



LPN Supply & Demand

The Future of Licensed Practical Nurses in Oregon

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January 2004

This report was made possible through the support of the following:

Carl Perkins Leadership Funds



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Introduction

Significant attention and research has been devoted in recent years to the impending shortage of registered nurses (RNs). While the need for RNs is projected to become critical within the next 10 to 15 years, little attention has been devoted to the need for assistive nursing personnel, licensed practical/ vocational nurses (LPNs) in particular.

LPNs provide general nursing care with minimal supervision for sick, injured, convalescent, and disabled people in predictable situations, and under the direct supervision of a registered nurse, licensed physician or dentist in unstable situations.¹ LPNs collect information about clients, contribute to the plan of care, provide medications and treatments, and assist clients with personal and emotional care needs. In long-term care settings, LPNs help evaluate residents' needs, develop care plans, and supervise the care provided by nursing assistants. LPNs also may work in ambulatory care settings (physician's offices and clinics), scheduling appointments, maintaining records, and performing other clerical duties in addition to their clinical responsibilities.²

This report examines available data related to the current supply and demand for LPNs, projected future needs for LPNs, and factors potentially contributing to a projected shortage of LPNs in Oregon within the next 10 to 15 years. Both statewide and regional data and needs are identified. The final section of the report suggests optimal locations for new LPN programs in Oregon, based on available data.

Current Data

Demographics

In 2003, there were 4,054 licensed LPNs in Oregon. The vast majority (78 percent) of current licensees are age 40 or older (Table 1), with an average age of 48.65 years (as of June 2003). In comparison, the median age of Oregonians is just over 36 years, indicating that LPNs are, as a group, older than the general Oregon population. Most Oregon LPNs are white (90 percent; see Table 2)) and female (91 percent). Hispanics, who account for 8 percent of the population in Oregon, are underrepresented in the profession, making up only 2.6 percent of LPNs in Oregon. Hispanics remain underrepresented in practical nursing student populations, accounting for only 2.5 percent of practical nursing students enrolled during the 2001-02 academic year.³

Table 1

Currently Licensed Practical Nurses by Age Group		
Age	Number	Percent
20-29	288	7.10%
30-39	600	14.80%
40-49	1069	26.37%
50-59	1459	35.99%
60-69	553	13.64%
70-79	78	1.92%
80+	7	0.17%
Total	4054	

Table 2

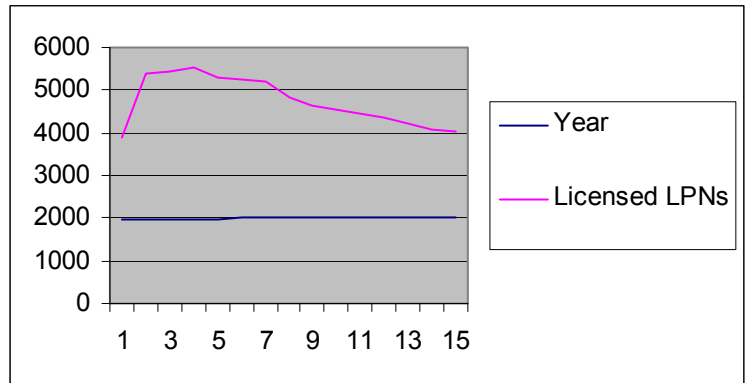
Ethnic Background of LPNs in Oregon			
Ethnicity	Number	Percent	Oregon population
Asian	95	2.44%	3.00%
Asian/Pacific Islander	8	0.21%	0.2%
Black	88	2.26%	1.6%
Hispanic	102	2.62%	8.0%
Native American	42	1.08%	1.3%
Other	57	1.46%	
White	3499	89.93%	86.6%
Total	3891		

Until 2003, the number of Oregon LPNs declined steadily from a peak of 5,513 in 1991 (Table 3 and Chart 1).

Table 3

Year	Licensed LPNs	Increase or Decline
1970	3894	
1980	5389	
1990	5445	
1991	5513	1.23%
1992	5303	-3.96%
1993	5242	-1.16%
1994	5216	-0.50%
1995	4806	-8.53%
1996	4633	-3.73%
1997	4549	-1.85%
1998	4440	-2.45%
1999	4344	-2.21%
2000	4227	-2.77%
2001	4074	-3.76%
2002	4017	-1.42%
2003	4054	0.91%
Average annual decline		-2.32%

Chart 1



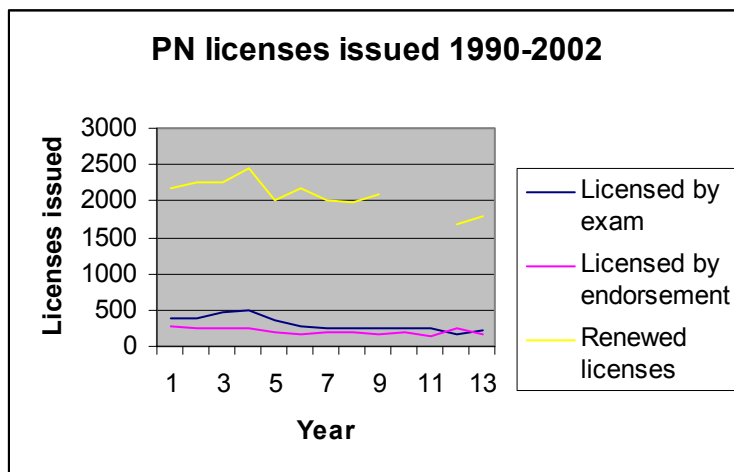
There currently are 26.5 percent fewer LPNs in Oregon than there were in 1991. This decline can be attributed to fewer applicants for licensure by examination and endorsement, as well as fewer LPNs applying for license renewal (Table 4 and Chart 2).⁶

Table 4

LPN licenses issued			
Year	Exam	Endorsed	Renewal
1990	399	268	2176
1991	395	241	2247
1992	458	255	2258
1993	492	251	2461
1994	353	198	2014
1995	267	165	2161
1996	245	187	2009
1997	259	186	1970
1998	244	169	2091
1999	243	197	**
2000	234	130	**
2001	165	251	1667
2002	229	171	1790

** Data not available

Chart 2



Practice settings

Most Oregon LPNs are employed in one of three settings: nursing homes (25 percent), acute care hospitals (18 percent), or ambulatory care (17 percent) (Table 5).⁴ Nationally, 29 percent of LPNs work in nursing homes, 28 percent in hospitals, and 14 percent in ambulatory care settings.⁵

Table 5

Employment Settings for Active LPNs in Oregon (June 2002)		
Setting	Number	Percent
Ambulatory Care	669	16.65%
Group home	79	1.97%
Drug/alcohol treatment	34	0.85%
Home health	217	5.40%
Hospital/acute care	709	17.65%
Nursing education	7	0.17%
Nursing home/Ext. care	1021	25.42%
Occupational health	24	0.60%
Other	378	9.41%
Community setting	89	2.22%
School	52	1.29%
Non-nursing/unempl.	125	3.11%
Not recorded	613	15.26%
Total	4017	

Nursing homes often experience the greatest difficulty in attracting and retaining nursing staff. A 2002 survey of nursing homes conducted by the American Health Care Association showed significant vacancy rates (unfilled positions) and turnover rates in nursing positions ranging from administration through nursing assistant. For LPNs, the average vacancy rate was 13.2 percent with almost one-quarter of the states reporting average vacancy rates above 15 percent. In Oregon, the LPN vacancy rate of surveyed facilities was 15.1 percent. This translates to an estimated 115 unfilled LPN positions in nursing homes statewide. Nationally, the average annual turnover rate of LPNs in surveyed facilities was nearly 50 percent. Oregon reported a slightly lower turnover rate for LPNs (46.7 percent). About two-thirds of facilities nationally reported more difficulty recruiting staff LPNs in 2002 than during the previous year.⁶

Future Outlook

Long-Term Care

LPNs make up approximately 14 percent of direct care workers in long-term care settings nationally. As of 2000, LPNs held approximately 263,000 jobs in nursing homes and other long-term care settings. The Bureau of Labor Statistics (BLS) projects that 84,000 new LPN jobs will be created in long-term care settings by 2010 to meet the increasing demand for services. An additional 68,000 jobs will be created by currently licensed practical nurses who retire or leave the profession for other reasons.⁷

Over the next half-century, the aging “baby boomer generation” is expected to significantly increase the demand for health services in general and

long-term care in particular. The number of elderly in need of nursing facilities, alternative residential care, or home services is expected to double, increasing from approximately 8 million in 2000 to 19 million in 2050.

Currently, over 428,000 people aged 65 and older in Oregon require direct care. This is expected to increase in excess of 100 percent to more than 936,000 by 2025.⁸ The BLS estimates that direct care worker jobs (RN, LPN, CNA, home and residential aide) in long-term care settings will grow by about 800,000 jobs, or approximately 45 percent. The demand for care providers is expected to increase by as much as 200 to 250 percent as baby boomers reach age 85, beginning in 2030.⁹

Even as the demand for health care workers (including LPNs) is dramatically increasing, the number of women ages 25 to 54 (who have traditionally formed the core of practical and registered nurses) is expected to remain relatively unchanged. The current nursing workforce is aging and will be retiring from active service, compounding the projected shortage of healthcare workers.

Acute Care

Much of the data related to projected shortages of LPNs in the future focuses on long-term care. However, LPNs also make up a significant portion of the licensed nursing staff in acute care facilities, particularly in rural communities. At this time, few LPN position vacancies exist in acute care. Factors such as higher wages and staffing models that rely primarily on RNs and nursing assistants contribute to the discrepancy between acute and long-term care in

LPN position vacancies.

Employment of LPNs in acute care is expected to increase over the next five to ten years. When the supply of RNs is inadequate to meet the demand, acute care nursing models shift from a primary care model to a team model. Primary care models, in which the RN provides the majority of direct patient care, require a higher RN to patient ratio than team models. In the team model, the RN assumes the role of patient care manager, supervising and assigning direct patient care responsibilities to assistive personnel such as LPNs and CNAs. The LPN is a valuable team member, with the training and ability to collect and report significant patient information, provide skilled nursing care, and supervise nursing assistants under the direction of the RN. The education plan developed by the Oregon Nursing Leadership Council (ONLC) in response to the nursing shortage includes this strategy. This shift will further increase the shortage of LPNs in acute care, and, consequently, in all healthcare settings.

Contributing Factors

A number of factors are seen as contributory to the projected future shortage of LPNs. The report “The Future Supply of Long-Term Care Workers in relation to The Aging Baby Boom Generation”¹⁰ identifies the following:

- The decreasing number of LPNs in the training pipeline;
- The shortage of nursing faculty available to teach new LPNs;
- Inadequate training specific to long-term care;
- The lack of benefits compared to LPNs in other acute care settings; and

- The higher turnover rate (51 percent) of nurses and LPNs in nursing home chains than in acute care settings.

Evidence suggests that fewer young adults are entering the nursing profession. Women are entering traditionally male occupations in increasing numbers, while the number of men entering the nursing profession has increased only slightly. Occupational risks such as possible disease exposure, back injuries, and lack of autonomy may dissuade people from entering the nursing profession. Healthcare is, in many cases, a 24/7 industry, necessitating evening, night, and weekend work in a predominantly 8 A.M. to 5 P.M. Monday through Friday world.

In Oregon, the minimum qualification for practical nursing program faculty is a baccalaureate degree in nursing. All nursing programs are experiencing increasing difficulty recruiting faculty. Educational institutions often are unable to offer competitive wages for bachelor's prepared nurses.

Current models of nursing education heavily rely on acute and ambulatory or community-based care settings for clinical practice experiences. As a result, few graduates at either the LPN or ADN level feel adequately prepared to work in long-term care.

Additional factors, both national and specific to Oregon, are likely to contribute to a future shortage of LPNs. Significant attention has been directed toward a projected critical registered nursing shortage in the early part of the 21st century. The shortage of RNs is predicted to reach 12 percent by 2010, and then accelerate to 20 percent by 2015. Without intervention, the shortage is projected to reach 29 percent by 2020.¹¹

Although all states, including Oregon, are instituting measures to address this predicted shortage, these measures are unlikely to fully meet the need for licensed nursing staff in acute care, long-term care, ambulatory care, and other settings. Healthcare agencies will look to assistive personnel, well-trained LPNs in particular, to fill the gap.

Nursing personnel account for the majority of labor costs in acute and long-term care facilities. Pressure to reduce healthcare costs has led to staffing models that often necessitate mandatory overtime and/or use of temporary licensed nurses. These temporary nurses, or “travelers,” often are minimally oriented to the nursing units on which they work, increasing the responsibilities and workload of regular staff.

Oregon Needs for LPNs

Although the number of LPNs in practice in Oregon is low compared to the rest of the nation, the need for direct care workers in Oregon can be expected to mirror national trends, significantly increasing the demand for LPNs. The Oregon Workforce Investment Board projects an 11.3% growth rate in the demand for LPNs through 2010.¹² Table 6 summarizes LPN employment projections for 15 Oregon regions.

Table 6

LPN Employment Projections 2002-2012						
Region	2002 jobs	2012 jobs	Percent growth	Growth openings	Repl. openings	Total openings
1-Clatsop, Columbia	20	27	35.00%	7	6	13
2-Multnomah, Tillamook, Washington	754	924	22.50%	170	216	386
3 - Marion, Polk, Yamhill	444	560	26.10%	116	129	245
4 - Benton, Lincoln, Linn	124	162	22.60%	28	36	64
5 - Lane	357	448	25.50%	91	103	194
6 - Douglas	109	127	16.50%	18	30	48
7 - Coos, Curry	58	70	10.70%	12	16	28
8 - Jackson, Josephine	240	311	29.60%	71	71	142
9 - Gilliam, Hood River, Sherman, Wasco, Wheeler	55	71	29.10%	16	16	32
10 - Crook, Deschutes, Jefferson	142	183	28.90%	41	42	83
11 - Klamath, Lake	45	55	22.20%	10	13	23
12 - Morrow, Umatilla	52	68	30.80%	16	15	31
13 - Baker, Union, Wallowa	27	31	14.80%	4	7	11
14 - Grant, Haney, Malheur	43	52	20.90%	9	12	21
15 - Clackamas	171	211	23.40%	40	49	89

Oregon currently has one stand-alone practical nursing education program at Rogue Community College. Twelve of the 14 community college associate degree nursing (ADN) programs include an option to exit as a practical nurse after completion of one year of the ADN program. It is likely that this model of nursing education has contributed to the decline of LPNs in Oregon. In many college districts, more LPNs have entered ADN programs to obtain RN licensure than have left the ADN program at the practical nursing level. In addition, with this model of practical nursing education, students entering the nursing program must meet prerequisites for the associate degree in nursing. These prerequisites (such as chemistry, math, and other sciences), and the competitive nature of

registered nursing program admissions often limit access to the programs by students seeking practical nursing training.

A competency-based registered nursing program delivered by a consortium of public and private colleges and universities is being developed as one strategy to address the RN shortage. This curriculum does not, at this time, include an option to exit at the practical nursing level. While it is anticipated that the consortium plan and curriculum will lead to more and better prepared RNs, it could have a negative effect on the supply of LPNs in Oregon. Eight of the 14 associate degree-nursing programs in the state have made verbal commitments to join the consortium.

Several private for-profit schools in the Portland metropolitan area have indicated their intent to establish practical nursing programs. At this time, however, it appears that the earliest any of these programs could admit students would be Fall 2006. Additionally, these programs are unlikely to relieve LPN shortages in rural communities. In fact, the seven regions of the state in which the growth of LPN jobs is predicted to be the highest (greater than 25 percent) are outside the Portland metro area (see Table 7 below).

Table 7

LPN Employment Projections 2002-2012						
Region	2002 jobs	2012 jobs	Percent growth	Growth openings	Repl. openings	Total openings
1-Clatsop, Columbia	20	27	35.00%	7	6	13
3 - Marion, Polk, Yamhill	444	560	26.10%	116	129	245
5 - Lane	357	448	25.5.%	91	103	194
8 - Jackson, Josephine	240	311	29.60%	71	71	142
9 - Gilliam, Hood River, Sherman, Wasco, Wheeler	55	71	29.10%	16	16	32
10 - Crook, Deschutes, Jefferson	142	183	28.90%	41	42	83
12 - Morrow, Umatilla	52	68	30.80%	16	15	31

Projected LPN Program Sites

Based on data from Worksource Oregon (Table 6), seven Oregon regions will have more than 50 total openings for LPNs in the next eight to ten years. These regions should be considered first when seeking sites for developing practical nursing programs.

Region 2, which includes Multnomah, Tillamook, and Washington counties, has a projected need for 386 total openings (growth and replacement) for LPNs by 2012. The neighboring Region 15, Clackamas County, adds an additional 89 openings. The ADN nursing programs at Portland Community College and Mount Hood Community College do not currently include the practical nursing exit option. Clackamas Community College also has an ADN program that serves these regions. Along with Mt. Hood CC, Clackamas has indicated its intent to join the Oregon Consortium for Nursing Education, potentially further reducing practical nursing graduates in the Portland metro region. Given the projected need for LPNs in Regions 2 and 15, and the presence of existing nursing program resources (skills laboratories and faculty),

the greater Portland metropolitan area is a logical site for development of stand-alone practical nursing programs.

Region 3, Marion, Polk, and Yamhill counties, is a close second to Region 2 in projected need for LPNs (245) in the current decade. The ADN nursing program at Chemeketa Community College does include an option to exit at the practical nursing level, but is unlikely to produce enough LPNs to meet the projected demand. It could, however, provide support for required resources.

While the projected 64 total LPN openings in Region 4, Benton, Lincoln, and Linn counties is lower than some other regions, the need may actually increase more rapidly than projected. Lincoln County has a relatively high percentage of elderly residents, potentially increasing the need for assisted living and nursing home beds in the county. Oregon Coast Community College in Newport is actively exploring strategies to offer a nursing program (either ADN or LPN) in the community to meet current and projected nursing personnel needs.

Region 5, Lane County, has a projected 194 total LPN openings by 2012. The nursing program at Lane Community College does include the practical nursing option and could assist with resource development. Peace Harbor Medical Center in Florence is committed to facilitating development of a nursing program in that community and may also be seen as a resource for program development.

Rogue Community College in Grants Pass and Medford currently has the only stand-alone practical nursing program in Oregon. This region (8), which includes Jackson and Josephine counties, has a relatively high projected need for LPNs in the future (142 openings).

Finally, Region 10, Crook, Deschutes, and Jefferson counties, has a projected need for 83 additional LPNs by 2012. Central Oregon Community College has a nursing program that could potentially provide resource support.

Conclusion

Nurses make up the largest single group of healthcare workers. The impending nursing shortage affects all areas of healthcare, with a potentially serious impact on acute and long-term care. This shortage results from an acute and long term discrepancy between the supply of nurses at all levels (RN, LPN, and CNA) and the current and projected demand. Historically, societal factors such as epidemics, war, and women's role in the workforce have contributed to significant nursing shortages. Factors underlying the current nursing shortage are different and difficult to address with short-term strategies: an aging baby-boom generation, an aging nursing workforce, healthcare advances that reduce disease fatality rates but lead to more people living with chronic disease, and fewer young adults to enter the nursing profession.

Because the current nursing shortage differs from previous shortages, simply increasing enrollment in current nursing programs is unlikely to meet the projected need for nurses. New educational and workforce strategies are necessary to meet the future healthcare needs of Oregonians. Developing additional stand-alone practical nursing programs in Oregon is one important strategy to increase the supply LPNs to meet projected needs.

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