the total number of CNAs, CNAs/HHAs, and HHAs; the number of certificates issued annually; and the current status of certificates issued in earlier years (renewed or not renewed). (79) For example, on September 1, 2001, there were a total of 108,708 active CNAs in California. Of these, 66,530 were CNAs: 42, 178 were CNAs/HHAs. There were also an estimated 889 HHAs. (80) In little more than three years, from July 1, 1998 to September 4, 2001, the total number of active CNAs has declined overall from 120,063 to 108,708, a decline of 11,355, or about 9 percent. (81)

The picture of the total number of active CNAs varies as the number of certificates issued is tallied against those not renewed. For example, over the period from July 1, 1998 through May 1, 2001, 35,974 certificates were issued to CNAs, however, 46,751 were not renewed, accounting for a net loss of 10,777 CNAs to the pool of potential workers. (82)

An analysis of data from the Registry conducted by staff of the Professional Certification Branch shows that of the 22,863 certificates issued to CNAs in 1993, eight years ago, 73 percent had not been renewed by mid-July 2001. (83) More than half (54 percent) of certificates issued in 1997, four years ago, had not been renewed by mid-July 2001. One informant noted that, from the pool of new applicants who were certified in a given year, one could expect to lose nearly half of them within three years. The respondent also noted that this information is helpful in forecasting future supply. It also suggests that, if a CNA continues in the profession for several years, the likelihood that he/she will leave the profession levels off. As the informant noted, the long-timers may have unique abilities or situations that allow them to better deal with this profession and its job duties.

In addition to information available through the Registry, the Licensure and Certification Division has information about approved CNA Training Programs (facility based, regional occupational program/adult education, community college, and proprietary). (84) These programs in 2001 are estimated to number 786. (85) The Branch also has printouts from the training programs showing the number of persons who trained as CNAs versus the number of people who are active. But questions about the larger pool of students who may enter programs,

drop out of programs, or complete programs, but do not apply for certification, cannot be answered.

**How Accurate, Timely, and Adequate Are the Supply/Demand Data?**

This study of data available on the current and projected supply for and demand of certified nurse assistants (CNAs) and certified home health aides (HHAs) to work in California's nursing facilities and home health agencies shows that data on both supply and demand are inadequate to meet the needs of state and local policymakers, employers, training programs, current and future workers, consumers, and others with a need for this information.

Key informants identified several reasons that made data insufficient for planning and policy-making purposes:

- Inconsistent estimates of shortages
- Lack of information and lack of agreement about dynamics of shortages
- Lack of comparability of workforce data among major national and state data sources about specific types of workers and work settings
- Lack of information specifically about certified workers
- Lack of local and regional supply/demand information
- Lack of other specific types of supply/demand information
- Infrequency of reporting and timelags between reporting and availability of data and public access to data
- Lengthy data collection and verification processes
- Facility self-reporting bias

Estimates of the current shortage of CNAs to work in California nursing facilities range widely. One estimate indicates that the current shortage ranges from 10,000-35,000. (86) Another estimate indicates that there is a current shortage of about 30,000 direct caregivers in the state's freestanding skilled nursing facilities. (87) Direct caregivers include RNs, LVNs, and CNAs. Still another estimate projects a demand for 33,100 nurse aides, orderlies, and attendants in California during the period between 1998 and 2008, without specifying the demand for CNAs to work in the state's nursing homes. (88)

No estimates specifically for the current or projected supply of and demand for certified home health aides could be identified in this study.

Aggregation of data about certified nurse assistants and certified home health aides with data about other workers in the same occupational employment categories or staffing categories poses a major barrier to developing an accurate picture of the supply of and the demand for CNAs and HHAs. Nomenclature used by major national and state data sources to describe CNAs and HHAs and other workers and their work settings often further confuses the picture.

California's ATCS Registry's pool of certified workers does not reflect the current supply of workers available. Data on supply are lacking about the number of CNAs and HHAs actively employed, how many are working in nursing homes or home health agencies, how many are

working in other settings (acute care hospitals, residential care facilities or in homes as in home supportive services workers), and how many are working simultaneously in two or more work settings. The Department of Health Services lacks statutory authority to track CNAs as they move from employer to employer, unless there is an adverse action or complaint.

Other information on the supply side of the equation is also missing, including an up-to-date picture of CNA and HHA training programs and students in these programs, including how many students apply, how many enroll, how many drop out before completion, why they drop out, and how many complete programs, but do not apply for certification. The Department also lacks regulatory authority to require compilation of data from a training site or to require training course evaluations.

Several types of data on requirements and demand for CNAs and HHAs are needed to complete the supply/demand picture. The most frequently noted types of information noted by key informants were:

- Current information across all facilities on salaries, wages, benefits, including starting salaries and trends in salaries, by city, county, and region
- Current information on job vacancies, how long vacancies stay open, turnover rates (not only averages for classes of personnel, but how long individuals stay in positions)
- Information on staffing patterns in nursing facilities (actual number of CNAs onsite at a given time to provide direct care services and actual number of hours worked)
- Information on CNA staff workload in nursing facilities
- More frequently reported data (quarterly rather than annually) on direct care staff and patient health and functional characteristics in nursing facilities
- Staffing data reported in conjunction with information on patient health and functional status for both nursing homes and home health agencies
- More information on how employers are meeting minimum direct care staffing requirements in terms of the mix of staff (RNs, LVNs, CNAs) providing direct care
- Information on direct care staffing and patient acuity mix
- Information about wait lists for services or requests for caregivers going unfilled
- Information about trends in utilization of services

Most key informants expressed frustration that supply/demand data for long-term care workers--CNAs, HHAs, and other long-term care workers--could not be better quantified in face of perceived current critical shortages in California that are predicted to escalate in years to come.

Informants understood that many factors influence supply and demand**.** Some said that the dynamics of the CNA shortage were not fully understood, including the role of employers' management and employment practices in helping to create the shortage, as well as the role of federal and state reimbursement policies, and other factors. "A lot of the data that I've read say there's a shortage, but I don't think (there's) an adequate explanation of what the shortage actually is." Another respondent said, "The main weakness (in the data) that all the others stem off of is the fact that we know that there is a tremendous shortage of workforce. However, the data do not depict accurately that this shortage actually exists."

Most key informants familiar with data collected by the California Department of Health Services' Registry and data projections developed by the California Department of Employment Development said that the data were accurate, given the mandate of the agencies collecting data and the limitations of terminology, data collection methods, and supply/demand projections methods and assumptions used. For example, the California Department of Health Services' ATCS Registry was perceived by most informants familiar with Registry as a source of data as having accurate data on the number of certified CNAs and HHAs.

The California Employment Development Department also was perceived by most who were familiar with the agency's data as having accurate data, at least at the state level on occupational outlook and wages. One informant said "In general, at the state level the data are pretty accurate, but the farther you go down, such as at the county level, it is less accurate. There is nothing to compare the data to because there are no real occupational numbers. There are industry numbers but no benchmark occupational numbers and no time series. The data is within a 20 to 25 percent range of accuracy on the local level and probably somewhat more accurate at the state level."

Some informants perceived that some data reported in OSCAR/ACLAIMS data about nursing facilities to be inaccurate because they perceived that both the method of reporting data and the source of data were unreliable. These informants said that self-reported information by nursing facilities about the number of direct care staff and meeting California's minimum staffing requirements in OSCAR/ACLAIMS is often not accurate. One respondent said, "The reason is that a lot of data is self reported by the nursing home industry, so of course they're going to make it in the best light. The way that they use staff in facilities may not be as direct care staff. (For example, a CNA is doing receptionist work and the nursing home reports direct patient care hours for that worker.) Secondly, the enforcement system only looks at the two-week block (before the survey), which doesn't really give you a good idea. Ninety percent of facilities in California know when the annual survey is coming, so they 'staff up.' They will hire an enormous amount of staff that they would never have at any other time. A lot of the data, essentially, is skewed. But I don't know an alternative way to get it, unless you interview and go into every single nursing home and count heads." Others have also suggested that staff reports by the facilities may be inaccurate and not reflective of staffing at other times, since facilities can predict when surveys will take place, and may "staff up" before the survey. (89)

The timeliness of data varies with the purpose of data collection, types of data being collected, methods of data collection, and the process used by state and federal agencies to work together to develop labor market projections and to verify data collected for regulatory purposes.

The data for the number of CNAs and HHAs are timely because the Department of Health Services updates the Registry database as applications for certification or renewal of certification are received from schools or individuals. From the reporting perspective, the data are timely and relevant for the period for which they are reported.

Data from other sources, EDD, OSHPD, and OSCAR, have varying lag times, from one to two years. Several key informants expressed concern that the lag time for much of these data was too long to make it useful. Others said that things were improving, for example, with computerized

databases, with information updated in the ACLAIMS database as often as every three months. One EDD staff member noted: "A disadvantage is that there are delays. By the time ours are collected, processed, reviewed, approved, and released a year has gone by. We are usually a year and a half or sometimes two years behind. But on the other hand, there is tremendous consistency."

Almost every key informant in this study agreed that current data on the supply for and the demand of CNAs and HHAs were not adequate to inform state and local policymakers and planners on long-term care workforce issues.

One informant's response was typical: "There just (aren't) enough (data) to accurately draw a picture. We assume, we presume, we think… Probably in some cases, there are pretty good guesstimates, but it's still a guesstimate. Guesstimates are probably not the smartest thing to develop public policy on—particularly for the long term. Obviously the data are inadequate. From my viewpoint, there are not adequate data to provide enough information to base sound public policy on. I think we enough to know that we are in trouble."

Another informant said, to the contrary, "There (are) data out there, and I think there (are) enough data and data sources that will continue to show that we still need more people…. All of the sources will indicate that there are supply/demand issues. They may be off by a couple of thousand, but they will all result in understanding that there is a demand/supply issue."

It is important to note, however, that key informants in this study varied in their familiarity with and knowledge of the range of national and state data sources, data sets, and data elements within these data sets. They also varied in their technical expertise with these data, as well as their understanding of the uses and potential uses of the data and its strengths and limitations. In general, they were not familiar with or knowledgeable about the data except as it related to the needs for data and the uses of data by their own organization or agency. Only long-term care research experts were aware of the range of national and state data sources, data sets, data elements, and strengths and limitations of data. State agency policy and research staff were knowledgeable about some of the data sources and data sets, and trade association and consumer advocacy organizations, with others. Most key informants were familiar with the California Department of Health Services' ATCS Registry.

Most key informants were not familiar with data from national sources, such as the U.S Department of Labor's Bureau of Labor Statistics data sets, and could not compare California's data on supply and demand with national estimates.

Although few were familiar with Bureau of Labor of Statistics data, State Occupational Employment Projections, those who were understood its limitations in terms of the occupational categories used and timeliness. Informants also understood that California's Employment Development Department's Labor Market Information Division developed projections based on employer surveys that were sources of national data.

Some were familiar with the Center for Medicare and Medicaid Services' OSCAR database, but understood that data in this national database derive from states and nursing homes themselves.

**What Types of Supply/Demand Data Are Needed?**

State and local policymakers, employers and trade associations, training programs, current and future workers, labor unions, consumer advocacy organizations, and others have different needs for data, and they use data for different purposes. Key informants identified a broad range of data needed for different purposes.

**Types of information identified by key informants fell into four major categories:**

1. Information to improve recruitment and retention of students in CNA/HHA training programs and career ladder program;
2. Information to improve recruitment and retention of CNAs and HHAs as direct care workers in nursing facilities and home health agencies;
3. Information to improve understanding of the current and projected supply of and demand for this workforce and the relationship to quality of care, access to appropriate levels of care, reimbursement for care, utilization of care, and costs of care; and
4. Information to improve existing state databases.

**Specific types of data most often requested on the supply side were:**

- Information about characteristics of CNA /HHA training programs
  --type of program (nursing facility, community college, regional occupations center, high school, adult education center, an accredited school of professional nursing or vocational nursing)
  --location of program
  --cost of program
  --trends in the number of training programs
  --trends in student applications, enrollments to these programs
  --trends in student dropouts/reasons for dropout
  --how many students complete programs
  --how many apply for certification
  --how many are certified
  --where students are placed (nursing facilities, acute care, home health, in-home supportive services)

- Information about the characteristics of students in training programs
  --age
  --race/ethnicity
  --gender
  --primary language
  --interest in entering CNA/HHA program
  --special interests (e.g., geriatrics)
  --residence

- Information about the characteristics of the certified CNA and HHA workforce

- Information about the characteristics of the actively employed CNA and HHA workforce

  --number in workforce
  --age
  --race/ethnicity
  --gender
  --primary language
  --work setting (nursing facility, home health agency, acute care, in home support, residential care, other)
  --work history
  --how long workers stay in one position
  --reasons for leaving
  --where do they go if they leave position (stay in health occupation, leave health occupation)

**Specific types of data requested related to requirements and demand were:**

- Current information across all facilities on salaries, wages, benefits, including starting salaries and trends in salaries, by city, county, and region

- Current information on job vacancies, how long vacancies stay open, turnover rates (not only averages for classes of personnel, but how long individuals stay in positions)

- Information on staffing patterns in nursing facilities (actual number of CNAs onsite at a given time to provide direct care services)

- Information on CNAs staff workload in nursing facilities

- More frequently reported data (quarterly rather than annually) on direct care staff and patient health and functional characteristics in nursing facilities

- Staffing data reported in conjunction with information on patient health and functional status for both nursing homes and home health agencies

- More information on how employers meet minimum direct care staffing requirements in terms of the mix of staff (RNs, LVNs, CNAs) providing direct care

- Information on direct care staffing and patient acuity mix

- Information about wait lists for services or requests for caregivers going unfilled

- Information about trends in utilization of services

**Specific types of data requested to improve state databases:**

- Information about what other state registries have in their databases and how the registries work

There were no substantial differences in the needs for data of respondents in the one urban county, San Francisco, and the one rural country, Sonoma, where interviews were conducted. Needs for data centered on local providers' needs for local and regional supply/demand information, including information on the race/ethnicity of potential workers, to aid in recruitment and retention of workers.

All informants emphasized the need for "real-time" data or data as current as possible.

Informants also emphasized the need for workforce data to be broken down into more specific categories (i.e., certified nurse assistants vs. direct caregivers, certified home health aides vs. all home health aides) for it to be useful.

Clearly, not all of these data needs can be met. Each of these needs must be assessed in terms of feasibility, cost, and its potential to meet multiple needs of multiple users.

**What Can Be Done to Improve Data for Planning and Policymaking?**

***Address Workforce Data Issues in the Context of the State's Long-Term Care Initiatives***

No single agency in California is mandated to do workforce planning or to develop workforce policies related to long-term care facilities and services in the state. Nor is any single agency charged with developing or synthesizing the range of information needed to inform decision-making about this diverse workforce.

Key informants in this study did not perceive that any single agency would be able to collect the different types of data needed to better understand the dynamics of the current and future supply of and demand for these workers. Nor did they propose any single solution to improving the

quality of data about CNAs and HHAs. Instead what emerged were several strategies tied to needs for data for specific purposes, for example, to improve recruitment and retention of students or workers.

California has taken leadership in developing a Long-Term Care Council within the California Health and Human Services Agency to do strategic planning on long-term care issues, including assessing data available and needed on long-term care. California has also taken leadership with an Aging with Dignity Initiative, which includes the Caregiver Training Initiative. All of these steps point to the urgency of the state's concern about current and future long-term care issues, including workforce supply and demand issues.

California's Department of Health Services, Department of Employment Development, and Office of Statewide Planning and Development have already taken steps to work more closely together in developing workforce data on entry-level long-term care workers, including CNAs and HHAs, and on career ladders in long-term care and acute care.

Government interagency collaboration, public-private agency collaboration, industry-education program collaboration were all suggested by key informants as ways to develop and implement specific workforce data strategies, including specific data collection efforts.

***Address Workforce Data Issues by Investing in Improving Existing State Agency Databases***

Lack of adequate funding and staffing, hardware and software upgrade issues, and other issues affect the capacity of the California Department of Health Services to enhance the Registry as a more comprehensive information database for workforce planning and policymaking. The Registry is physically maintained and updated by one programmer staff person working in a data center outside the Licensure and Certification Division. Professional and Certification Branch staff cannot modify the database; they have "view only" privileges. The database structure is "old," developed originally only for verification purposes. Both hardware and software need to be upgraded. A review of data elements that could be added to the Registry database and that are within the regulatory purview of the Department of Health Services could be conducted in conjunction with a review of "best practices" from other state registries.

One respondent noted that some states issue numbers to facilities and they have a system that interacts with that number. So, for instance, when an individual calls in to the registry, there is an option to identify if the caller is from a licensed facility, or from the public, and the caller enters provider identification. The state knows when a provider calls who that provider is. The state can also use that number to track and register people, so an agency could develop information at the individual level, including a history of where a CNA has worked and how many different jobs he/she has had. This same respondent noted that bringing several states together in a workgroup to discuss needed workforce data would be useful, as would a national certification database.

### *Address Workforce Data Issues in the Context of Improving the Quality of Care*

Some informants said that workforce information could be strengthened by improving reporting about staff of nursing facilities, since staffing has a direct relationship to quality of patient care. About one-third of a sample of California's nursing facilities, could not meet California's minimum direct care staffing requirements in January-February 2001 (90), and there is evidence that state licensure agencies have difficulty monitoring facilities' compliance with these minimum standards. (91) More frequent reporting, as well as reporting for a longer time period, for example, a quarterly period (rather than a two-week period) before the survey, may help to assure more accurate and continuous reporting.

Changing federal and state reporting requirements for nursing facilities to increase reporting frequency, including quarterly reporting on all workers at all training levels and how many hours they are working, was proposed by one informant. This same informant suggested reporting this quarterly staffing information in conjunction with information on resident characteristics from the federal Center for Medicare and Medicaid Services' Online Survey and Certification Assessment Reporting (OSCAR) System or with information on the national Minimum Data Set (MDS) Repository, which includes a core set of resident assessment items.

For home health agencies certified for Medicare/and or Medicaid, this same informant suggested that reporting on HHA staff could be strengthened by adding staffing information to the Center for Medicare and Medicaid Services' OASIS (Outcome and ASsessment Information Set) reporting system. Data elements in OASIS are currently focused on patient assessment, agency level case mix reports, and patient outcomes, and internal home health agency performance improvement.

Other informants agreed that workforce demand issues need to be addressed in the context of quality of care. However, one informant cautioned that the appropriate mix of nursing facility direct care staff and resident case mix was still not known, although there is a general acknowledgment that there is need to look at more acuity-based reimbursements and at staffing levels based on acuity. AB 1075 moves California in this direction.

### *Address Workforce Data Issues in the Context of Improving Access to Appropriate Levels of Care*

Others said that workforce demand issues needed to be understood in terms of access to care, particularly access to appropriate levels of care and that waiting lists for care, for example, need to be examined in terms of their affect on appropriateness of levels of care.

Some suggested that it was more important for strengthening workforce data on the demand side to track people who need services than to track people available to provide them. One respondent suggested specifically a mandatory requirement that State and Local Area Agencies on Aging track waiting lists for nursing home, home health, and in-home supportive services.

Documenting waiting lists was seen as being important because, as one informant noted, both providers and consumers said that if people cannot get the care they need at home or in residential facilities, they are placed inappropriately at much higher costs in nursing facilities.

In general, local government agencies and program personnel interviewed seemed well informed about waiting lists for in-home supportive services and home care.

***Address Workforce Data Issues in the Context of Planning for Future Long-Term Care and Better Understanding Future Utilization and Costs of Care***

Other informants said that workforce issues should be understood in the context of better understanding current and future utilization of long-term care services and future need/demand for these services. One informant said:

> It's a bigger question than just the workforce issues. We don't have any longitudinal information about people in the long-term care system. Part of that is a result of the privacy issue, not just new ones, but old ones, in terms of confidentiality. There is no patient/consumer… tracker. For instance, if someone in one year uses a home health agency, in-home supportive services, goes to a skilled nursing facility for six months, goes in and out of the hospital three different times, all of those are counted as unique incidents. There's no way you can know that that one human being accounted for all those hits. So you double count all the time. For planning purposes surrounding workforce issues, it's very hard to know, except based on current usage, what you need. Current usage only serves those people that you can serve at the given time. It becomes a chicken and egg problem. Many people could be served if you knew what the needs were for future, not at a given time.

Future workforce demand projections based simply on "straight line" population projections or current long-term care service utilization patterns are not likely to provide useful information to federal, state, and local policymakers.

## Conclusions

1. This short-term California fieldwork study has provided an opportunity for a preliminary analysis of national and state data available on the supply of and the demand for CNAs and HHAs in California's nursing facilities and home health agencies and ways to improve these data for workforce planning and policymaking.

2. The findings of the study provide evidence that there are problems with available data on the supply of and the demand for CNAs and HHAs in California. The problems are with the timeliness, accuracy, and adequacy of data to meet multiple needs of multiple users.

3. These problems are serious because they result in apparent major discrepancies in estimates of current and projected shortages of long-term workers, specifically of CNAs, as well as in a lack of information about both current and future supply of and demand for both CNAs and

HHAs. Without better data, workforce planning for nursing facilities and home health agencies in California will be difficult.

4. Long-term care is a looming crisis in California. One of the things needed to address this crisis is better workforce supply and demand data. Another thing is a common language to understand the data--which groups of workers and which work settings are addressed by different data sources, data sets, documents, and reports, and what are the implications of the data for planners and policymakers. A third is agreement about the dynamics of supply and demand and the reasons for shortages.

5. The long-term care workforce has a direct relationship to the quality of care delivered, access to appropriate levels of care, and costs of care. Collaborative and strategic efforts are required in California to identify and prioritize data needs of users, to clarify specific purposes of any additional data reporting and collection efforts, as well as to assess the costs of gathering additional data and its usefulness and limitations for workforce planning.

6. This study occurred at a time when California has already taken major steps to respond to the urgency of long-term care issues. California's Aging with Dignity Initiative, which includes a $25 million Caregiver Training Initiative, addresses long-term care workforce issues. California's recently established Long-Term Care Council within the California Health and Human Services Agency is required to conduct numerous strategic planning activities aimed at improving the coordination of, access to, and the quality of long-term care services. Opportunities for the collaboration of the California Department of Health Services, Employment Development Department, and Office of Statewide Health Planning and Development have already led to improved efforts in workforce planning.

## Limitations

The qualitative nature of this study depicts perceptions of selected key informants about the availability, accuracy, timeliness, and adequacy of federal and state agency data sources, databases, and data elements on supply of and demand for certified nurse assistants and certified home health aides. Informants varied in their familiarity with, knowledge of, and expertise related to these data, and their perceptions of these data may not accurately represent the data available.

Perceptions of the small number of key informants in this study may not be generalizable to perceptions of a wider range of informants in California, and perceptions in California may not be generalizable to other states.

Perceptions of a small number of key informants in one urban and one rural county may not be generalizable to other California counties.

A comprehensive literature review was not conducted as part of this study; only a limited review of secondary data was undertaken.

There was no independent primary gathering of workforce data. All data presented are from secondary sources. The only special data run requested for this report was on the number of current CNAs, CNA/HHAs, and HHAs. These data were provided by the California Department of Health Services, Licensing and Certification Division, Professional Certification Branch.

There was no statistical analysis of data sets.

## Recommendations for California State Government Agencies

1. Bring together a small Task Group of key state agencies that are major sources of workforce data to share information about existing national and state data sources and data sets, as well as strengths and limitations of these data sets, and to identify mutual workforce data needs and priorities related to CNAs and HHAs. These agencies include the Employment Development Department's Labor Market Division, the Office of Statewide Health Planning and Development's Health Information Division and Health Care Workforce and Community Development Division, and the Department of Health Services' Licensing and Certification Division, Professional Certification Branch and other relevant branches and units within the Division.

2. Bring employer, labor union, consumer advocacy, and education and training program groups together to identify data needs and priorities and how to meet these needs in a collaborative and cost-effective way.

3. Invest strategically in data reporting and collection efforts to meet mutual data needs for specific purposes--workforce planning, research, analysis, and policymaking--and explore alternative methods for obtaining workforce planning data.

4. Build on the momentum and infrastructure of California's long-term care initiatives. Link workforce data needs with the Caregiver Training Initiative, the Aging with Dignity Initiative, and the Long-Term Care Council's strategic planning efforts, including its Data Development Work Group's charge. These initiatives all provide the impetus and collaborative interagency structure needed to improve long-term care workforce planning.

## References


1. Harrington, C., Tonner, M.C., Wellin, V. et al. *The Role of Medi-Cal in California's Long-Term System.* Prepared for the Medi-Cal Policy Institute, Oakland, CA: 2000, and p. 1.
2. Alecxih, L. "The Impact of Sociodemographic Change on the Future of Long-Term Care." Generations 25 (1) (Spring 2001):107.
3. Wunderlich G.S. and Kohler P.O.(Eds) *Improving the Quality of Long-Term Care*. Institute of Medicine, Division of Health Care Services, Committee on Improving Long-Term Care. National Academy Press, Washington, D.C.: 2001, p.2.
4. Ibid.
5. "Older Americans 2000: Key Indicators of Well-Being." Federal Interagency Forum on Aging-Related Statistics. www.agingstats.gov/chartbook2000population.htm.
6. Noelker, L." Our Guest Editor." Generations 25 (1) (Spring 2001): 4.
7. Newcomer, R.J. Personal communication, August 7, 2001.
8. U.S. General Accounting Office. Testimony before the U.S. Senate Committee on Health, Education, Labor and Pensions. *Nursing Workforce Recruitment and Retention of Nurses and Nurse Aides Is a Growing Concern*. U. S. Government Printing Office, Washington, DC: May 17, 2001.
9. U.S. House of Representatives. Committee on Governmental Reform. *Nursing Home Staffing Levels Are Inadequate in the 13th Congressional District of California*. Washington, D.C.: December 7, 2000.
10. U.S. General Accounting Office. *California Nursing Homes: Care Problems Persist Despite Federal and State Oversight.* GAO-HEHS-97-93. U.S. General Accounting Office: Washington, D. C.: 1998.
11. U.S. House of Representatives. Committee on Governmental Reform. *Abuse of Residents Is a Major Problem in U.S. Nursing Homes.* Washington, DC: July 30, 2001.
12. U.S. General Accounting Office. *Nursing Workforce Recruitment and Retention of Nurses and Nurse Aides Is a Growing Concern*. p.15.
13. U.S. House of Representatives. Committee on Governmental Reform. *Abuse of Residents Is a Major Problem in U.S. Nursing Homes.* p. 4.
14. California Employment Development Department. Labor Market Information Division. Information Services Group. Occupational Research Unit. *The Quest for Caregivers: Helping Seniors Age with Dignity.* Sacramento, CA: April 2001, p.1-1 and 1-3.
15. California Employment Development Department. *The Quest for Caregivers: Helping Seniors Age with Dignity.*
16. Ibid. pp.1-3.
17. California Department of Health Services. *Nursing Staff Requirements and the Quality of Nursing Home Care: A Report to the California Legislature* Sacramento, CA: July 1, 2001.
18. Ibid.
19. Ibid. p. 24.

20. Ibid. p. 18.
21. Ibid.
22. Harrington, C., Kovner, C., Mezey, M. et al. "Experts Recommend Minimum Nurse Staffing Standards for Nursing Facilities in the United States. The Gerontologist. 40: (1) 2000 5-16.
23. California Department of Health Services. *Nursing Staff Requirements and the Quality of Nursing Home Care,* p.11.
24. Ibid. p.17.
25. Ibid. p. 4.
26. Ibid. p.19.
27. Ibid.
28. AB 1075, 2001-2002 http://www.leginfo.ca.gov.
29. Harrington, C. Kovner, C, Mezey, M. et al.
30. Harrington, C, Carrillo, H, Wellin, V. *Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 1994 Through 2000.* Department of Social and Behavioral Sciences, University of California, San Francisco, San Francisco, CA: June 2001, p.73.
31. Harrington, C., Tonner, M.C., Wellin, V. et al. *The Role of Medi-Cal in California's Long-Term System*, p.24.
32. Ibid. p. 26.
33. California Department of Health Services. *Nursing Staff Requirements and the Quality of Nursing Home Care.* p.1.
34. Personal communication, Linda Heisler, California Department of Health Services, October 30, 2001.
35. Ibid.
36. 42 United States Code. Section 1395i-3 (b) (5) (A) (i) (I),42 United States Code. Section 1396r (b) (5) (A) (i) (I), and Section 1395bbb(a) (3) (A) (i).
37. California Health and Safety Codes. Section 1726 and 1727 (d).
38. U.S. General Accounting Office. *Nursing Workforce Recruitment and Retention of Nurses and Nurse Aides Is a Growing Concern*. p.3.
39. Ibid.
40. Ibid. p.4.
41. Ibid. p.3.
42. California Health and Safety Code. Section 1337.3 (c)(2). See also www.dhs.cahwnet.gov/lnc/ATCS/Certification%20Facts.pdf for a description of California's CNA/HHA training requirements.
43. California Health and Safety Code. Section 1337 (d) (3).
44. California Health and Safety Code. Section 1337.2 (3) (e).
45. Personal communication, Linda Heisler, California Department of Health Services, September 13, 2001.See also www.dhs.cahwnet.gov/lnc/ATCS/Certification%20Facts.pdf
46. Ibid.
47. California Health and Safety Code. Section 1728.1.
48. California Health and Safety Code. Section 1727. (d).
49. Harrington, C., Tonner, M.C., Wellin, V. et al. *The Role of Medi-Cal in California's Long-Term System,* p.21.
50. These data sources and data sets were accessed on the Internet at the following sites:

http://www.bls.gov/home.htm
http://www. home.doc.gov/
http://www.hrsa.gov
http://www.cdc.gov
http://www.hcfa.gov
http://www.edd.ca.gov/
http://www.osphd.cahwnet.gov
http://www.dhs.ca.gov

51. The HRSA State Health Workforce Data Resource Guide available though http://www.hrsa.gov and provides an excellent description of data sources and databases, as well as ways to develop data on supply of and demand for workers.
52. California Employment Development Department. *The Quest for Caregivers*: *Helping Seniors Age with Dignity*. p. 2-2.
53. Ibid.
54. Ibid.
55. Ibid. p.2-5.
56. Ibid.
57. Ibid. p.2-9.
58. Ibid. p.2-8.
59. Ibid.
60. Ibid.
61. Ibid. p.2-9.
62. Ibid. p.2-2.
63. Ibid. p.2-3.
64. Ibid.
65. Ibid. p.2-6.
66. Ibid. p.2-5.
67. Ibid.
68. California Office of Statewide Health Planning and Development, Healthcare Information Division, Long-term Care Facility Annual Disclosure Reports, Long-Term Care Facility Annual Financial Data. Data File Documentation. For Report Periods Ended July 1, 1999 through June 30, 2000. http:// www. osphd.cahnet.gov/hid/ Lafdo600.doc.
69. California Office of Statewide Health Planning and Development. Healthcare Information Division. http://www.osphd.cahnet.gov/hid/.
70. California Office of Statewide Health Planning and Development. http://www.osphd.cahnet.gov/ or http://www.osphd.state.ca.us/pcrcd/index.HTM
71. U.S. Department of Health and Human Services. Office of the Inspector General. *Nursing Home Survey and Certification: Deficiency Trends*. OEI-02-98-00331 Washington, D.C.: March 1999.
72. http://www.medicare.gov/NHCompare
73. Harrington, C, Carrillo, H, Wellin, V. *Nursing Facilities, Staffing, Residents, and Facility Deficiencies, 1994 Through 2000*. p.59.
74. Wunderlich G.S. and Kohler P.O.(Eds) *Improving the Quality of Long*-Term *Care*. Institute of Medicine, p. 114.
75. Nursing Home Compare (http://www.medicare.gov/NHCompare)

76. http://www.dhs.ca.gov/Inc/ATCS/
77. Personal communication, Kristina Smith and Linda Heisler, California Department of Health Services, May 10, 2001.
78. Code of Federal Regulations Section 483.156 (c)
79. California Department of Health Services, Professional and Certification Branch, Licensing and Certification Division.
80. Personal communication, Linda Heisler, September 15, 2001.
81. Ibid.
82. Personal communication, Kristina Smith and Linda Heisler, May 10, 2001.
83. Personal communication, Linda Heisler, July 16, 2001.
84. California Department of Health Services, Professional and Certification Branch, Licensing and Certification Division, April 2, 2001.
85. Ibid.
86. California Department of Health Services. *Nursing Staff Requirements and the Quality of Nursing Home Care.* p.19.
87. Personal communication, Kenneth Merchant, California Association of Health Facilities, July 13, 2001.
88. California Employment Development Department. *The Quest for Caregivers*: *Helping Seniors Age with Dignity.* p.2-2.
89. Wunderlich G.S. and Kohler P.O. (Eds*) Improving the Quality of Long-Term Care.* Institute of Medicine, p.114.
*90.* California Department of Health Services. *Nursing Staff Requirements and the Quality of Nursing Home Care.* p.10.
91. Wunderlich G.S. and Kohler P.O.(Eds*) Improving the Quality of Long-Term Care*. Institute of Medicine, p.115.

# Appendix 1

## Key Informant Interview Questions

1. What data are available about Certified Nurse Assistants (CNAs) and Certified Home Health Aides (HHAs) in California?

   Probes: What are the sources of data?
   How accurate and timely are the data?
   Are the data only about workers who are certified?
   Are the data about CNAs and HHAs who are currently working?
   Are there any data about the underground workforce?

2. Are adequate data available to inform state and local policymakers concerned about these issues?

   Probes: What are the weaknesses of the current data?
   Do you think we know enough about the supply of and demand for these workers? About workers currently employed? About the "underground" workforce?

3. How do the numbers that are collected or compiled in California compare with numbers from national sources (e.g., Bureau of Labor Statistics, Health Care Financing Administration [Center for Medicare and Medicaid Services]?
   Probe: What about data from state associations--How do these data compare with information in state reports?

4. Are there ways to improve the quality of the data about CNAs and HHAs and the data collection processes?
   Probe: Who should be gathering data and by what mechanisms?

5. What health workforce data do you think would be most helpful to your organization? What data could be helpful to policymakers?

6. Is there anything you would like to add about these workers? About the data?

# Appendix 2

# Key Informants

## State Government Agencies

**Licensing and Certification Division, Department of Health Services**
Kristina Smith
*Chief, Professional and Certification Branch*

Linda Heisler
*Workforce Specialist, Professional and Certification Branch*

**Office of Long Term Care, Department of Health Services**
Terri Taylor, RRT, RN
*Nurse Consultant II*

**Department of Aging**
Beth Mann
*State Long Term Care Ombudsman*

**Health Care Workforce and Community Development Division,**
**Office of Statewide Health Planning and Development**
Brian Desmarais, MPA, RN
*Acting Deputy Director*

B. Glen Varner
*Health Careers Training Officer*

**Adult Programs Branch, Department of Social Services**
Alan Stolmack
*Chief*

**Labor Market Information Division, Employment Development Department**
Bonnie Graybill
*Information Services Manager*

Carl Hedlind
*Research Manager*

Laurie Achtelik
*Research Analyst*

Linda Hax
*Research Analyst*

Jennifer Taylor
*Research Analyst*

**California Institute for Mental Health, California Mental Health Planning Council**
Brian Keefer
*Associate (Does not represent the Institute or Council)*

**California State Legislature**
**Assembly Committee on Aging and Long Term Care**
Bonnie Darwin
*Chief Consultant*

**Office of the Legislative Analyst**
Tiffany Reyes
*Fiscal and Policy Analyst*

## State Associations

**California Association of Homes and Services for the Aging**
Catherine Borg
*Associate Director of Public Policy*

**California Association for Health Services at Home**
Joseph H. Hafkenshiel, CAE
*President*

**California Association of Health Facilities**
Kenneth Merchant
*Workforce Issues Director*

**California Advocates for Nursing Home Reform**
Patricia L. McGinnis, JD
*Executive Director*

**Continuing Care Services, California Healthcare Association**
Judy Citko, JD
*Director*

## San Francisco City and County, CA

**On Lok Senior Health**

David Baker
*Development Officer*

May Chin
*Director of Home Care*

**Social Services Department, Self-Help for the Elderly**
Tracy Dobronravova
*Director of Social Services*

**In-Home Supportive Services Consortium**
Margaret Baran, MPH
*Executive Director*

## Sonoma County, CA

**Adult and Aging Services, Sonoma County Human Services Department**
Robin Schaef
*Director*

**Sonoma County Human Services Department**
Karen Fies
*Program Development Manager*

**Managed Care Network, Sonoma County Partners for Health**
Sheryl Ellerbusch
*Program Manager*

**Medical Management Resources**
Cynthia Solomon
*Principal*

**Sonoma County Chapter, Red Cross**
Sally Stitch
*Nurse Training Administrator*

**Sonoma County Ombudsman Program**
Susan Ziblatt
*Executive Director*

# Other Informants

**University of California, San Francisco**
Charlene Harrington, RN, MS, PhD
*Professor of Social and Behavioral Sciences*

**Resource Center on Aging, University of California, Berkeley**
Diane Driver, PhD
*Academic Coordinator*

**California Pacific Medical Services**
Chita Torres
*Clinical Resource Manager*