



## Survey of Nurses 2007

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### EXECUTIVE SUMMARY

In 2007, the Michigan Center for Nursing conducted the fourth annual survey of nurses licensed in Michigan to collect data on their employment status, geographic distribution, age, plans to continue practicing, work setting, practice area, education, gender, and racial/ethnic background. The survey also includes questions related to nurses' decisions to leave a position in nursing and the factors that led to these decisions.

Responses from a mailed survey and Web-based survey were combined and analyzed. In 2007, the total sample consisted of

- 43,676 registered nurse (RN) surveys, yielding a margin of error of  $\pm 0.5$  percent with 95 percent confidence; and
- 9,098 licensed practical nurse (LPN) surveys, yielding a margin of error of  $\pm 1.0$  percent with 95 percent confidence.

All nurses are required to renew their license every two years after receiving their first license, which results in two cohorts of nurses that are approximately the same size. Analysis of the four years of survey data shows a significant difference between these two cohorts of nurses in age distribution. The cohort of nurses who renewed their licenses during 2005 and again in 2007 is older than the cohort of nurses who renewed their licenses in 2004 and 2006. Therefore, survey responses that may be affected by age—such as plans to continue practicing nursing—should be compared only to responses received from the same license renewal cohort two years ago. If differences between survey findings from one year to another are statistically significant (i.e., outside of the margin of error), they are noted in the text.

Key findings from the 2007 survey show that:

- Approximately 85 percent of licensed RNs and 81 percent of licensed LPNs report that they are *active* in nursing—working in nursing or a related area full- or part-time. These percentages have changed very little since the survey of nurses was implemented in 2004.
- An estimated 91,933 to 94,066 licensed registered nurses are working in nursing or a related area *in Michigan*—77,224 to 79,956 (85 percent) of these RNs provide direct patient care services in their main nursing position.
- An estimated 20,315 to 21,272 licensed practical nurses are working in nursing or a related area *in Michigan*—18,344 to 19,634 (91 percent) of these LPNs provide direct patient care services.

- Only about 2 percent of licensed nurses are unemployed and seeking employment in nursing; this number is unchanged from survey findings in 2004, 2005, and 2006.
- Of the RNs working full- or part-time in nursing, about 72 percent are employed 35 or more hours per week. This percentage has not changed significantly since the current annual survey of nurses was initiated. In the 1998–99 licensure survey 68 percent of active RNs reported they were employed 35 or more hours per week.
- The proportion of active LPNs employed 35 or more hours per week is about 68 percent, compared to 65 percent in 1998–99.
- The ratio of active *registered nurses* to population in Michigan is approximately 921 RNs for every 100,000 people; the ratio of active *licensed practical nurses* to population is approximately 206 LPNs per 100,000 people.
- About 27 percent of *active* registered nurses in this license renewal cohort are aged 55 or older, compared to 22 percent of active registered nurses *in the same license renewal cohort* who responded to the survey in 2005. About 35 percent of *active* licensed practical nurses in this license renewal cohort are aged 55 or older, compared to 30 percent in 2005.
- About 38 percent of *active* RNs and 41 percent of *active* LPNs say they plan to practice nursing for only one to ten more years. This group is larger than it was in 2005 when 35 percent of all active RNs and 38 percent of all active LPNs *in the same license renewal cohort* said they planned to practice nursing for only one to ten more years.
- In 2007, about 22 percent of all RNs and 21 percent of all LPNs surveyed said they had voluntarily left a nursing position in the last two years. Of these, more than half—57 percent of RNs and 64 percent of LPNs—said they left to take another nursing position with a different organization.
- Nearly three-fourths of *active* registered nurses (about 74 percent, the same number reported in 2005 and 2006) are employed in either the hospital inpatient or outpatient setting; LPNs (about 45 percent) are most likely to be employed in nursing homes or long-term care facilities.
- About 6 percent of *active* RNs and 5 percent of active LPNs are male.<sup>1</sup>
- About 6 percent of *active* RNs are African American, 4 percent are Asian, and 1 percent are American Indian/Alaskan Native.
- About 14 percent of *active* LPNs are African American, 2 percent are Asian, and 2 percent are American Indian/Alaskan Native.
- About 1 percent of *active* RNs and 2 percent of active LPNs are Spanish/Hispanic/Latino.

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<sup>1</sup> The U.S. Census Bureau annual population estimates by sex, race, and Hispanic or Latino origin show the following percentages for Michigan in 2006: 49.2 percent male, 50.8 percent female, 82.6 percent white, 15.0 percent black or African American, 2.7 percent Asian, 1.2 percent American Indian or Alaskan Native, 0.1 percent Native Hawaiian or other Pacific Islander, and an estimated 3.9 percent Hispanic or Latino. The sum of percentages for race equals more than 100 because individuals may report more than one race.

## INTRODUCTION

One of the goals of the Michigan Center for Nursing is to establish a central resource for nursing workforce data collection and analysis. In 2007, the Michigan Center for Nursing conducted the fourth annual survey of nurses licensed in Michigan to collect data on their employment status, geographic distribution, age, plans to continue practicing, work setting, practice area, education, gender, and racial/ethnic background. The survey instrument also included questions on whether the nurse had left a position in nursing during the past two years, and, if so, what factors led to the decision to leave the previous nursing position. This report presents the survey findings for 2007 and a description of the survey methodology.

The samples for this survey and the surveys conducted in 2004, 2005, and 2006 were drawn from the Michigan licensure files maintained by the Michigan Department of Community Health. All nurses are required to renew their license every two years after receiving their first license, which results in two cohorts of nurses that are approximately the same size. The survey was mailed to nurses renewing their license in 2004, 2005, 2006, and 2007, along with their license renewal form, and the survey was also available online for nurses renewing their license via the Internet. Thus, each cohort of nurses renewing their license has received the survey twice.

Analysis of the four years of survey data shows a significant difference between the two cohorts of nurses in age distribution. The cohort of nurses who renewed their licenses during 2005 and again in 2007 is older than the cohort of nurses who renewed their licenses in 2004 and 2006. Therefore, survey responses that may be affected by age—such as plans to continue practicing nursing—should be compared only to responses received from the *same* license renewal cohort in a previous survey.

In 2007, the survey sample consisted of 43,676 registered nurse (RN) surveys, yielding a margin of error of  $\pm 0.5$  percent with 95 percent confidence; and 9,098 licensed practical nurse (LPN) surveys, yielding a margin of error of  $\pm 1.0$  percent with 95 percent confidence. The large number of responses received and the sampling design assure that the survey findings are applicable to the entire population of nurses licensed in Michigan for characteristics that are not likely to be affected by a nurse's age. If differences between survey findings from one year to another are statistically significant (i.e., outside of the margin of error), they are noted in the text.

## NUMBER OF NURSES

The total number of nurses licensed by the State of Michigan is 149,482 (as of January 1, 2007). Of these, 122,122 are registered nurses (RNs) and 27,360 are licensed practical nurses (LPNs). The total number of nurses licensed by Michigan (including both active and inactive RNs and LPNs) has increased by 2,428 since 2006.<sup>2</sup> The number of licensed

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<sup>2</sup>Data for 2004, 2005, and 2006 are from the annual *Michigan Center for Nursing Survey of Nurses*. All data from earlier licensure surveys of nurses cited in this report are from the *Study of the Current and Future Needs of the Professional Nursing Workforce in Michigan*, prepared for the Michigan Department of Consumer and Industry Services by Public Sector Consultants Inc., July 2001.

RNs increased by 2,211 (1.8 percent), while the number of licenses for LPNs increased by 217 (0.8 percent) during the same period.

In 2007, approximately 85 percent of licensed RNs report that they are active in nursing—working in nursing or a related area full- or part-time.<sup>3</sup> About 81 percent of LPNs are working in nursing or a related area (see Exhibit 1). The percentage of licensed RNs and LPNs who are active in nursing is relatively unchanged from the proportions reported in 2004, 2005, and 2006.

However, some nurses who are active in nursing are not working in Michigan, even though they hold a Michigan license. And some nurses working in positions in related areas, such as nursing education or administration, do not provide direct care services to patients. The following estimates are based on survey findings for 2007. These estimates are each presented as a range reflecting the upper and lower bounds of the confidence intervals for each of the percentages obtained from the survey.

- An estimated 91,933 to 94,066 RNs are working in nursing or a related area *in Michigan*.
- An estimated 77,224 to 79,956 RNs working in Michigan (about 85 percent of active registered nurses) provide direct patient care services in their main nursing position.
- An estimated 20,315 to 21,272 LPNs are working in nursing or a related area *in Michigan*.
- An estimated 18,344 to 19,634 LPNs working in Michigan (about 91 percent of active licensed practical nurses) provide direct patient care services in their main nursing position.

Analysis of data in this report focuses on active nurses—those nurses who are working in nursing or a related area full- or part-time. Analysis of the data for these *active* nurses only shows that:

- About 72 percent of *active* RNs are employed 35 or more hours per week, compared to 73 percent in 2006, 71 percent in 2005, 72 percent in 2004, and 68 percent in 1998–99.
- About 68 percent of *active* LPNs are employed 35 or more hours per week, compared to 71 percent in 2006, 68 percent in 2005, 70 percent in 2004, and 65 percent in 1998–99.

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<sup>3</sup> Throughout this report, the term “active” is used to refer to nurses who are working in nursing or a related area on a full-time or part-time basis. “Active” does not include approximately 2 percent of licensed nurses who are unemployed and seeking nursing work and could be considered part of the available nursing workforce.

**EXHIBIT 1**  
Employment Status of RNs and LPNs in Michigan, 2007

	Registered Nurses		Licensed Practical Nurses	
	%	Number*	%	Number*
Total number of nurses licensed by Michigan		122,122		27,360
Total active nurses—employed in nursing or related area	84.8	102,949–104,170	80.5	21,751–22,298
Not employed, and seeking employment in nursing or related area	1.6	1,343–2,565	3.2	602–1,149
Employed, but not in nursing	2.7	2,687–3,908	4.3	903–1,450
Not employed, and seeking employment outside nursing	0.2	0–855	0.3	0–356
Temporarily not working and not looking for a job	4.8	5,251–6,472	5.6	1,259–1,806
Retired or no plans to return to work	6.0	6,717–7,938	6.0	1,368–1,915
Active nurses employed <i>in Michigan</i> (89.8 percent of active RNs, 94.4 percent of active LPNs)		91,933–94,066		20,315–21,272
Active nurses providing direct care services <i>in Michigan</i> (84.5 percent of active RNs employed in MI, 91.3 percent of active LPNs employed in MI)		77,224–79,956		18,344–19,634

\*NOTE: The number of nurses licensed by Michigan is from the Michigan licensure files maintained by the Michigan Department of Community Health as of January 8, 2007. All other numbers are estimated based on data from the *Michigan Center for Nursing Survey of Nurses 2007*. These estimates are each presented as a range reflecting the upper and lower bounds of the confidence intervals for each of the percentages obtained from the survey data.

## RATIO OF NURSES TO POPULATION

Based on the employment location reported by nurses, the estimated ratio of active nurses to population in Michigan is 1,127 per 100,000.<sup>4</sup> This nurse-to-population ratio estimate includes *both* LPNs and RNs who are employed in nursing full-time or part-time in Michigan. The estimated ratio of active *registered nurses* to population in Michigan is 921 for every 100,000 people. The ratio of active *licensed practical nurses* to population is 206 LPNs per 100,000 people.

## AGE OF NURSES

The proportion of active licensed nurses nearing retirement is higher for both RNs and LPNs in Michigan compared to nurses *in the same license renewal cohort* who responded to the survey in 2005, as shown by the following survey results.

- About 27 percent of *active* registered nurses in this license renewal cohort are aged 55 or older (see Exhibit 2), compared to 22 percent of active registered nurses in the same license renewal cohort who responded to the survey in 2005. In the survey responses for 2007, the average age of active RNs licensed in Michigan is 47.3 years.
- About 35 percent of *active* licensed practical nurses in this license renewal cohort are aged 55 or older, compared to 30 percent in 2005. In the survey responses for 2007, the average age of active LPNs licensed in Michigan is 48.9 years.

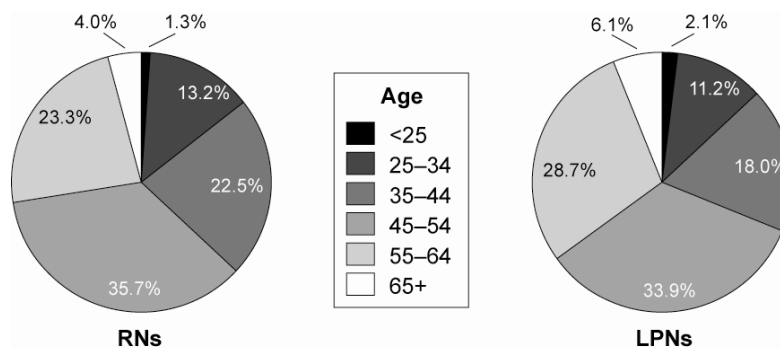
In the license renewal cohort responding to the survey in 2006, about 18 percent of RNs and 25 percent of LPNs were aged 55 or older. In the licensure renewal survey for 1998–99, about 14 percent of RNs and 19 percent of LPNs were aged 55 or older.

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### EXHIBIT 2

Proportion of Active RNs and LPNs, by Age

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SOURCE: Michigan Center for Nursing Survey of Nurses 2007.

NOTE: Percentages presented here are based on bivariate analysis of age and employment status for all licensed nurses.

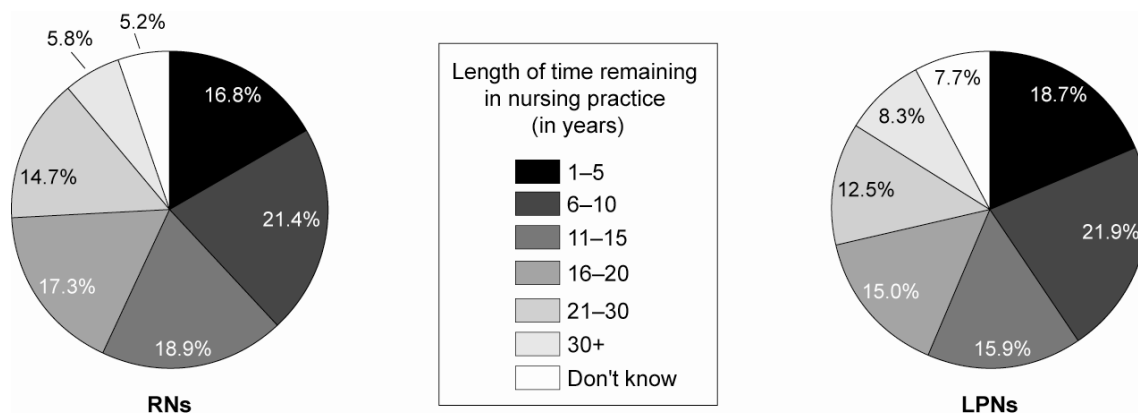
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<sup>4</sup> Nurse-to-population ratios for 2007 are calculated using the employment location reported by nurses and the U.S. Census Bureau annual population estimates for Michigan for 2006. Prior to 2004, licensure surveys used the mailing address of licensed nurses to estimate the number of nurses active in Michigan and nurse-to-population ratios. Using this methodology, the nurse-to-population ratio for 1998–99 was 1,079 nurses per 100,000 people.

## LENGTH OF TIME REMAINING IN NURSING

It is not just the nurses nearing retirement age who are planning to stop practicing nursing in the near future. As shown in Exhibit 3, about 38 percent of *all* active RNs and 41 percent of *all* active LPNs say they plan to practice nursing for only one to ten more years. This group is larger than it was in 2005, when 35 percent of all active RNs and 38 percent of all active LPNs *in the same license renewal cohort* said they planned to practice nursing for only one to ten more years.

**EXHIBIT 3**  
Plans to Practice Nursing for Active LPNs and RNs



SOURCE: Michigan Center for Nursing Survey of Nurses 2007.

## VOLUNTARY CHANGE IN NURSING POSITION

About 22 percent of all RNs and 21 percent of all LPNs surveyed said they had voluntarily left a nursing position in the last two years.

- Of the RNs who said they had voluntarily left a nursing position, 57 percent said it was to take another nursing position with a different organization and about 18 percent said it was to take another nursing position in the same organization.
- Of the LPNs who said they had voluntarily left a nursing position, 64 percent said it was to take another nursing position with a different organization and about 7 percent said it was to take another nursing position in the same organization.
- For RNs and LPNs who had left a nursing position, about 18 percent of RNs and 20 percent of LPNs said it was to retire or quit nursing.
- About 7 percent of the RNs and about 9 percent of the LPNs who had left a nursing position said it was to take a position outside nursing.

For those nurses who left a nursing position, the factors leading to their decision that were mentioned most often, in descending order, were “general lack of job satisfaction”; “personal or family concerns”; “inadequate salary/wages”; and “physical demands of the job” (see Exhibit 4).

**EXHIBIT 4**  
Factors Influencing Decisions to Leave a Nursing Position, 2007

<b>Factors</b>	<b>RNs</b>	<b>LPNs</b>
General lack of job satisfaction	43.0%	38.6%
Personal or family concerns	27.7	28.8
Inadequate salary/wages	22.2	26.3
Physical demands of the job	20.9	23.0
Career promotion	14.5	7.8
Employer/employee conflict	13.0	15.0
Increasing administrative burden	12.7	12.8
Age	12.5	11.7
Inadequate benefits	12.2	18.0
Childbearing/childrearing	7.5	5.4
Opportunity to work in nursing administration	3.9	2.2
Opportunity to work in nursing education	3.9	1.1

SOURCE: *Michigan Center for Nursing Survey of Nurses 2007.*

NOTE: Nurses were asked to indicate all factors that led to their decision to leave a nursing position in the last two years, so the sum of the percentages will be more than 100 percent.

**WORK SETTING**

Nearly three-fourths of active registered nurses (about 74 percent) are employed in either the hospital inpatient or outpatient setting (see Exhibit 5). The percentage of LPNs employed in the hospital setting has declined since 1992–93, from 44 percent to about 24 percent in 2007. Almost half of all active LPNs (about 45 percent) are employed in nursing homes or long-term care facilities.

**EXHIBIT 5**  
Employment Settings of Active RNs and LPNs, 2007

<b>Employment Settings</b>	<b>RNs</b>	<b>LPNs</b>
Hospital inpatient	57.5%	18.0%
Hospital outpatient	16.1	6.2
Non-hospital outpatient	3.8	2.7
Physician's office	6.6	17.0
Nursing home/long-term care facility	6.8	44.5
Home health	6.9	11.9
Public/community health	3.9	2.3
School health	1.3	1.2
Hospice	2.7	2.9
Nursing education	4.9	1.5
Insurance company/health plan	2.0	0.7
Traveling/temporary nurse	1.8	1.6
Other	8.2	7.1

SOURCE: *Michigan Center for Nursing Survey of Nurses 2007.*

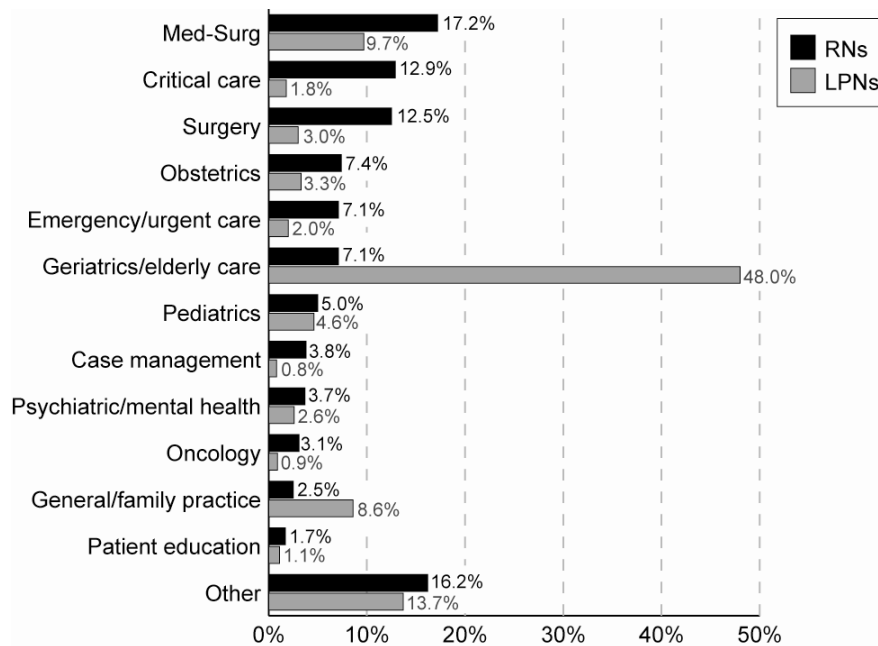
NOTE: Nurses were asked to indicate all of their current employment settings, so the sum of the percentages will be more than 100 percent.



## PRACTICE AREA

Approximately 85 percent of active RNs and 91 percent of active LPNs report that their main nursing position involves providing direct care services to patients/families. These nurses were asked to identify their main practice area from a list of areas given (see Exhibit 6). The practice area that RNs identified most often out of the choices offered was “med-surg.” Almost half (48 percent) of all active LPNs identified their main practice area as “geriatrics/elderly care.”

**EXHIBIT 6**  
Main Practice Area of Active RNs and LPNs, 2007



SOURCE: Michigan Center for Nursing Survey of Nurses 2007.

## EDUCATION

All nurses responding to the MCN Survey of Nurses were asked to indicate their level of education (i.e., all degrees completed).

- Approximately 6 percent of active RNs also hold an LPN diploma or an LPN certificate of nursing.
- About 22 percent of active RNs have an RN diploma in nursing, 46 percent have an associate's degree in nursing, and 38 percent hold a bachelor's degree in nursing. (Nurses may hold more than one nursing degree, so percentages total more than 100.)
- About 7 percent of active RNs hold a master's degree in nursing; about 4 percent hold a master's degree in another field; and less than 1 percent (0.3 percent) of registered nurses hold a doctorate in nursing.
- Approximately 97 percent of active LPNs have an LPN diploma or an LPN certificate of nursing.

- About 1 percent of active LPNs report an RN diploma in nursing and about 4 percent report an associate's degree in nursing.
- About 9 percent of RNs and 8 percent of LPNs report they hold some other degree.

## **RACIAL/ETHNIC BACKGROUND AND GENDER**

Data on racial/ethnic and gender characteristics of the nursing population in Michigan show that:

- 6.2 percent of active RNs and 5.1 percent of active LPNs are male
- 87.4 percent of active RNs are white, 6.2 percent are African American, 1.4 percent are American Indian/Alaskan Native, about 4 percent are Asian, and less than 1 percent are Middle Easterner or Pacific Islander
- 82.2 percent of active LPNs are white, 13.5 percent are African American, 2.4 percent are American Indian/Alaskan Native, 1.7 percent are Asian, and less than 1 percent are Middle Easterner or Pacific Islander
- 1.3 percent of RNs and 1.6 percent of LPNs are Spanish/Hispanic/Latino

## **METHODOLOGY**

The Michigan Center for Nursing contracted with Public Sector Consultants Inc. (PSC) for development, implementation, and analysis of the survey of nurses. One instrument for both RNs and LPNs was designed in collaboration with the Michigan Center for Nursing Advisory Board. The instrument contained questions about employment settings, practice areas, the length of time that the respondent intended to stay in the nursing profession, as well as a number of demographic questions (age, gender, race/ethnicity). The survey instrument for 2006 and 2007 also included questions on whether the nurse had left a position in nursing during the past two years, and, if so, what factors led to the decision to leave the previous nursing position. (The survey instrument and response frequencies for RNs and LPNs are provided in Appendix A and Appendix B. Data from the Michigan Center for Nursing Survey of Nurses 2004, 2005, and 2006 are included for reference.)

The samples for these surveys were drawn from the Michigan licensure files maintained by the Michigan Department of Community Health. All nurses are required to renew their license every two years. Therefore, the universe of nurses is divided into two cohorts of roughly equal size, depending on the year in which each nurse was first licensed. In 2007, 78,763 nurses (63,915 RNs and 14,848 LPNs) were eligible for license renewal. The surveys were mailed to nurses renewing their license in 2007, along with their license renewal forms. Nurses could either return the two-page paper version of the survey with their renewal or alternatively complete both the survey and their license renewal online. The large number of paper and Web-based surveys collected permit a robust analysis. Combining the responses from the paper version with the results from the Web survey resulted in a total of

- 43,676 completed RN surveys, yielding a margin of error of  $\pm 0.5$  percent with 95 percent confidence; and

- 9,098 completed LPN surveys, yielding a margin of error of  $\pm 1.0$  percent with 95 percent confidence.

These totals include fully and partially completed surveys (i.e., those with information missing for one or more variables); thus sample size for individual variables will differ and the margin of error may change slightly depending upon the amount of missing data for that particular variable.

# Appendix A

## Survey Instrument and RN Response Frequencies<sup>1</sup> 2004, 2005, 2006, and 2007<sup>2</sup>

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For 2007 survey results, N=43,676; margin of error ± 0.5 percent

This information is being collected by the Michigan Center for Nursing to describe the supply of and demand for nurses in Michigan. Data from this survey will be used to inform state and local decision making regarding the recruitment, education, and employment of nurses in Michigan. The information you provide will be confidential; the identity of individual respondents will not be shared with anyone. Completion of the questions below is voluntary and does not affect your license. However, this information is important and your participation is encouraged and truly appreciated. *Please complete the survey and return it with your renewal application in the envelope provided.* If you are both an LPN and an RN, complete and return only one survey.

If you renew your license via the Internet, you will have the opportunity to complete this survey online.

Go to [www.michigancenterfornursing.org](http://www.michigancenterfornursing.org) to view survey results and to sign up to receive Michigan Center for Nursing News & Updates electronically.

1. In what year were you born? (Note: Response frequencies are for active nurses only. N =36,823 in 2007.) Average age = 47.3.

Age	Percent 2004 (active only)	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
<25	1.4%	1.3%	1.6%	1.3%
25–34	18.9	15.9	18.4	13.2
35–44	27.1	24.7	28.8	22.5
45–54	35.2	36.6	32.8	35.7
55–64	15.7	19.3	16.1	23.3
65+	1.6	2.8	2.2	4.0

2. Are you a licensed practical nurse (LPN), a registered nurse (RN), or both? (Mark **one**. If you are both an LPN and an RN, complete and return only one survey.)

	Percent of RNs 2005	Percent of RNs 2006	Percent of RNs 2007
RN only	96.4%	95.8%	96.6%
Both LPN and RN	3.6	4.2	3.4

NOTE: This question was not asked on the 2004 survey.

<sup>1</sup> Frequencies reported may not equal 100 percent due to rounding.

<sup>2</sup> All nurses are required to renew their license every two years after receiving their first license, which results in two cohorts of nurses that are approximately the same size. Analysis of the four years of survey data shows a significant difference between these two cohorts of nurses in age distribution. Therefore, survey responses that may be affected by age—such as plans to continue practicing nursing—should be compared only to responses received from the same license renewal cohort two years ago (e.g., 2007 compared to 2005).

3. What is your education background? (Mark **all** that apply)

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) LPN diploma/certificate of nursing	—	3.7%	5.5%	5.8%
LPN certificate of achievement	—	1.9	—	—
b) RN diploma in nursing	—	22.3	18.7	21.9
c) Associate's degree in nursing	42.1%	44.4	48.4	45.8
d) Bachelor's degree in nursing	40.3	37.4	37.0	38.0
e) Master's degree in nursing	8.4	7.4	6.4	6.8
f) Master's degree in other field	—	—	3.9	4.4
g) Doctorate in nursing	0.4	0.3	0.3	0.3
h) Other degree	9.4	10.6	8.0	8.8

NOTE: In 2004, 21.8% of all RNs reported they held a diploma in nursing. On the 2005 survey, "diploma in nursing" was replaced as a response option by "LPN diploma in nursing," "LPN certificate of achievement," and "RN diploma in nursing." On the 2006 and 2007 survey, "LPN diploma in nursing" and "LPN certificate of achievement" were combined as one response option.

4. What is your current employment status? (Mark **one**)

	Percent 2004	Percent 2005	Percent 2006	Percent 2007
a) 35 or more hours per week in nursing or related area	62.3%	60.2%	61.6%	60.6%
b) Less than 35 hours per week in nursing or related area	24.5	24.9	23.0	24.2
c) Employed, but not in nursing	3.1	2.9	3.3	2.7
d) Not employed, and seeking employment in nursing or related area	1.8	1.7	1.8	1.6
e) Not employed, and seeking employment outside of nursing	0.4	0.2	0.2	0.2
f) Temporarily not working and not looking for a job	4.3	4.9	5.1	4.8
g) Retired or with no plans to return to work	3.7	5.1	4.9	6.0

5. Identify your current employment setting(s). (Mark **all** that apply)

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) None (not active in nursing)	4.7%	0.2%	0.2%	0.2%
b) Hospital inpatient	50.2	57.7	58.9	57.5
c) Hospital outpatient	13.7	15.9	14.6	16.1
d) Non-hospital outpatient	2.6	3.7	3.8	3.8
e) Physician's office	5.4	6.9	6.4	6.6
f) Nursing home/long-term care facility	5.6	7.2	7.1	6.8

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
g) Home health care	5.1%	6.8%	7.3%	6.9%
h) Public/community health	3.6	3.9	3.6	3.9
i) School health	1.1	1.3	1.2	1.3
j) Hospice	2.2	2.3	2.6	2.7
k) Nursing education	4.7	4.7	4.3	4.9
l) Insurance company/health plan	1.9	1.9	1.9	2.0
m) Traveling/temporary nurse	2.6	2.3	2.8	1.8
n) Other	7.4	8.6	8.4	8.2

6. Does your main nursing position involve providing direct care services to patients/families?

	Percent 2004 (active only)	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
Yes	82.6%	85.1%	85.7%	84.5%
No	17.4	14.9	14.3	15.5

7. If you provide direct care services, please identify your main practice area. (Mark **one**) (Note: Response frequencies for 2005, 2006, and 2007 are for *active* nurses only.)

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) Med-Surg	17.9%	16.0%	17.5%	17.2%
b) Surgery	11.7	11.4	10.5	12.5
c) Critical care	15.2	14.2	14.9	12.9
d) Pediatrics	5.9	5.2	5.6	5.0
e) Obstetrics	8.1	7.3	7.4	7.4
f) Geriatrics/elderly care	—	7.2	7.1	7.1
g) Oncology	—	2.8	2.9	3.1
h) Psychiatric/mental health	3.1	3.6	3.2	3.7
i) Emergency/urgent care	9.2	7.4	7.8	7.1
j) Patient education	2.2	2.1	2.7	1.7
k) Case management	5.1	7.7	11.8	3.8
l) General/family practice	3.3	2.0	1.2	2.5
m) Other (Fill in blank)	18.2	12.9	7.4	16.2

NOTE: "Geriatrics/elderly care" and "Oncology" were added as response options on the 2005 survey.

8. Where do you live? (Mark **one**)

	Percent 2005 (active only)	Percent 2007 (active only)
a) Michigan	87.6%	88.6%
b) Other state	8.9	8.5
c) Canada	3.3	2.7
d) Other nation	0.2	0.1

Note: As a result of a mailing error, the responses to this question were not valid for 2006.

9. Where is your primary place of employment? (Mark **one**)

	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) Michigan	89.4%	87.9%	89.8%
b) Other state in the U.S.	9.4	11.4	9.1
c) Canada	1.0	0.5	1.0
d) Other nation	0.2	0.2	0.2

10. If you live in the U.S. or if your primary place of employment is in the U.S., what are the Zip Codes of your residence and primary place of employment?

11. Did you graduate from a nursing school in the United States or in another nation?

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) United States	93.7%	92.8%	95.1%	93.4%
b) Other nation	6.3	7.2	4.9	6.6

One of the goals of the Michigan Center for Nursing is to increase diversity within the nursing profession. It would be helpful if you would answer the following questions:

12. What is your gender?

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) Female	92.2%	93.2%	92.1%	93.8
b) Male	7.8	6.8	7.9	6.2

13. Are you Spanish/Hispanic/Latino?

	Percent 2006 (active only)	Percent 2007 (active only)
a) Yes	1.5%	1.3%
b) No	98.5	98.7

14. What is your racial/ethnic background?

	Percent 2004	Percent 2005 (active only)	2006 Categories	Percent 2006 (active only)	Percent 2007 (active only)
a) American Indian/Alaskan Native	1.0%	0.7%	American Indian/Alaskan Native	1.3%	1.4%
b) Asian or Pacific Islander	3.4	4.0	Asian	3.3	3.9
			Native Hawaiian or Pacific Islander	0.2	0.3
c) Black, non-Hispanic	5.5	6.0	Black or African American	7.6	6.2
d) Hispanic	0.9	1.0			
e) White, non-Hispanic	87.7	86.9	White	86.0	87.4
f) Multiracial	0.8	0.8			
			Middle Easterner (Arab/ Chaldean/ Other)	0.3	0.3
g) Other/unknown	0.7	0.7	Some other race/ethnicity	0.7	1.5

15. To assist us in projecting the supply of nurses in the future, please tell us how much longer you plan to practice nursing.

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) 1–5 years	13.1%	14.8%	13.2%	16.8%
b) 6–10 years	18.0	20.3	19.8	21.4
c) 11–15 years	17.9	19.5	19.3	18.9
d) 16–20 years	18.9	18.5	20.1	17.3
e) 21–30 years	14.8	15.2	16.4	14.7
f) More than 30 years	5.1	5.4	5.5	5.8
g) Don't know	12.2	6.3	5.7	5.2

16. Have you voluntarily left a nursing position in the last two years?

	Percent 2006 (all RNs)	Percent 2007 (all RNs)
a) Yes	21.7%	21.5%
b) No	78.3	78.5



17. If you voluntarily left a nursing position in the last two years, was it to...(Mark **one**)

	Percent 2006 (of RNs who left a position)	Percent 2007 (of RNs who left a position)
a) take another nursing position in the <b>same</b> organization?	15.6%	18.0%
b) take another nursing position with a <b>different</b> organization?	56.1	57.4
c) take a position outside of nursing?	8.3	6.8
d) retire/quit nursing?	20.0	17.7

18. If you voluntarily left a nursing position in the last two years, what were the factors that led to this decision? (Mark **all** that apply)

	Percent 2006 (RNs who left a position)	Percent 2007 (RNs who left a position)
a) Age	12.6%	12.5%
b) General lack of job satisfaction	40.3	43.0
c) Childbearing/childrearing	10.7	7.5
d) Personal or family concerns	29.8	27.7
e) Increasing administrative burden	10.7	12.7
f) Physical demands of the job	20.3	20.9
g) Employer/employee conflict	14.1	13.0
h) Inadequate salary/wages	22.5	22.2
i) Inadequate benefits	11.9	12.2
j) Opportunity to work in nursing administration	3.2	3.9
k) Opportunity to work in nursing education	3.0	3.9
l) Career promotion	12.7	14.5

## Appendix B

### *Survey Instrument and LPN Response Frequencies<sup>1</sup> 2004, 2005, 2006, and 2007<sup>2</sup>*

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For 2007 survey results, N=9,098; margin of error  $\pm$  1.0 percent

This information is being collected by the Michigan Center for Nursing to describe the supply of and demand for nurses in Michigan. Data from this survey will be used to inform state and local decision making regarding the recruitment, education, and employment of nurses in Michigan. The information you provide will be confidential; the identity of individual respondents will not be shared with anyone. Completion of the questions below is voluntary and does not affect your license. However, this information is important and your participation is encouraged and truly appreciated. *Please complete the survey and return it with your renewal application in the envelope provided.* If you are both an LPN and an RN, complete and return only one survey.

If you renew your license via the Internet, you will have the opportunity to complete this survey online.

Go to [www.michigancenterfornursing.org](http://www.michigancenterfornursing.org) to view survey results and to sign up to receive Michigan Center for Nursing News & Updates electronically.

1. In what year were you born? (Note: Response frequencies are for active nurses only. N = 7,269 in 2007.) Average age = 48.9.

Age	Percent 2004 (active only)	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
<25	2.0%	5.0%	2.4%	2.1%
25–34	18.0	9.2	16.2	11.2
35–44	24.2	20.6	23.5	18.0
45–54	31.3	35.7	33.1	33.9
55–64	22.0	24.9	20.9	28.7
65+	2.4	4.6	3.9	6.1

2. Are you a licensed practical nurse (LPN), a registered nurse (RN), or both? (Mark **one**. If you are both an LPN and an RN, complete and return only one survey.)

NOTE: This question was used only to identify respondents as RNs or LPNs and to determine the proportion of RNs who also hold a diploma/certificate as a LPN.

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<sup>1</sup> Frequencies reported may not equal 100 percent due to rounding.

<sup>2</sup> All nurses are required to renew their license every two years after receiving their first license, which results in two cohorts of nurses that are approximately the same size. Analysis of the four years of survey data shows a significant difference between these two cohorts of nurses in age distribution. Therefore, survey responses that may be affected by age—such as plans to continue practicing nursing—should be compared only to responses received from the same license renewal cohort two years ago (e.g., 2007 compared to 2005).

3. What is your education background? (Mark **all** that apply)

	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) LPN diploma/certificate of nursing	78.7%	97.3%	97.1%
LPN certificate of achievement	22.7	—	—
b) RN diploma in nursing	0.7	0.7	0.9
c) Associate's degree in nursing	3.5	3.8	3.9
d) Bachelor's degree in nursing	1.0	1.0	0.9
e) Master's degree in nursing	0.1	0.0	0.1
f) Master's degree in other field	—	0.4	0.5
g) Doctorate in nursing	0.0	0.0	0.0
h) Other degree	5.5	7.1	7.5

NOTE: On the 2004 survey, LPNs were not asked for their education background.

4. What is your current employment status? (Mark **one**)

	Percent 2004	Percent 2005	Percent 2006	Percent 2007
a) 35 or more hours per week in nursing or related area	56.7%	55.0%	57.4%	54.3%
b) Less than 35 hours per week in nursing or related area	24.8	26.3	23.8	26.2
c) Employed, but not in nursing	5.4	4.8	4.9	4.3
d) Not employed, and seeking employment in nursing or related area	3.3	2.9	3.1	3.2
e) Not employed, and seeking employment outside of nursing	0.1	0.2	0.4	0.3
f) Temporarily not working and not looking for a job	5.0	5.8	6.1	5.6
g) Retired or with no plans to return to work	4.7	5.0	4.2	6.0

5. Identify your current employment setting(s). (Mark **all** that apply)

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) None (not active in nursing)	7.3%	0.4%	0.4%	0.4
b) Hospital inpatient	19.3	21.0	18.4	18.0
c) Hospital outpatient	4.8	5.9	5.7	6.2
d) Non-hospital outpatient	2.1	2.8	2.9	2.7
e) Physician's office	12.1	17.0	16.4	17.0
f) Nursing home/long-term care facility	35.0	44.4	46.9	44.5
g) Home health care	9.8	11.0	12.4	11.9
h) Public/community health	2.0	2.6	2.4	2.3

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
i) School health	1.6%	1.2%	0.9%	1.2%
j) Hospice	2.1	2.3	2.0	2.9
k) Nursing education	1.8	1.6	1.5	1.5
l) Insurance company/health plan	1.0	0.8	0.9	0.7
m) Traveling/temporary nurse	1.3	1.9	2.4	1.6
n) Other	8.4	7.0	6.7	7.1

6. Does your main nursing position involve providing direct care services to patients/families?

	Percent 2004 (active only)	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
Yes	82.4%	91.5%	92.3%	91.3%
No	17.6	8.5	7.7	8.7

7. If you provide direct care services, please identify your main practice area. (Mark **one**) (Note: Response frequencies for 2005, 2006, and 2007 are for *active* nurses only.)

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) Med-Surg	24.4%	11.1%	11.2%	9.7%
b) Surgery	3.0	2.8	2.7	3.0
c) Critical care	3.1	1.9	1.9	1.8
d) Pediatrics	7.3	4.4	4.7	4.6
e) Obstetrics	3.4	3.6	2.5	3.3
f) Geriatrics/elderly care	—	45.4	47.4	48.0
g) Oncology	—	0.9	0.6	0.9
h) Psychiatric/mental health	4.6	2.9	2.4	2.6
i) Emergency/urgent care	2.6	2.2	2.2	2.0
j) Patient education	5.2	2.5	3.6	1.1
k) Case management	2.8	3.8	7.0	0.8
l) General/family practice	13.8	6.7	5.3	8.6
m) Other (Fill in blank)	29.8	11.6	8.6	13.7

NOTE: "Geriatrics/elderly care" and "Oncology" were added as response options on the 2005 survey.

8. Where do you live? (Mark **one**)

	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) Michigan	95.5%	94.7%	95.0%
b) Other state	4.3	5.1	4.7
c) Canada	0.1	0.2	0.2
d) Other nation	0.0	0.0	0.0

9. Where is your primary place of employment? (Mark **one**)

	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) Michigan	95.0%	94.4%	94.4
b) Other state in the U.S.	4.9	5.4	5.3
c) Canada	0.1	0.1	0.2
d) Other nation	0.0	0.0	0.1

10. If you live in the U.S. or if your primary place of employment is in the U.S., what are the Zip Codes of your residence and primary place of employment?

11. Did you graduate from a nursing school in the United States or in another nation?

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) United States	98.6%	98.4%	98.7%	98.2%
b) Other nation	1.4	1.6	1.3	1.8

One of the goals of the Michigan Center for Nursing is to increase diversity within the nursing profession. It would be helpful if you would answer the following questions:

12. What is your gender?

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) Female	94.2%	95.4%	95.6%	94.9%
b) Male	5.8	4.6	4.4	5.1

13. Are you Spanish/Hispanic/Latino?

	Percent 2006 (active only)	Percent 2007 (active only)
a) Yes	2.1%	1.6%
b) No	97.9	98.4

14. What is your racial/ethnic background?

	Percent 2004	Percent 2005 (active only)	2006 Categories	Percent 2006 (active only)	Percent 2007 (active only)
a) American Indian/Alaskan Native	1.6%	1.1%	American Indian/Alaskan Native	2.7%	2.4%
b) Asian or Pacific Islander	1.5	1.7	Asian	1.4	1.7
			Native Hawaiian or Pacific Islander	0.1	0.2
c) Black, non-Hispanic	14.2	13.3	Black or African American	17.8	13.5
d) Hispanic	0.9	1.2			
e) White, non-Hispanic	80.5	81.4	White	77.3	82.2
f) Multiracial	0.9	0.8			
			Middle Easterner (Arab/ Chaldean/ Other)	0.2	0.1
g) Other/unknown	0.4	0.6	Some other race/ethnicity	1.0	1.8

15. To assist us in projecting the supply of nurses in the future, please tell us how much longer you plan to practice nursing.

	Percent 2004	Percent 2005 (active only)	Percent 2006 (active only)	Percent 2007 (active only)
a) 1–5 years	14.4%	16.7%	17.2%	18.7%
b) 6–10 years	18.2	21.3	21.7	21.9
c) 11–15 years	14.1	17.4	17.2	15.9
d) 16–20 years	15.7	16.0	16.1	15.0
e) 21–30 years	13.5	12.7	13.4	12.5
f) More than 30 years	7.8	7.7	7.4	8.3
g) Don't know	16.3	8.2	6.9	7.7

16. Have you voluntarily left a nursing position in the last two years?

	Percent 2006 (all LPNs)	Percent 2007 (all LPNs)
a) Yes	21.4%	20.9%
b) No	78.6	79.1

17. If you voluntarily left a nursing position in the last two years, was it to... (Mark **one**)

	Percent 2006 (LPNs who left a position)	Percent 2007 (LPNs who left a position)
a) take another nursing position in the <b>same</b> organization?	6.4%	6.9%
b) take another nursing position with a <b>different</b> organization?	61.4	63.7
c) take a position outside of nursing?	10.9	9.1
d) retire/quit nursing?	21.4	20.3

18. If you voluntarily left a nursing position in the last two years, what were the factors that led to this decision? (Mark **all** that apply)

	Percent 2006 (active only)	Percent 2007 (active only)
a) Age	12.7%	11.7%
b) General lack of job satisfaction	38.6	38.6
c) Childbearing/childrearing	5.4	5.4
d) Personal or family concerns	32.1	28.8
e) Increasing administrative burden	10.5	12.8
f) Physical demands of the job	22.7	23.0
g) Employer/employee conflict	15.7	15.0
h) Inadequate salary/wages	26.0	26.3
i) Inadequate benefits	19.3	18.0
j) Opportunity to work in nursing administration	1.8	2.2
k) Opportunity to work in nursing education	1.9	1.1
l) Career promotion	9.9	7.8