



# Keeping Health Care Blooming in Eastern Montana

Patti Iversen, RN, BSN  
Masters Thesis Overview – Masters in Nursing  
Gonzaga University September 2002



## Surveying Frontier Nurses

All eastern Montana RNs and LPNs were invited to participate in a survey to assist in identifying characteristics of the area's current nursing workforce. Included with each survey was a packet of seeds, with a note of thanks in advance for their help in "keeping health care blooming in eastern Montana".





## Five Major Survey Categories

- Personal demographics
- Educational preparation
- Professional characteristics
- Career projections
- Satisfaction



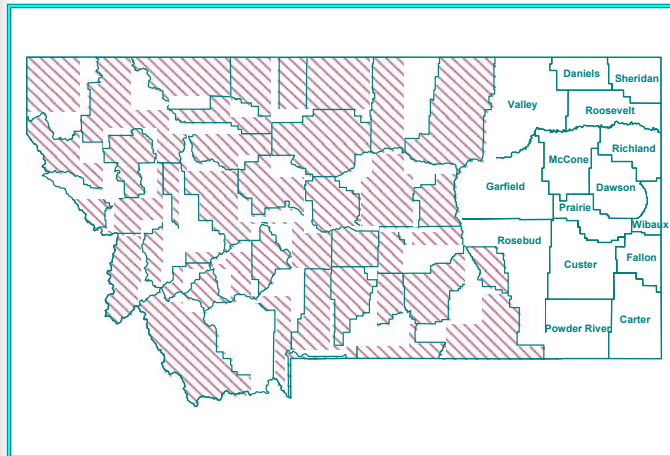
## Survey Tool Compilation

- Designed to provide comparison with National Sample Survey of Registered Nurses (NSSRN) and other data sources
- Questions loosely based on those of other surveys
- Permission received to use one specific question (#52) from another survey



## Counties Surveyed

- RNs and LPNs in 15 eastern Montana Counties were surveyed.



## Survey Process

- Perform literary search to identify areas for comparison
- Create draft survey tool
- Secure permission from Montana State Board of Nursing to use confidential list of licensed nurses in eastern Montana
- Solicit limited funding support: Montana Initiative for Nursing Transformation (MINT), Montana Area Health Education Center (AHEC), Sidney Health Center
- Mail surveys
- Compile data



## Response Rates

- With only one mailing, the response rate was statistically significant for the sample size (99% confidence interval).
- Combined response rate was 59.42%.

	RNs	LPNs	Combined
Total Mailed	702	195	897
Total Returned	433	100	533
Response Rate	61.68%	51.28%	59.42%



## Presented Survey Data

- Primary data and outcomes provided for each survey question. Additional in-depth discussions included in thesis
- Individually identifiable data excluded from both presentation and thesis



# 1. Age

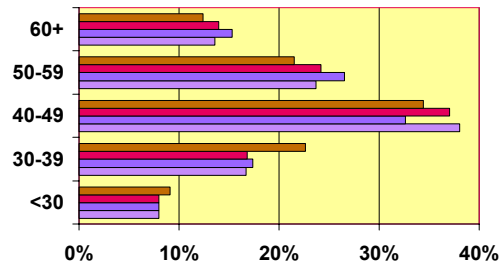
- Age distribution includes all respondents who provided age, regardless of working status, and includes national comparison from the National Sample Survey of Registered Nurses (NSSRN).

NSSRN reflects RNs only.

- The average nurse respondent (RNs and LPNs combined) was 46.7 years of age.
- LPNs tended to be older, with a mean age of 47.35, compared to the mean age of 46.55 for RNs.



Age Distribution of the Nursing Workforce in Eastern Montana (All Respondents)



	<30	30-39	40-49	50-59	60+
NSSRN	9.10%	22.60%	34.40%	21.50%	12.40%
Combined (n=529)	8%	17%	37.05%	24.20%	13.99%
LPN (n=98)	8%	17.35%	32.65%	26.53%	15.30%
RN (n=431)	8%	17%	38.05%	23.67%	13.60%



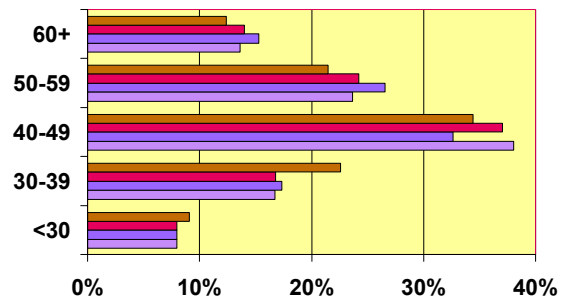
## Age (continued)

### Average Age Comparison (All Respondents)

	NSSRN	Combined	LPN	RN
Mean/SD	45.2/-----	46.7/11.35	47.35/11.48	46.55/11.33
Median	-----	47	47.35	46.55



### Age Distribution of the Employed Nursing Workforce in Eastern Montana (Full-time and Part-time combined)



	<30	30-39	40-49	50-59	60+
<b>NSSRN</b>	9.10%	22.60%	34.40%	21.50%	12.40%
<b>Combined (n=529)</b>	8%	17%	37.05%	24.20%	13.99%
<b>LPN (n=98)</b>	8%	17.35%	32.65%	26.53%	15.30%
<b>RN (n=431)</b>	8%	17%	38.05%	23.67%	13.60%



## Age (continued)

### Average Age Comparison (All Working Respondents)

	Combined	LPN	RN
Mean/SD	44.23/10.06	47.4/11/25	44.23/10.06
Median	45	48	45



## Age (continued)

### Percent Full-time Nursing Workforce

	NSSRN	Combined	LPN	RN
Percent Full-time	71.60%	74.63%	78.95%	73.64%

### Percent Part-time Nursing Workforce

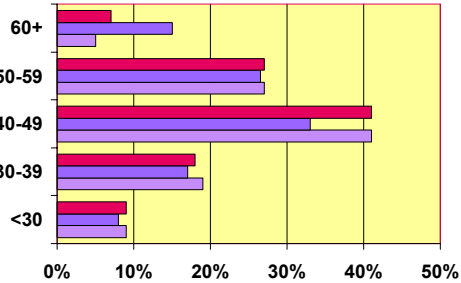
	NSSRN	Combined	LPN	RN
Percent Part-time	28.40%	23.37%	21.05%	26.36%

- Numbers are based of employed nurse respondents, (81% of all respondents)
- A small percentage of respondents (19%) were currently licensed but not employed in the nursing field



## Age (continued)

Age Distribution of the Full-time Nursing Workforce in Eastern Montana

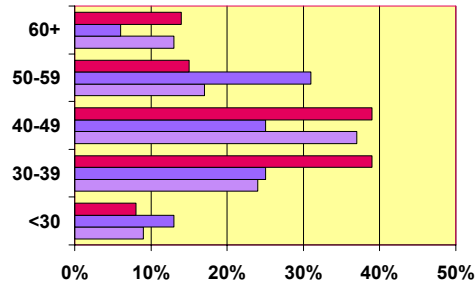


	<30	30-39	40-49	50-59	60+
Combined (n=529)	9%	18%	41%	27%	7%
LPN (n=98)	8%	17%	33%	27%	15%
RN (n=431)	9%	19%	41%	27%	5%



## Age (continued)

Age Distribution of the Part-time Nursing Workforce in Eastern Montana



	<30	30-39	40-49	50-59	60+
Combined (n=529)	8%	39%	39%	15%	14%
LPN (n=98)	13%	25%	25%	31%	6%
RN (n=431)	9%	24%	37%	17%	13%



## 2. Gender

- Majority of eastern Montana nurses (RNs and LPNs) were female (96.8%)
- Higher percent of female nurses than NSSRN (94.6%)
- Male nurses comprised 3.2%, compared to NSSRN 5.4%
- Eastern Montana male nurses (40%) were more likely to be employed in advanced nursing positions

	NSSRN	Combined	LPN	RN
Male	5.4%	3.2%	3.0%	3.2%
Female	94.6%	96.8%	97.0%	3.2%



## 3. Race/Ethnicity

- The majority of eastern Montana nurses (95.45%) were Caucasian/White.
- Overall minority eastern Montana nursing population was 4.55% compared to 12% of NSSRN respondent population.

	NSSRN	Combined	LPNs	RNs
Caucasian/White	88%	95.45%	89.90%	96.74%
Native American/Indian	0.5%	3.41%	10.10%	1.86%
Asian/Pacific Islander	3.7%	0.38%	0.0%	0.47%
Black/African American	4.9%	0.19%	0.0%	0.23%
Hispanic	2.0%	0.19%	0.0%	0.23%
Other	0.9%	0.38%	0.0%	0.47%



## 4. County of Residence

- Garfield County had the smallest nursing population – 6 RNs and 4 LPNs
- Largest nursing population was in Custer County with 199 RNs and 33 LPNs.
- RN responses by county ranged from 100% (Powder River County) to a low of 46.3% in Sheridan County.
- LPN responses ranged from 100% (McCone, Wibaux and Powder River Counties) to a low of 27.3% in Sheridan County.



## 5. Years of Residence in County

- The majority of eastern Montana nurses (59.7%) have resided in the same county for 20 or more years.

	Combined	LPNs	RNs
<5 years	13.6%	15.3%	13.32%
5-9 years	12.36%	12.24%	12.38%
10-14 years	8.37%	5.10%	9.11%
15-19 years	5.89%	6.12%	5.84%
≥20 years	59.7%	61.2%	59.35%

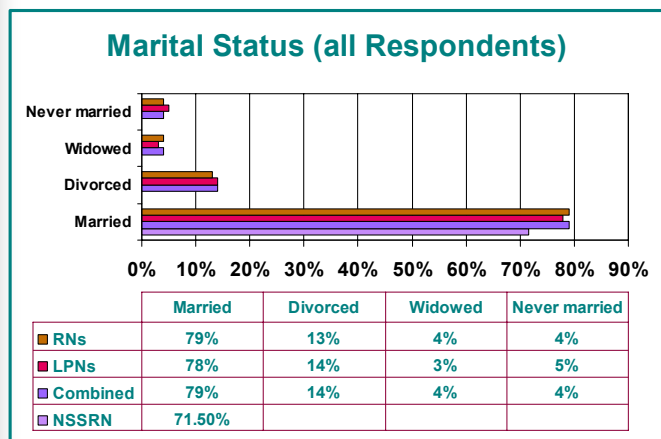


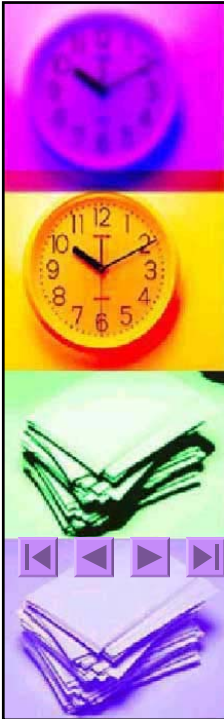
## 6. Marital Status

- The majority of eastern Montana nurses (79%) were married.
- This is higher and statistically significant when compared to the NSSRN findings of 71%. (More than 5 percentage points variance.)



## 6. Marital Status





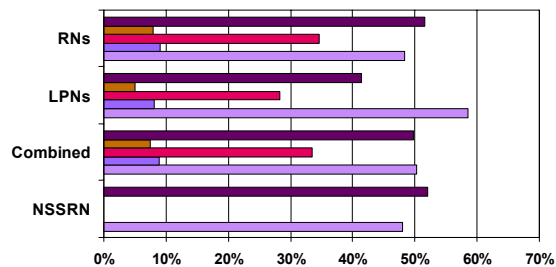
## 7. Dependent Children

- The combined percents of RNs and LPNs with/without children at home were nearly 50%, similar to the NSSRN findings.
- The combined percent of RNs and LPNs without children at home was 50.28%, compared to the NSSRN of 48%.
- Likewise, the combine percent of RNs and LPNs with children at home was 49.72%, compared to the NSSRN of 52%.



## 7. Dependent Children

Dependent Children (All Respondents)



	NSSRN	Combined	LPNs	RNs
■ Children at home	52.00%	49.72%	41.41%	51.64%
■ Mixed: <6/>6		7.40%	5.05%	7.94%
■ All 6 years or older		33.40%	28.28%	34.58%
■ All less than 6 years		8.92%	8.08%	9.11%
■ No children at home	48.00%	50.28%	58.59%	48.36%



## 8. Annual Income of Household

- Household income was reported by 80% of respondents.
- LPNs: average annual household income \$46,964
- RNs: average annual household income \$56,093
- Combined: average annual household income -- \$54,529



## 9. Current Residence

- The majority of nurse respondents (88.2%) own their home.
- Only 11.8% respondents reported rental status.





## 10. Miles Traveled One Way to Work

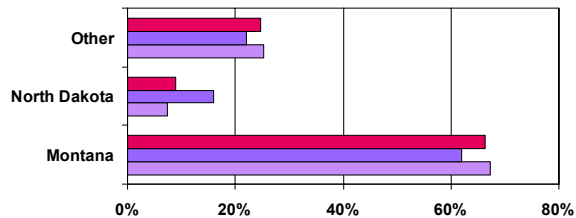
- The mean distance traveled was 18.15 miles.
- However, over half (51.26%) drove fewer than 5 miles.
- Some respondents reported traveling nurse status, which affected the mean distance.



## 11. Attended High School in:

- The majority of respondents (66.3%) attended high school in Montana.

State of High School Attendance

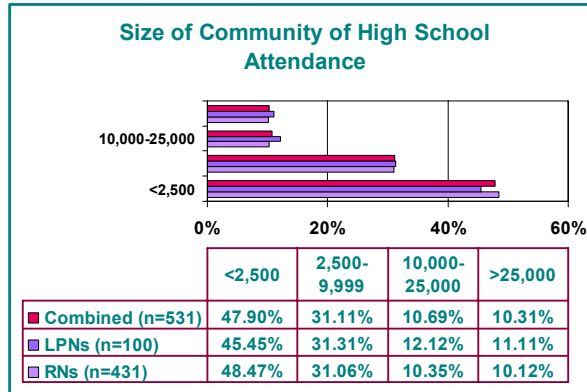


	Montana	North Dakota	Other
■ Combined (n=531)	66.30%	9.00%	24.70%
■ LPNs (n=100)	62.00%	16.00%	22.00%
■ RNs (n=431)	67.30%	7.40%	25.30%



## 12. Size of Community Where You Attended High School

- Nearly half of respondents (47.9%) attended high school in a rural community with a population of less than 2,500.



## 13. Primary Reason for Choosing Rural Community for Residence

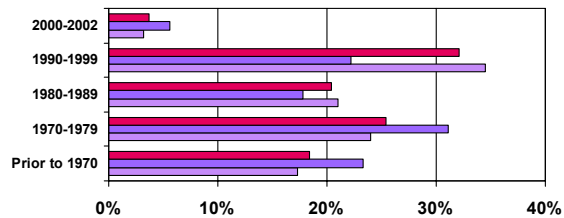
- Decision to live in rural community was primarily based on personal preference for more than half of the respondents (55.93%).
- Employment of a significant other ranked 2<sup>nd</sup> for 34.27% of the respondents, with farm/ranch spouse employment as the most common occupation.
- Only 7.53% cited a nursing employment opportunity as the primary reason for choosing to live in a rural community.

## 14. Basic Nursing Preparation

### Average Year of Graduation from Basic Nursing Preparation

	Combined	LPN	RN
Mean/SD	1981/12.76	1980/12.77	1982/12.72
Median	1982	1977	1983

### Year of Graduation from Basic Nursing Preparation Program



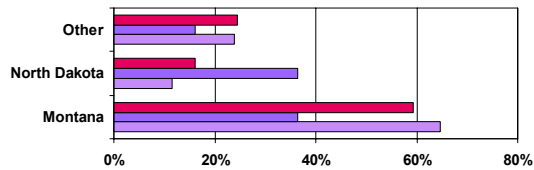
	Prior to 1970	1970-1979	1980-1989	1990-1999	2000-2002
■ Combined (n=461)	18.40%	25.38%	20.39%	32.10%	3.69%
■ LPNs (n=90)	23.33%	31.11%	17.78%	22.22%	5.56%
■ RNs (n=371)	17.25%	23.99%	21.02%	34.50%	3.23%



## 15. Location of School Attended for Basic Nursing Preparation

- The majority of respondents (59.3%) graduated from a basic nursing preparation program through a Montana school .

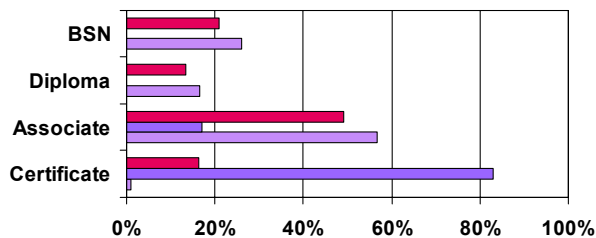
State of Graduation from Basic Nursing Preparation



	Montana	North Dakota	Other
■ Combined (n=531)	59.30%	16.20%	24.50%
■ LPNs (n=100)	36.40%	36.40%	16.20%
■ RNs (n=431)	64.60%	11.60%	23.80%

## 16. Degree Earned in Basic Nursing Preparation

Basic Nursing Preparation



	Certificate	Associate	Diploma	BSN
■ Combined (n=531)	16.40%	49.20%	13.40%	21.00%
■ LPNs (n=100)	83%	17%	0.00%	0.00%
■ RNs (n=431)	0.90%	56.60%	16.50%	26.00%



## 17. If additional degree(s) pursued, highest nursing degree held:

- Only 13.3% (n=71) of eastern Montana nurse respondents (compared to 19.0% NSSRN respondents) pursued an additional nursing degree beyond basic preparation.
- Most common additional degree attained was a baccalaureate (52.1%).
- Masters degrees were obtained by 24 respondents (33.8%).



## 18. Location of School Attended for Additional Degree:

- Montana: 32.9%
- North Dakota: 25.6%
- Other: 41.4%



## 19. Presently Seeking or Interested in Seeking an Additional Degree in Nursing?

- RN respondents: 25% reported interest in seeking an additional degree in nursing
- LPN respondents: 32.3% reported interest in seeking an additional degree in nursing



## If YES, what type of program would you prefer?

- Distance learning was identified as the overwhelming preference among nurses (93.2%) who indicated interest in seeking an additional degree in nursing.

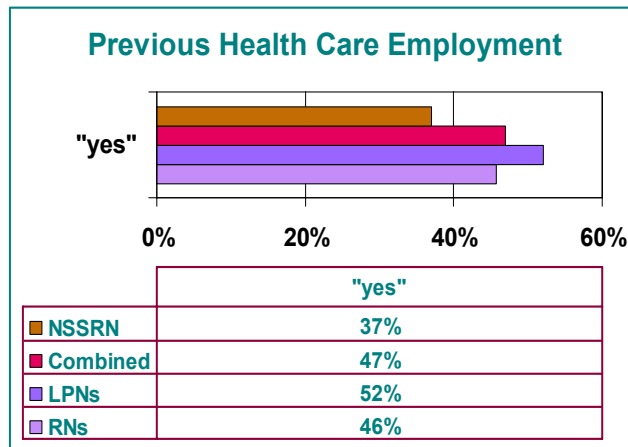


## 20. Presently Seeking or Interested in Seeking a Non-nursing Degree?

- Interest in pursuing a non-nursing degree was expressed by 11.7% of respondents.
- Respondents were not asked to specify the type of non-nursing degree that might be pursued or its relevance to nursing.



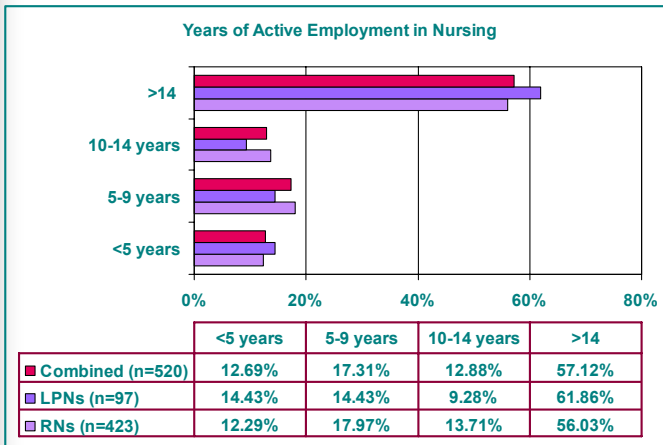
## 21. Previous health care employment prior to entry into a basic nursing preparation program?





## 22. Total number of years actively employed as a nurse:

- The majority of respondents (57.2%) had been employed in nursing for 15 years or longer.
- The typical nurse had been employed in nursing for 17.5 years. (SD 11.1)





## 23. Currently employed in nursing?

- The majority of RN respondents (81.17%) are currently employed in nursing.
- LPNs (79.17%) responded YES to reflect current nursing employment.
- NSSRN reflected similar findings, reporting that 81.7% of RNs were employed in nursing.



## 24. Number of hours per week for which you were employed to work:

- Mean number of hours was 36.11 hours per week (SD 9.78)
- Majority of workforce (74.63%) were employed full-time (greater than 35 hours per week).

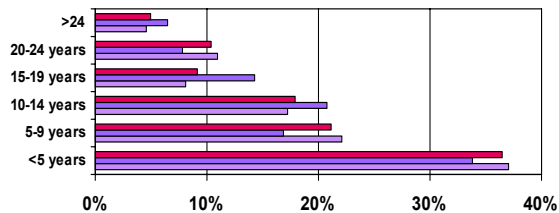


## 25. Number of years employed in current facility/organization:

- Typical nurse had been employed in her current facility/organization for 9.58 years (SD 8.17).
- Approximately a quarter of nurses had worked for the same employer for 15 or more years.



Years of Employment at Current Facility/Organization



	<5 years	5-9 years	10-14 years	15-19 years	20-24 years	>24
■ Combined (n=425)	36.47%	21.18%	17.88%	9.18%	10.35%	4.94%
■ LPNs (n=78)	33.77%	16.88%	20.78%	14.29%	7.79%	6.49%
■ RNs (n=348)	37.07%	22.13%	17.24%	8.05%	10.92%	4.60%



## 26. Usual length of scheduled shift/day:

- Average shift length was 9.98 hours (SD 2.28).
- Shifts of 12 hours or more were reported by 43.68% of respondents.
- Only 4.30% respondents reported shifts of fewer than 8 hours.

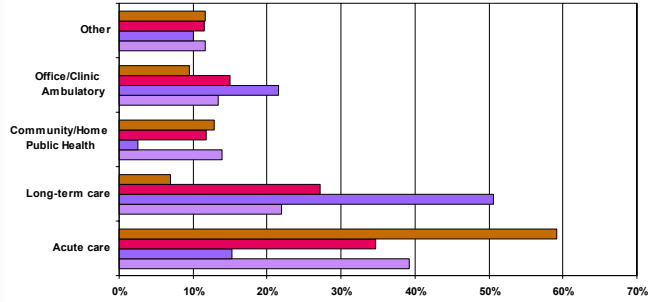


## 27. Primary reason for working current number of hours:

- Personal choice (for 51.2% of respondents) was the primary reason for working current number of hours.
- While approximately 50 percent reported that they had children at home, only 6.5% reported that dependent care influenced their hours of employment.

## 28. Primary Field of Employment

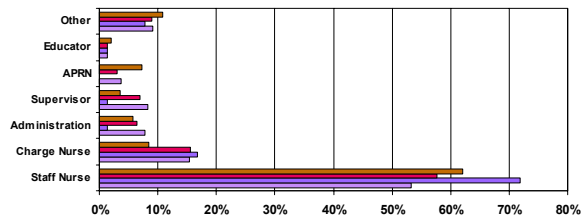
### Primary Nursing Field of Employment



	Acute care	Long-term care	Community/Home Public Health	Office/Clinic Ambulatory	Other
NNSRN	59.10%	6.90%	12.80%	9.50%	11.70%
Combined (n=432)	34.60%	27.20%	11.80%	15.00%	11.50%
LPNs (n=79)	15.20%	60.60%	2.50%	21.50%	10.10%
RNs (n=352)	39.20%	21.90%	13.90%	13.40%	11.60%

## 29. Primary Type of Position

### Primary Nursing Positions



	Staff Nurse	Charge Nurse	Administration	Supervisor	APRN	Educator	Other
NNSRN	62.00%	8.40%	5.70%	3.60%	7.30%	2.10%	10.90%
Combined (n=429)	57.60%	15.60%	6.50%	7.00%	3.00%	1.40%	8.90%
LPNs (n=78)	71.80%	16.70%	1.30%	1.30%	0.00%	1.30%	7.70%
RNs (n=350)	53.30%	15.40%	7.70%	8.30%	3.70%	1.40%	9.20%



30. Certified in any nursing specialty area(s) such as AORN, CCRN, etc?

- Specialty certification was reported by 22% of RNs and 2.5% of LPNs.



31. Member of any national professional nursing organization(s) such as ANA?

- RNs were more likely to belong to a national professional nursing organization (18.3%) than LPNs (5%).



### 32. Belong to a union or collective bargaining unit?

- Few nurses reported membership in a union or collective bargaining unit.
- RNs: 12.9%
- LPNs: 3.7%



### 33. Ever off work because of low census?

- Approximately one-fourth (26.9%) of respondents reported that they experienced low census work loss.
- Mean hours lost per month: 12.3 hours (SD 12.3)



### 34. Work overtime (scheduled or unscheduled) due to inadequate staff availability?

- Overtime was reported by 65.5% of nurses.
- Mean overtime hours per month: 16.78 hours (SD 15.55)



### 35. Current Hourly Wage

- RNs reported an average hourly wage of \$19.46 (SD \$5.31). Median hourly wage was \$18.75.
- LPNs averaged an hourly wage of \$13.36 (SD \$2.52). Median hourly wage was \$12.94.



36. Employer offer a wage differential between ADN (RN) and BSN educational levels?

- Yes: 13.3%
- No: 86.7%



37. Employer offer health insurance?

- Most respondents (93.9%) reported that their employer provided health insurance.



### 38. Employer offer a pension plan?

- Pension plans were provided by employers of 86.6% nurses.
- Participation in the pension plan was reported by 76.4% of respondents.



### 39. Employer offer paid continuing education?

- Over three-quarters (78.9%) of respondent nurses reported paid continuing education through their employer
- Applicable types of continuing education included local in-services, regional conferences and tuition reimbursement.



#### 40. When did you last attend a health care conference outside of your community?

- RNs were more likely to have attended a professional conference outside of their communities within the past year (54.4%) than LPNs (24.4%).
- Almost half (45.2%) of LPNs had not attended a conference outside their communities in over three years compared to 20.7% of RNs.



#### 41. Subscribe to any professional nursing journals?

- Over half of RNs (61.8%) subscribe to a professional nursing journal compared to 40.3% of LPNs.



## 42. Facility have access to telemedicine services (ITV)?

- Over three-fourths (79.3%) of respondents reported access to telemedicine services/ITV through their facility/organization.



## 43. Personal access to Internet, either at home or at work?

- The majority of nurses (79.3%) reported access to Internet either at home or at work.



## 44. How long do you plan to continue working for your employer?

Plans to change employer in the next year:

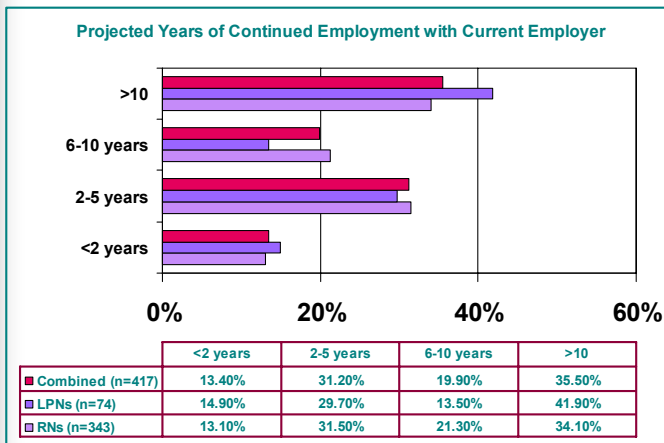
- Frontier Nurses: 13.4%
- NSSRN: 18.6%
- AONE (2002): 16%

Plans to continue employment for 10 or more years:

- Frontier Nurses: 35.5%
- Nursing Executive Center: 26%



## How long do you plan to continue working for your employer? (continued)





## 45. If considering leaving current position, what are your future employment plans?

- Majority of nurses (50.1%) reiterated that they had no plans to leave current position in the near future.
- Among those considering a change, 27.6% planned to pursue alternate nursing employment, 7.8% planned to leave nursing for non-nursing related employment and 14.5% reported plans to retire.



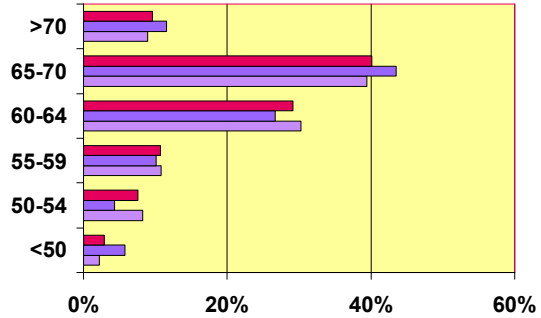
## 46. At what age do you anticipate complete retirement from nursing?

### Average Anticipated Age for Retirement Comparison

	NSSRN	Combined	LPN	RN
Mean/SD	-----	61.9/6.6	62.7/7.4	61.7/6.4
Median	-----	63	65	63.8



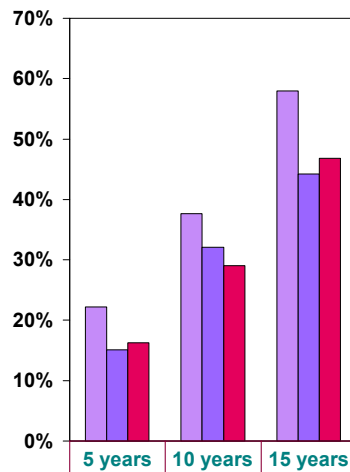
### Anticipated Age for Retirement for Eastern Montana Nurses



	<50	50-54	55-59	60-64	65-70	>70
■ Combined (n=384)	2.86%	7.55%	10.68%	29.17%	40.10%	9.64%
■ LPN (n=69)	5.80%	4.35%	10.14%	26.67%	43.48%	11.59%
■ RN (n=314)	2.23%	8.28%	10.83%	30.25%	39.40%	8.92%



### Cumulative Retirement Rates for Eastern Montana RNs



	5 years	10 years	15 years
■ LPNs	22.24%	37.68%	57.97%
■ RNs	15.06%	32.05%	44.23%
■ Combined	16.23%	29.06%	46.86%

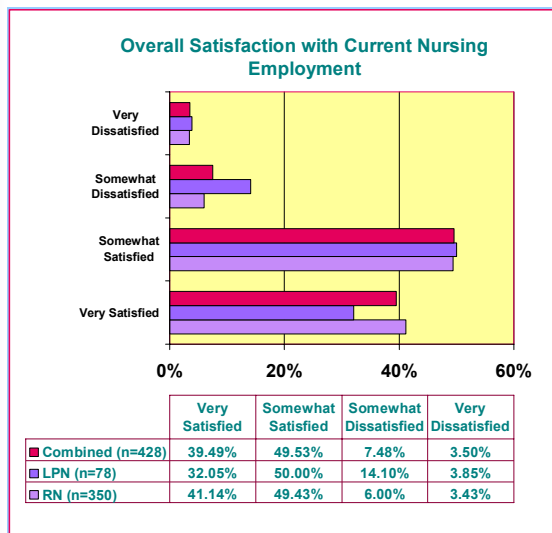


## 47 & 48. Plan to continue working at least as many hours per week as you currently work until complete retirement?

- The majority of nurses (60.1%) plan to continue their current level of employment until complete retirement.
- Among nurses who plan to reduce their hours of work prior to retirement, the average anticipated aged for reduction in workforce participation was 52.9 years (SD 11.5).



## 49. Rate overall satisfaction with your current job in nursing:





## Satisfaction...

### Satisfaction Comparison

	NSSRN	Combined	LPN	RN
Mean/SD	-----	1.75/0.74	1.89/0.78	1.72/0.73
Median	-----	2	2	2



50. Would you recommend your facility/organization to family and friends for their health care needs?

- Most (89.9%) nurses would recommend their facility/organization compared to 40% reported in the ANA 2001 survey.



## 51. Would you recommend nursing as a career to someone considering entry into a health care field?

- Nurses in eastern Montana were more likely to recommend nursing as a career than respondents to the American Nurses Association (ANA) study (2001) and American Organization of Nursing Executives (AONE) study (2002).
- Eastern Montana RNs: 74.4%
- Eastern Montana LPNs: 74.0%
- Eastern Montana Combined: 74.2%
- ANA: 46.0%
- AONE: 60.0%



## ... Why or why not:

- Positive recommendation was most commonly based upon “personal satisfaction” and “job diversity/variety”.
- Negative recommendation reflected concerns over “poor wages” and “high stress/responsibility levels”.
- Respondents frequently expressed ambivalence with statements such as, “yes, but only if they knew what they were getting into” or “I still believe that nursing is a wonderful profession, but a lot of changes need to be made”.



52. MOST IMPORTANT aspects of the work environment that would keep you working, return you to work or increase the number of hours you are currently working:

### Top Four Identified Aspects:

- Salary and benefits
- Flexibility in scheduling
- Personal growth and education
- Realistic patient workload



### Contact Information:

- Patti Iversen, RN, BSN
- [bpns@midrivers.com](mailto:bpns@midrivers.com)