



Wisconsin
Public and Community Health
Registered Nurse
Workforce Report



Wisconsin Public and Community Health Registered Nurse Workforce Report

Wisconsin Department of Health Services

This report was prepared by the Division of Public Health, Wisconsin Department of Health Services in consultation with the Wisconsin Department of Workforce Development.

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Foreword

This report presents key descriptive information about the Wisconsin public and community health registered nurse (RN) workforce, based on data from the 2010 *Wisconsin Registered Nurse Workforce Survey*. The Department of Safety and Professional Services (formerly the Department of Regulation and Licensing) conducted this survey as part of the re-licensure process for Wisconsin RNs. The *Wisconsin Public and Community Health Registered Nurse Workforce Report* is a component of the Collaborative Response to a Growing Workforce Crisis grant program, which is funded by the Healthier Wisconsin Partnership Program “Advancing a Healthier Wisconsin” endowment at the Medical College of Wisconsin.

The Division of Public Health would like to acknowledge and thank Wisconsin RNs for completing the survey. By doing so, they have contributed to a better understanding of Wisconsin’s public and community health RN workforce and assisted Wisconsin in planning for emergency preparedness needs of the state.

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The survey instrument can be found at: <http://worknet.wisconsin.gov/worknet/>. Copies of this report are available on the Department’s website at: <http://www.dhs.wisconsin.gov/health/workforce/index.htm>. Suggestions and comments may be addressed to:

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Introduction

This report reflects selected results from a survey of registered nurses (RNs) called the *Wisconsin Registered Nurse Workforce Survey*, conducted in 2010 by the Wisconsin Department of Regulation and Licensing (now the Department of Safety and Professional Services). Data were collected during the re-licensure process of Wisconsin RNs. The goal of the survey was to provide data that would answer questions about RNs to support efforts to ensure a sufficient nursing workforce capacity in Wisconsin. In the survey, all Wisconsin licensed registered nurses were asked questions about their education, employment, intentions to stay in direct-care nursing, and demographics. The data are used by policymakers and numerous stakeholders.

Findings from the statewide survey were reported in an earlier publication, developed by the Wisconsin Department of Workforce Development, entitled *RN Survey Summary*. That report is available at: http://worknet.wisconsin.gov/worknet/worknetinfo.aspx?htm=nurse_summary. This report focuses on registered nurses who work in public and community health settings.

From the Wisconsin RN Workforce Survey, selected data on the public and community health nursing workforce were extracted and analyzed for this report. The report's purposes include the following:

- Document the education and skills of Wisconsin's public and community health nursing workforce.
- Describe the diversity of public and community health RNs, their intentions to remain in direct nursing care, and their experience with emergency preparedness and response.
- Draw comparisons between the state's public and community health nursing workforce and the RN workforce in all other settings.
- Compare Wisconsin's 2010 public and community health RN workforce data to national 2008 RN data.
- Provide analyses that will contribute to forecasts of the future supply of public and community health RNs.

The [National Sample Survey of Registered Nurses](#) is the largest survey of RNs in the United States and was first conducted in 1977. The most recent national survey was conducted in 2008. Data from that survey are used in this report to represent the United States RN population.

Key Findings

Public and Community Health Registered Nurses

- Public and community health RNs constituted 5 percent (3,116) of the total Wisconsin RN workforce in 2010. The other 95 percent of Wisconsin RNs worked in settings that include nursing homes, extended care facilities, academic institutions, ambulatory care settings, home health, and hospitals.

Educational Preparation of Public and Community Health Registered Nurses in Wisconsin

Highest Level of Overall Education:

- In Wisconsin public and community health settings, 72.2 percent of RNs held a bachelor's or higher degree as compared to 57.2 percent of RNs in all other settings.

Highest Level of Nursing-Related Education:

- A Bachelor of Science in Nursing was the most commonly reported nursing-related education among public and community health RNs.
- The percentage of Wisconsin public and community health RNs whose highest nursing-related education was a bachelor's degree was 57.4 percent, as compared to 42.5 percent in all other settings, and 33.7 percent nationally.
- The percentage of Wisconsin public and community health RNs whose highest level of nursing-related education was at the graduate level was 10.4 percent.

Diversity of Public and Community Health Registered Nurses in Wisconsin

- In Wisconsin public and community health settings, 6.2 percent of RNs were male.
- The racial composition of Wisconsin RNs in public and community health settings is similar to the racial composition of RNs in all other Wisconsin settings.
- As a whole, the racial and ethnic distribution of the Wisconsin RN workforce is substantially different from that of the state's population.
 - While 85.4 percent of the state's population is non-Hispanic White, 94.9 percent of Wisconsin's RN workforce is non-Hispanic White.
 - Hispanics, Blacks, and American Indians/Alaska Natives are underrepresented in the RN workforce.
 - Hispanics constitute 5.2 percent of the state population, but only 1.3 percent of RNs.
 - Blacks make up 6.4 percent of the state population, but only 2.1 percent of RNs.
 - Asians and Native Hawaiians/Other Pacific Islanders are also underrepresented among the Wisconsin RN workforce, with 1.5 percent of RNs reporting a racial

background of Asian, Native Hawaiian, or other Pacific Islander, compared with 2.3 percent of the state population.

- The average age of Wisconsin public and community health RNs was 50 years.
- Registered nurses in public and community health tended to be older than RNs in all other settings, with lower percentages in younger age groups and higher proportions in older age groups.

Employment of Public and Community Health Registered Nurses in Wisconsin

- In 2010, median annual earnings from their primary jobs for RNs employed full-time in Wisconsin public and community health settings were \$57,000, compared to \$62,000 for RNs employed full-time in all other Wisconsin settings. (The median is the point at which half earned more and half earned less.)
- Wisconsin full-time employed public and community health RNs and RNs in all other settings worked a similar number of hours per week.
- Public and community health RNs employed part-time worked an average of 4 hours less per week than RNs in all other settings: 20.9 hours versus 25 hours.
- Among Wisconsin public and community health RNs providing direct patient care, the average age was nearly 50 years.
 - Of these nurses under age 55, 1.7 percent of nurses intended to leave direct care nursing within two years, with 6.9 percent undecided.
 - Of these nurses age 55 and older, 4.8 percent intended to leave direct care nursing within two years, with 7.7 percent undecided.

Advanced Practice Nursing in Public and Community Health Settings

- Seven percent of RNs in public and community health settings reported they were trained as advanced practice nurses.

Wisconsin Registered Nurses: Emergency Preparedness Training and Response

- In 2010, 50 percent of Wisconsin RNs had received training in emergency preparedness.
- Of public and community health RNs, 62 percent had received training in emergency preparedness, in comparison with 49 percent of RNs in all other work settings.
- Statewide, 12.3 percent of public and community health RNs were on the Wisconsin Emergency Assistance Volunteer Registry (WEAVR), compared with 1.4 percent of RNs in all other settings.

Questions and Answers about Public and Community Health Nursing

What Is Public and Community Health Nursing?

Public health nursing combines the body of knowledge from the public health sciences and professional nursing theories for the purpose of improving the health of the entire community. This goal lies at the heart of primary prevention and health promotion, and is the foundation for public health nursing practice. This definition is adapted from a work of the American Public Health Association, *Public Health Nursing Scope and Standards of Practice* (American Nurses Association, 2007, page 73).

Community health nursing combines nursing practice and public health practice to promote and preserve the health of populations. Health promotion, health maintenance, health education and management, coordination, and continuity of care are used in a holistic approach to the management of health care for individuals, families, and groups in a community. This definition is adapted from a work of the American Public Health Association, *Public Health Nursing Scope and Standards of Practice* (American Nurses Association, 2007, page 72).

The role of public and community health RNs in Wisconsin and throughout the nation has expanded in both scope and complexity. Recent events, including bioterrorism, natural disasters, and emerging infectious diseases and outbreaks, have drawn attention to the importance of the public health workforce and its links to national security and to individual and community health (Draper, 2008). The public and community health RN workforce also focuses on preventing disease, and promoting and protecting the health for all individuals and communities, in areas such as chronic disease prevention and management; maternal, child, and family health; control of communicable diseases including sexually transmitted disease; infection control; health promotion services to pre-school and school-age children, and adolescents; health information technology; and mental health services.

Who Are Public and Community Health Registered Nurses?

According to the [Wisconsin Public Health Workforce Report 2011](#):

The definition of the public health workforce includes all those who help carry out one or more of the [10 essential public health services](#), regardless of the nature of the employing agency (U.S. Department of Health and Human Services, *The Public Health Workforce: An Agenda for the 21st Century* (1997)). ... This definition recognizes that a wide range of professional disciplines, in various employment settings (governmental and non-governmental), are needed to sustain a public health system for maximum societal benefit (Wisconsin Department of Health Services, 2011, page 1).

Public and community health RNs are integral members of the larger public health system that promotes the health and safety of Wisconsin communities. RNs constitute the largest single occupational discipline in Wisconsin's local governmental health department workforce. They focus on preventing diseases and promoting physical and mental health for everyone. They care

for our school-aged children; assure safe and healthy workplaces and community environments; and prepare for and respond to community threats such as bioterrorism, chemical emergencies, radiation emergencies, mass casualties, natural disasters and severe weather, as well as disease outbreaks.

This report describes the public and community health nursing workforce using employment setting groupings similar to those in the report, *The Registered Nurse Population: Findings from the 2008 National Sample Survey of Registered Nurses*, U.S. Department of Health and Human Services (DHHS), Health Resources and Services Administration (HRSA) (September 2010).

For purposes of this report, RNs working in the following settings constitute the public health and community health registered nurse workforce:

- Public or community health settings, including state health or mental health agencies, city or county health departments, correctional facilities (non-hospital), community mental health organizations or clinics, substance abuse centers/clinics, other community settings;
- School health settings, including schools or school systems (K-12), colleges or universities, other school health settings;
- Occupational health settings (employee health service): private industry, government occupational health services, other occupational settings.

Consistent with the DHHS HRSA report, ambulatory care settings not located in hospitals, including community health centers and federal clinics (military, Veterans Affairs, National Institutes of Health or Indian Health Service supported), are not identified as community and public health settings for purposes of this report.

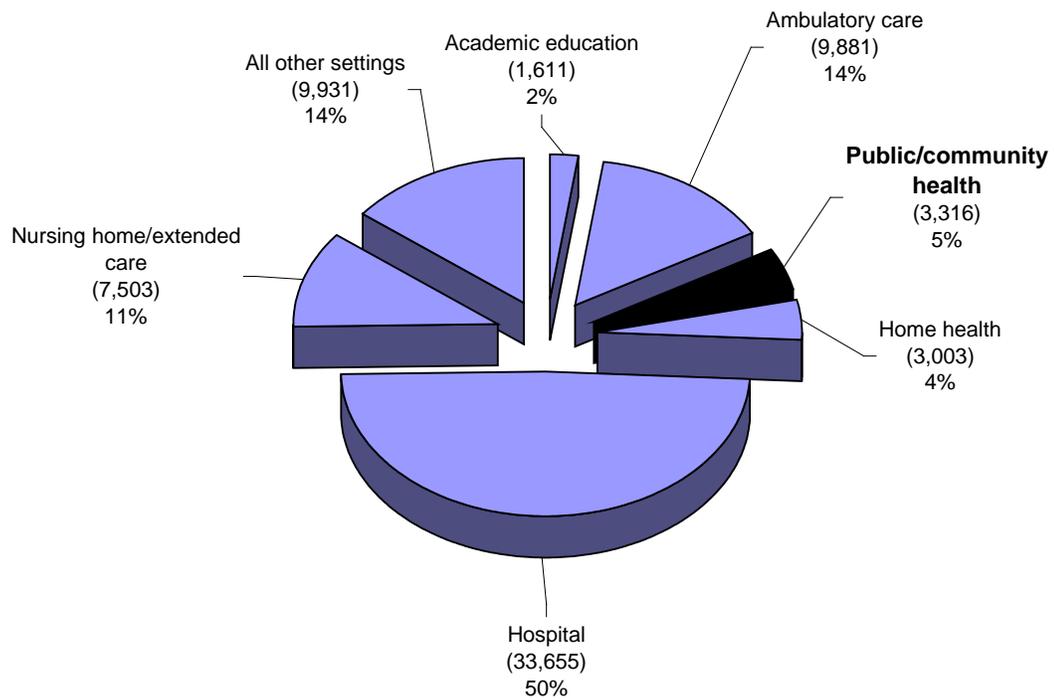
Based on these work setting classifications, public and community health RNs constitute 5 percent of the total Wisconsin RN workforce. The other 95 percent of Wisconsin registered nurses work in settings that include nursing homes, extended care facilities, academic institutions, ambulatory care settings, home health, and hospitals. Figure 1 shows the distribution of Wisconsin RNs by detailed work setting. Figure 2 shows the distribution of RNs by Wisconsin Department of Health Services (DHS) regions and broad categories of work settings.

Throughout this report, survey findings about RNs are compared by whether they work in public and community health settings or in “all other” settings.

The Bureau of Labor Statistics defines the work force (synonymous with labor force) as comprising those who are either employed or unemployed. Conceptually, the work force excludes those who are retired, students, those caring for family members, and others who are neither working nor seeking work. However, this report includes information from all licensed respondents, including those who indicated they were retired. This amounted to 4.9% of respondents. (U.S. Department of Labor, Bureau of Labor Statistics, BLS Glossary, 2008. Online at: <http://www.bls.gov/bls/glossary.htm>).

Overall, 50 percent of Wisconsin RNs are employed in hospitals (Figure 1). Ambulatory care settings (such as physician offices) employ 14 percent, and nursing homes/extended care settings employ 11 percent. Five percent are employed in public and community health and 4 percent are in home health. Two percent are employed in academic education and 14 percent are in all other settings.

Figure 1. Registered Nurses, Percent by Employment Setting, Wisconsin, 2010



When examined by Wisconsin DHS regions, the distribution of RNs in public and community health work settings is similar to that of RNs working in all other settings (Figure 2).

Figure 2. Registered Nurses, Distribution by Employment Setting and DHS Region, Wisconsin, 2010

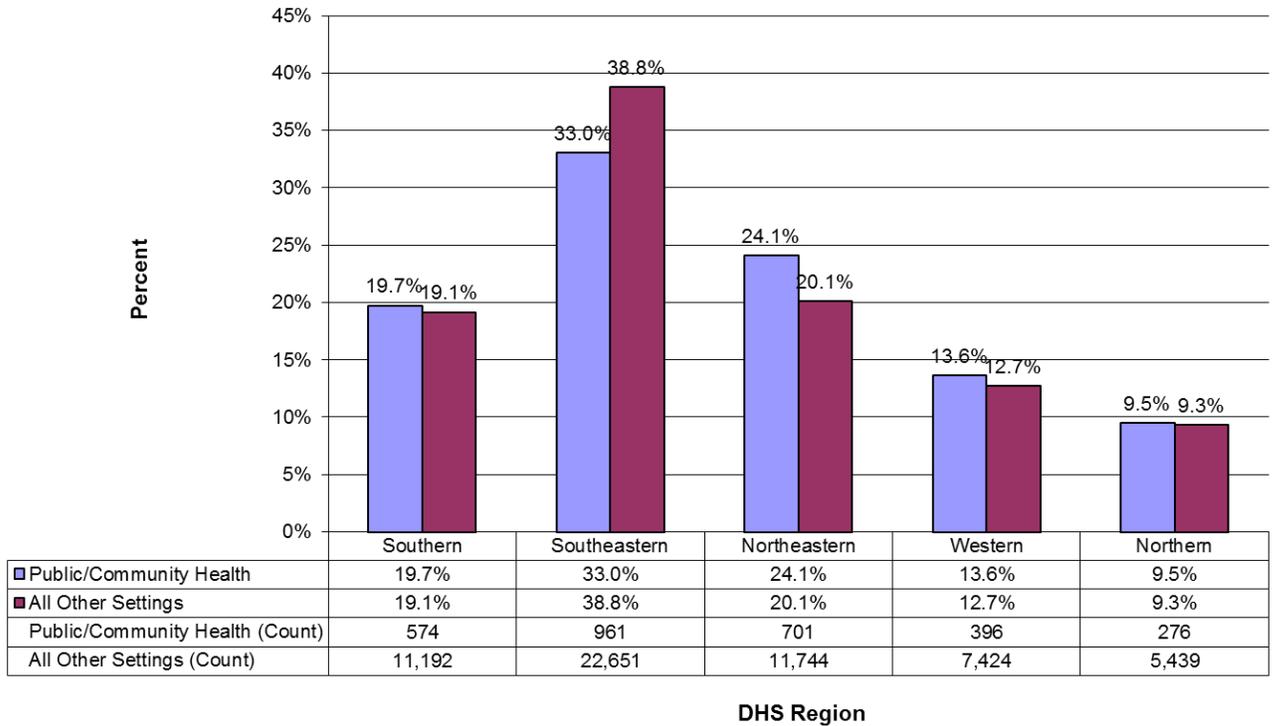
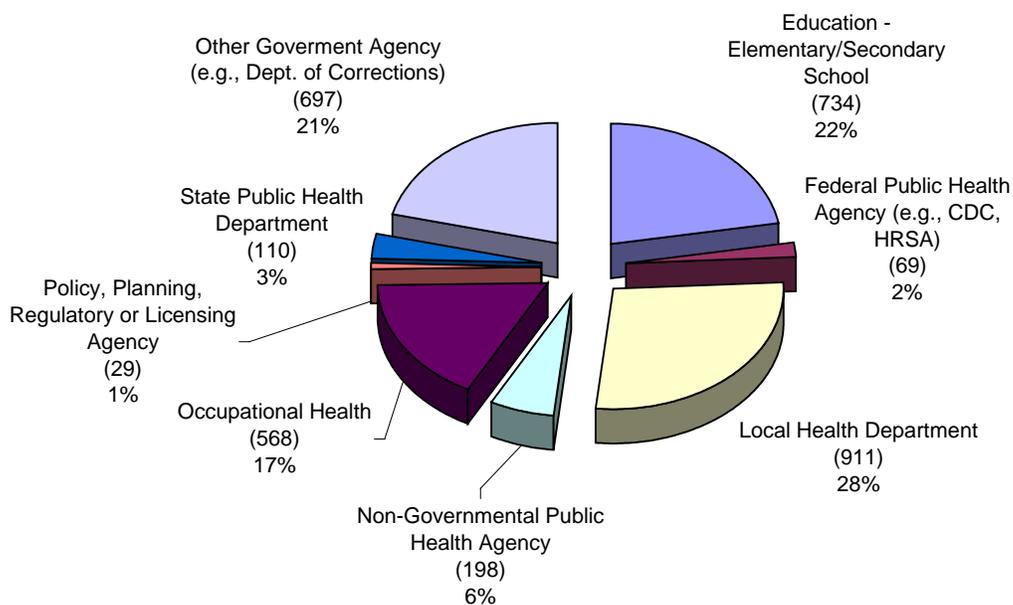


Figure 3 shows the distribution of public and community health RNs by type of employer.

- Only 5 percent were employed by state (3%) or federal (2%) public health agencies, while 21 percent were employed by other state or federal government agencies (e.g., Department of Corrections).
- Local health departments employed 28 percent of public and community health RNs.
- Elementary or secondary schools employed 22 percent of public and community health RNs.
- Occupational health settings employed 17 percent of public and community health RNs.
- Six percent were employed by non-governmental public health agencies.
- Just 1 percent of public and community health RNs were employed by policy, planning, regulatory or licensing agencies.

Figure 3. Public/Community Health Registered Nurses by Agency Type, Wisconsin, 2010



What Do We Know About Current Population Trends?

The population of the United States is projected to grow 38.1 percent from 2000 to 2035, with an average growth rate of 4.7 percent every five years (U.S. Census Bureau, 2008).

As highlighted in *Wisconsin Population 2035: A Report on Projected State and County Populations and Households for the Period 2000-2035 and Municipal Populations, 2000-2030*, the Wisconsin Department of Administration reported as follows:

The aging of Wisconsin's population is evident in the remarkable growth of the elderly population. Elderly people, defined as those aged 65 and over, are projected to increase by 111.5 percent by 2035. The bulk of this age group's growth will occur after 2010 when the "Baby Boom's" vanguard will enter the conventional retirement years. Their number in 2035 is projected to be 1,486,000, compared to their tally of 703,000 in 2000. Our oldest senior citizens, aged 85 and over, are expected to increase 133 percent over the same period, from 97,000 to 223,000. Finally, almost 1,000 centenarians were Wisconsin residents at the beginning of this century (persons 100 years or older). Their number is likely to be more than five times higher, at 5,700, by 2035 (DOA, 2008, page 8).

What Do We Know About the Registered Nurse Workforce?

2008 National Registered Nurse Workforce

Of the estimated 3,063,162 RNs living in the United States in 2008, 84 percent indicated they were employed in nursing. This is the highest rate of registered nurse employment since the national survey began in 1977 (HRSA, 2010).

The Health Resources and Services Administration uses the number of employed RNs per 100,000 people to measure the rate of growth of the RN workforce relative to the growth of the nation as a whole. In 2008, the United States population was approximately 358.7 million. There were an estimated 854 employed RNs per 100,000 people in the United States in 2008, an increase from 825 per 100,000 in 2004.

2010 Wisconsin Registered Nurse Workforce

In Wisconsin, 77,553 RNs responded to the 2010 statewide survey. Of these nurses, 68,889 (88.8%) indicated they were working as nurses in a variety of employment settings. The number of employed RNs per 100,000 people was also calculated for Wisconsin. In 2010, the Wisconsin population was 5,679,639, and there were 1,213 employed RNs per 100,000 people.

The Public and Community Health Registered Nurse Workforce

Nationally, in 2008, nearly 8 percent of RNs indicated they were employed in public and community health settings, or approximately 68.3 public and community health nurses per 100,000 people. In 2010, about 5 percent (3,316) of Wisconsin RNs reported working in a public or community health setting, or 58.4 public and community health RNs per 100,000 people (Wisconsin Department of Workforce Development, 2010).

What Are Key Issues for the Public and Community Health Nursing Workforce?

Wisconsin, like other states, is facing critical nursing workforce challenges. In 2010, after a two-year study to assess and transform the nursing profession in the United States, the Robert Wood Johnson Foundation and the Institute of Medicine (IOM) released a joint report entitled: [*The Future of Nursing: Leading Change, Advancing Health*](#) (IOM, 2010). The purpose of the report was to recommend an “action-oriented blueprint for the future of nursing” known as the [*Future of Nursing™ Campaign for Action*](#).

A number of barriers prevent nurses from being able to respond effectively to rapidly changing health care settings and an evolving health care system. These barriers need to be overcome to ensure that nurses are well-positioned to lead change and advance health (IOM, 2010).

Four key messages frame the report’s recommendations:

1. Nurses should practice to the full extent of their education and training.
2. Nurses should achieve higher levels of education and training through an improved education system that promotes seamless academic progression.
3. Nurses should be full partners, with physicians and other health care professionals, in redesigning health care in the United States.
4. Effective workforce planning and policy making require better data collection and an improved information infrastructure.

In 2011, the [*Wisconsin Center for Nursing*](#) (WCN) and the Rural Wisconsin Health Cooperative were selected as one of 15 State Action Coalitions in the Future of Nursing campaign. Wisconsin’s State Action Coalition provides leadership to achieve the blueprint of “advancing health, leading change.” State Action Coalitions receive technical assistance from the Center to Champion Nursing in America, an initiative of AARP, the AARP Foundation, and the Robert Wood Johnson Foundation. Finally, a generous grant from the Faye McBeath Foundation (Milwaukee, Wisconsin) provided resources to support [*regional activities*](#) to accomplish the blueprint in Wisconsin.

This initiative exemplifies [*Healthiest Wisconsin 2020: Everyone Living Better, Longer*](#) (the State Health Plan), which provides a framework for public and private partnerships to advance public health workforce initiatives.

How Are Workforce Issues Addressed in Healthiest Wisconsin 2020 (the State Health Plan)?

Healthiest Wisconsin 2020: Everyone Living Better, Longer is Wisconsin's public health agenda for the decade 2010 to 2020, required by Wisconsin Statute, Section 250.07(1) (a). *Healthiest Wisconsin 2020* was designed by many to be implemented by all. It provides an agreed-upon framework to work together to assure conditions in which people can be healthy, and be members of healthy, safe and resilient families and communities. It reflects the interests and hopes of sectors that include government; tribes; public, private, and voluntary organizations; and communities across Wisconsin. By working together under a common framework we can improve health, contain health care costs, strengthen quality of life for everyone, and share leadership and accountability for the health of the public.

Healthiest Wisconsin 2020 is the public health agenda and contains 23 focus areas identified by over 1,500 partners. Each focus area has two to three specific objectives, with measurable indicators and data sources to measure progress. The focus areas fall into three categories:

1. Crosscutting Focus Areas
2. Infrastructure Focus Areas
3. Health Focus Areas

In *Healthiest Wisconsin 2020*, one of the nine infrastructure focus areas centers on the public health workforce, and is entitled "Diverse, Sufficient, and Competent Workforce that Promotes and Protects Health." The current public health workforce is neither adequate in number nor reflective of Wisconsin's diversity. The aging of the current workforce and inadequate numbers of people entering health careers (the pipeline) are two important threats. These factors threaten the capacity of the state's health workforce to address current and emerging health needs and problems in the Wisconsin population.

The objectives of the public health workforce focus area are:

Objective 1

By 2020, assure a sufficient and diverse health workforce competent to practice in current and evolving delivery systems to improve and protect the health and well-being of all people and populations in Wisconsin.

Objective 2

By 2020, establish a sustainable system to collect and analyze public health system workforce data including data on sufficiency, competency, and diversity reflecting Wisconsin's communities.

To learn more and become engaged in the implementation of *Healthiest Wisconsin 2020*, please visit the website at <http://www.dhs.wisconsin.gov/hw2020/>, or email DHSBW2020@wisconsin.gov for more information.

Educational Preparation of RNs in Wisconsin

Education Measures

Both the national and Wisconsin RN surveys sought to measure nurses' educational preparation as a key indicator of the skill capacity of the RN workforce. However, the surveys differed slightly in the survey questions used to measure education.

The national RN survey in 2008 contained questions on the following:

- Highest initial RN education.
- Highest educational attainment after initial RN education (both nursing and non-nursing degrees).

The Wisconsin RN survey in 2010 contained questions on the following:

- Highest level of any education.
- Highest level of nursing-related education.

The next sections of this report describe survey findings on nursing education. National data will be presented in the narrative, but not represented in the graphs.

Registered Nurses: Highest Level of Overall Education

2008 National Registered Nurse Workforce

In 2008, the highest educational level for half of U.S. RNs was a diploma or an associate degree. The other half had a bachelor's or higher degree in nursing or a nursing-related field. Nearly two-thirds of RNs reported working in a health occupation prior to their initial nursing education. More than 21 percent of RNs earned an academic degree prior to their initial nursing degree. Of RNs with a bachelor's or higher degree, 32 percent reported that their initial RN education was a diploma or associate degree. These data demonstrate that many nurses pursue additional degrees after completion of their initial RN education (HRSA, 2010).

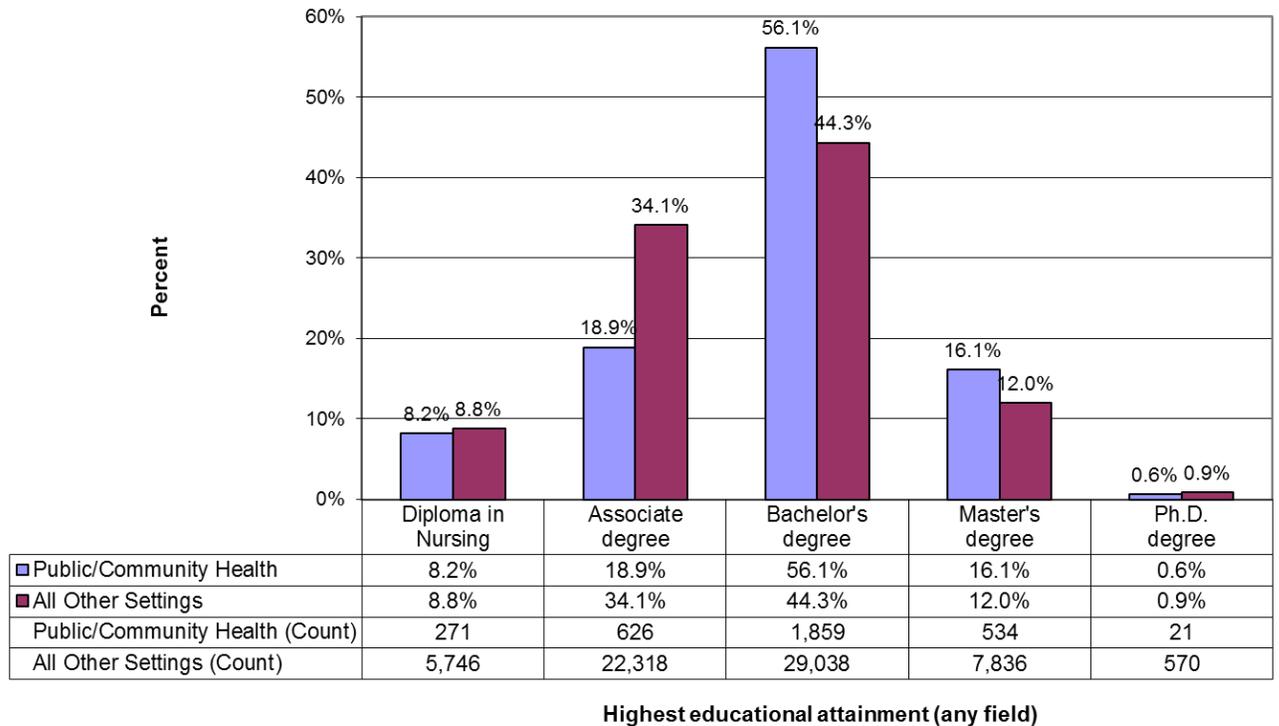
2010 Wisconsin Registered Nurses in Public and Community Health

In Wisconsin public and community health settings, 72.2 percent of RNs held a bachelor's or higher degree; 27.1 percent of RNs held a diploma or an associate degree as their highest level of education (Figure 4, next page).

2010 Wisconsin Registered Nurses in All Other Settings

In all other Wisconsin settings, 57.2 percent of RNs held a bachelor's or higher degree, whereas 42.9 percent of RNs held a diploma or an associate degree as their highest level of education.

Figure 4. Registered Nurses, Highest Level of Education by Work Setting, Wisconsin, 2010



NOTE: This includes non-nursing and nursing degrees.

Registered Nurses: Highest Level of Nursing-Related Education

Nursing Diploma

2008 National Registered Nurse Workforce

RNs in the United States whose initial nursing education was a nursing diploma dropped from 25.6 percent to 20.4 percent from 2004 to 2008. This decline continues a trend seen since 1980 (HRSA, 2010).

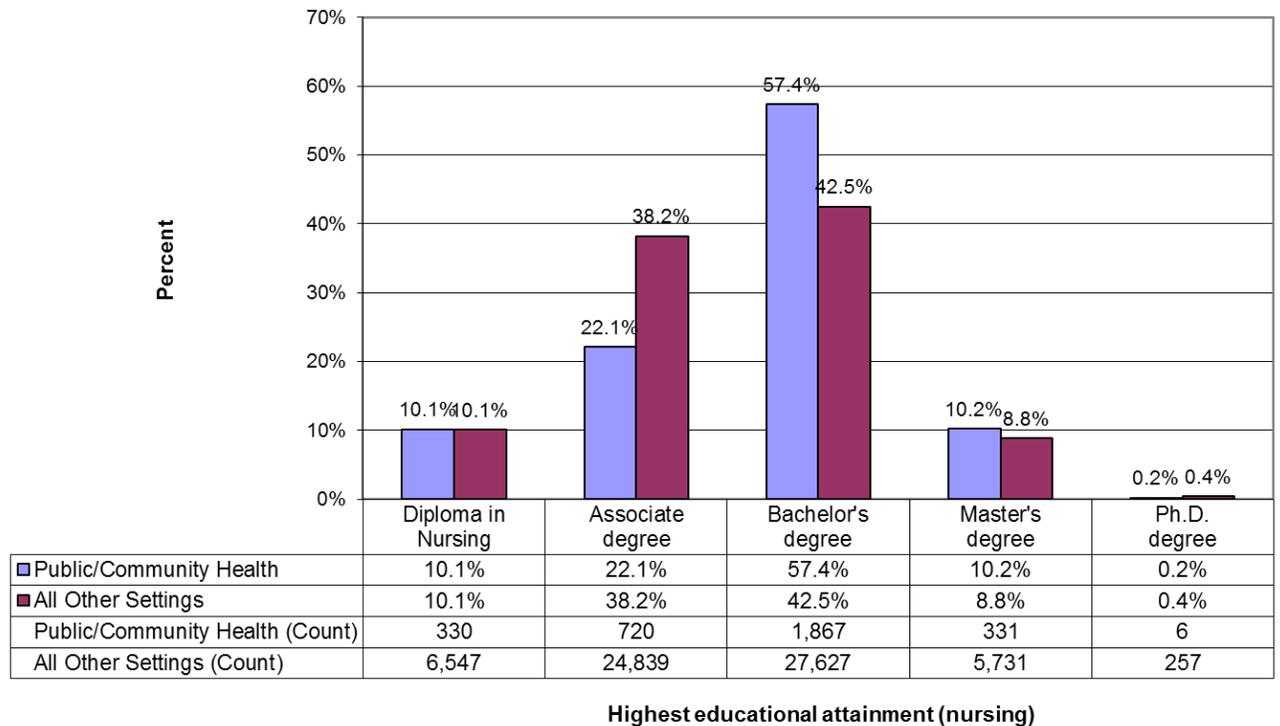
2010 Wisconsin Registered Nurses in Public and Community Health

Ten (10.1) percent of Wisconsin public and community health RNs reported a nursing diploma as their highest level of nursing-related education (Figure 5, next page).

2010 Wisconsin Registered Nurses in All Other Settings

The percentage of Wisconsin RNs in all other settings whose highest level of nursing-related education was a diploma was also 10.1 percent.

Figure 5. Registered Nurses, Highest Level of Nursing-Related Education by Work Setting, Wisconsin, 2010



Associate Degree in Nursing (ADN)

2008 National Registered Nurse Workforce

The most commonly reported nursing education of RNs in the United States was the associate degree. The percentage of nurses whose initial nursing education was an associate degree in nursing increased from 42.9 percent in 2004 to 45.4 percent in 2008 (HRSA, 2010).

2010 Wisconsin Registered Nurses in Public and Community Health

The percentage of Wisconsin public and community health RNs whose highest level of nursing education was an associate degree was 22.1 percent.

2010 Wisconsin Registered Nurses in All Other Settings

The percentage of Wisconsin RNs in all other settings whose highest level of nursing education was an associate degree was 38.2 percent.

Bachelor of Science in Nursing (BSN)

2008 National Registered Nurse Workforce

The percentage of nurses in the United States whose initial nursing education was a bachelor's degree increased from 31.0 percent in 2004 to 33.7 percent in 2008 (HRSA, 2010).

2010 Wisconsin Registered Nurses in Public and Community Health

The percentage of Wisconsin public and community health RNs whose highest nursing education was a bachelor's degree was 57.4 percent. It was the most commonly reported nursing-related education among public and community health RNs.

2010 Wisconsin Registered Nurses in All Other Settings

The percentage of Wisconsin RNs in all other settings whose highest level of nursing education was a bachelor's degree was 42.5 percent.

Graduate Degree in Nursing (GDN)

2008 National Registered Workforce

The percentage of RNs in the United States whose initial nursing education was at the graduate level was 0.5 percent in both 2004 and 2008. In 2008, 0.4 percent of RNs entered the profession with a master's degree in nursing and 0.03 percent entered with a doctoral degree (HRSA, 2010).

2010 Wisconsin Registered Nurses in Public and Community Health

The percentage of Wisconsin public and community health RNs whose highest level of nursing education was at the graduate level was 10.4 percent: 10.2 percent held a master's degree in nursing and 0.2 percent held a doctoral degree.

2010 Wisconsin Registered Nurses in All Other Settings

The percentage of RNs in all other Wisconsin settings whose highest level of nursing education was at the graduate level was 9.2 percent: 8.8 percent held a master's degree in nursing and 0.4 percent held a doctoral degree.

Registered Nurses: Location of Nursing-Related Education

2008 National Registered Nurse Workforce

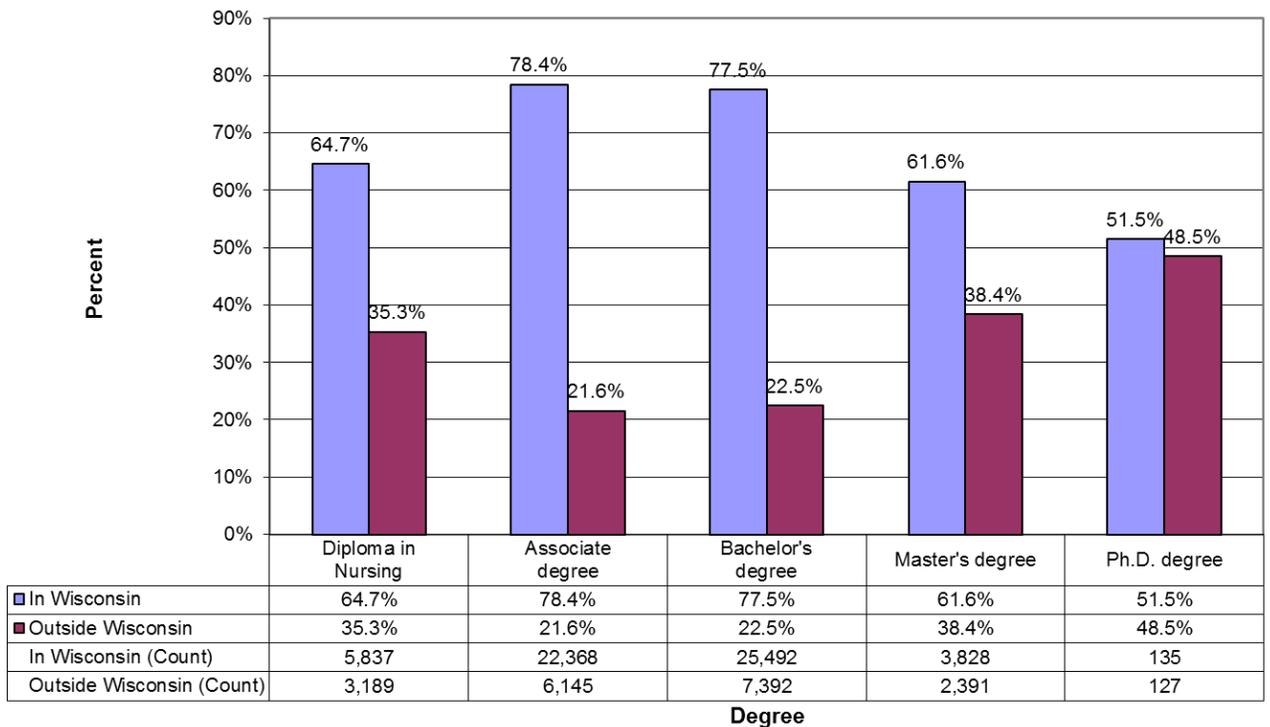
An estimated 170,235 RNs (5.6 %) living in the United States in 2008 received their initial nursing education in another country or a U.S. territory. This was an increase from 3.7 percent of RNs in 2004. About half (48.7 %) of internationally educated RNs living in the United States in 2008 were from the Philippines, 11.5 percent were from Canada, and 9.3 percent were from India (HRSA, 2010).

2010 Wisconsin Registered Nurses

Figure 6 displays the percentages of RNs who earned a nursing degree in Wisconsin and outside of Wisconsin by type of degree. (The data were similar for nurses in public and community health and in all other settings.) More than three-fourths of nurses who earned an associate or bachelor's degree did so in Wisconsin. In contrast, nearly half of nurses who pursued a doctorate did so out of state.

Small percentages of Wisconsin RNs earned their nursing degrees outside the United States: 0.8 percent of public and community health RNs, and 1.2 percent of RNs in all other settings (not shown).

Figure 6. Nursing Degree by Location Where Degree Was Obtained, All Registered Nurses, Wisconsin, 2010



Diversity of RNs in Wisconsin

Gender

2008 National Registered Nurse Workforce

Of all RNs in the United States, 6.6 percent were male in 2008. This was a small increase from 5.8 percent in 2004. Males made up a higher proportion of more recent nursing graduates. Only 4.1 percent of nurses who graduated in 1990 or earlier were male, while 9.6 percent of those who completed their initial RN education after 1990 were male.

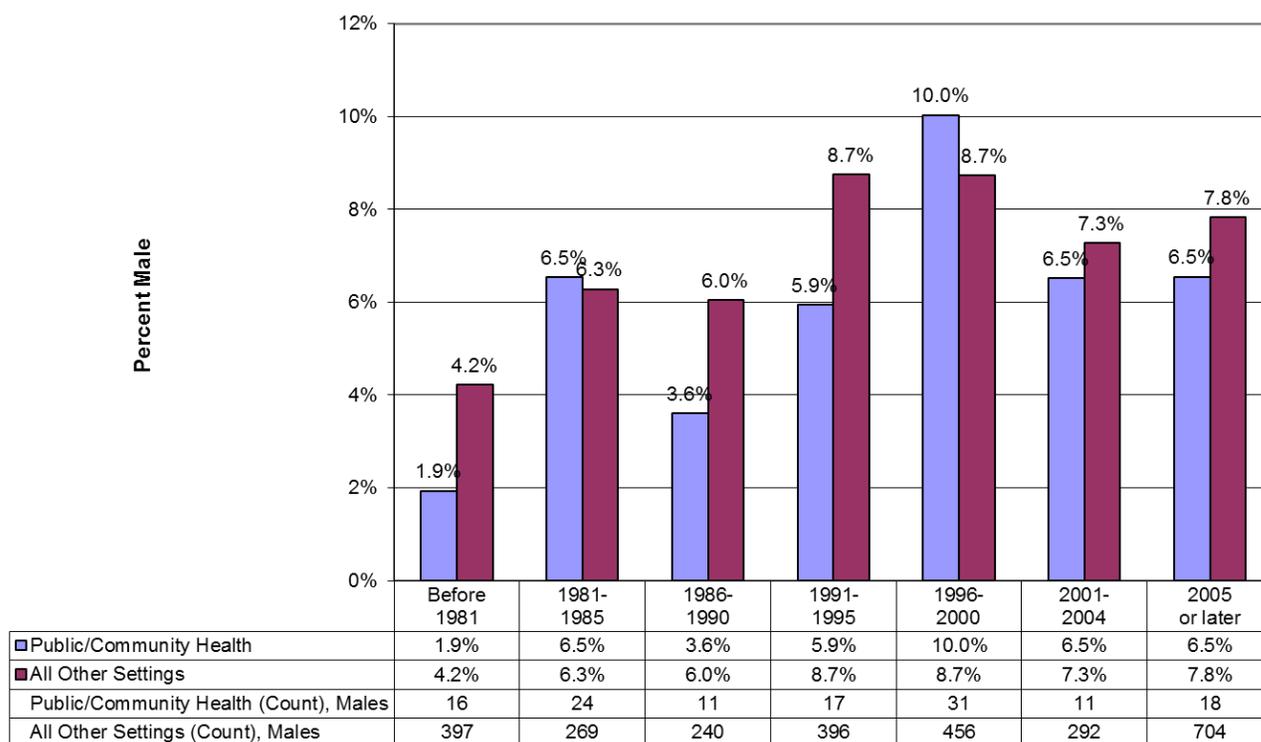
2010 Wisconsin Registered Nurses in Public and Community Health

Males as a percentage of RNs are shown by year of graduation in Figure 7. In Wisconsin public and community health settings, 6.2 percent of RNs were male. Males made up 3.4 percent of those who graduated before 1991, and 7.4 percent of nurses who completed their initial RN education in 1991 or after.

2010 Wisconsin Registered Nurses in All Other Settings

In all other Wisconsin settings, 7.1 percent of RNs were male. The share of male RNs in all other settings was also higher among more recent nursing graduates. Males made up 5.1 percent of those who graduated before 1991, and 8.1 percent of those who completed their initial RN education in 1991 or after.

Figure 7. Males as a Percentage of Registered Nurses, by Year of Graduation and Work Setting, Wisconsin, 2010



Race/ethnicity

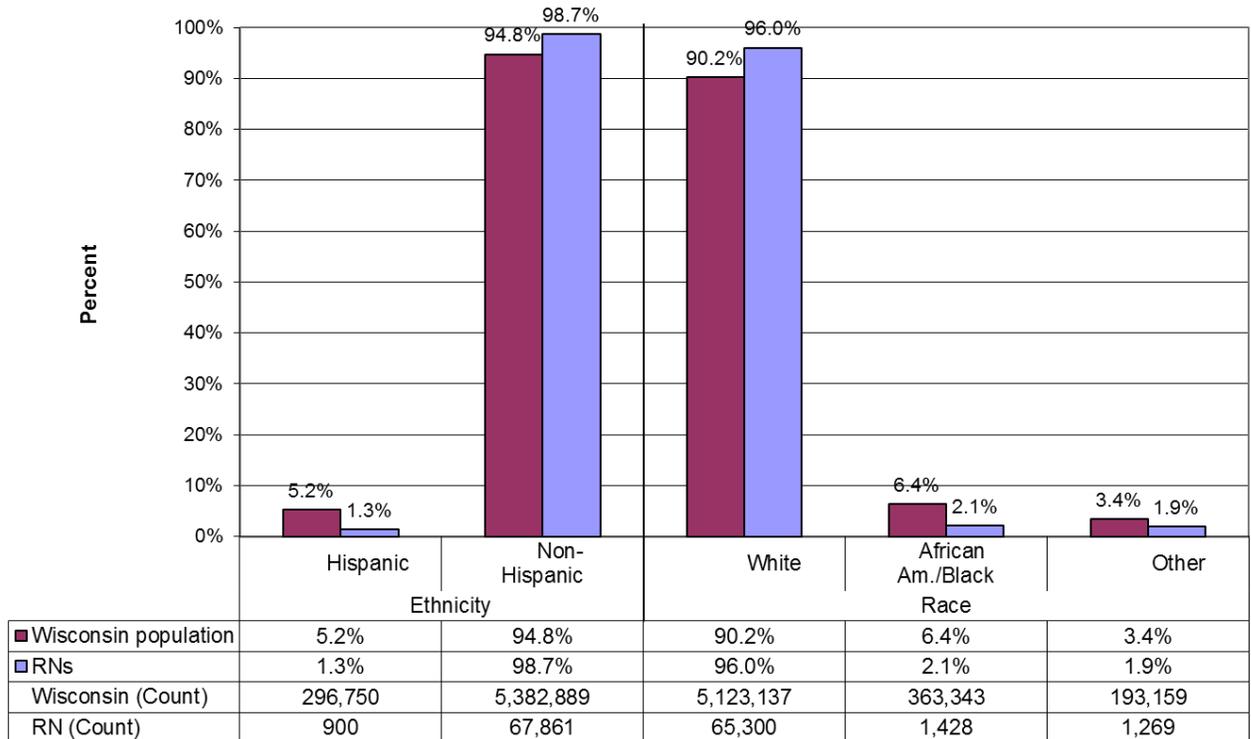
2008 National Registered Nurse Workforce

The racial and ethnic distribution of the RN workforce in the United States is substantially different from that of the U.S. population as a whole. For example, 65.6 percent of the U.S. population in 2008 was non-Hispanic White, while 83.2 percent of RNs were non-Hispanic White. Hispanics, Blacks, and American Indians/Alaska Natives are underrepresented in the RN workforce. Asians are slightly overrepresented among RNs, with 5.8 percent of RNs reporting a racial background of Asian, Native Hawaiian, or Pacific Islander, compared with 4.5 percent of the U.S. population.

2010 Wisconsin Registered Nurses

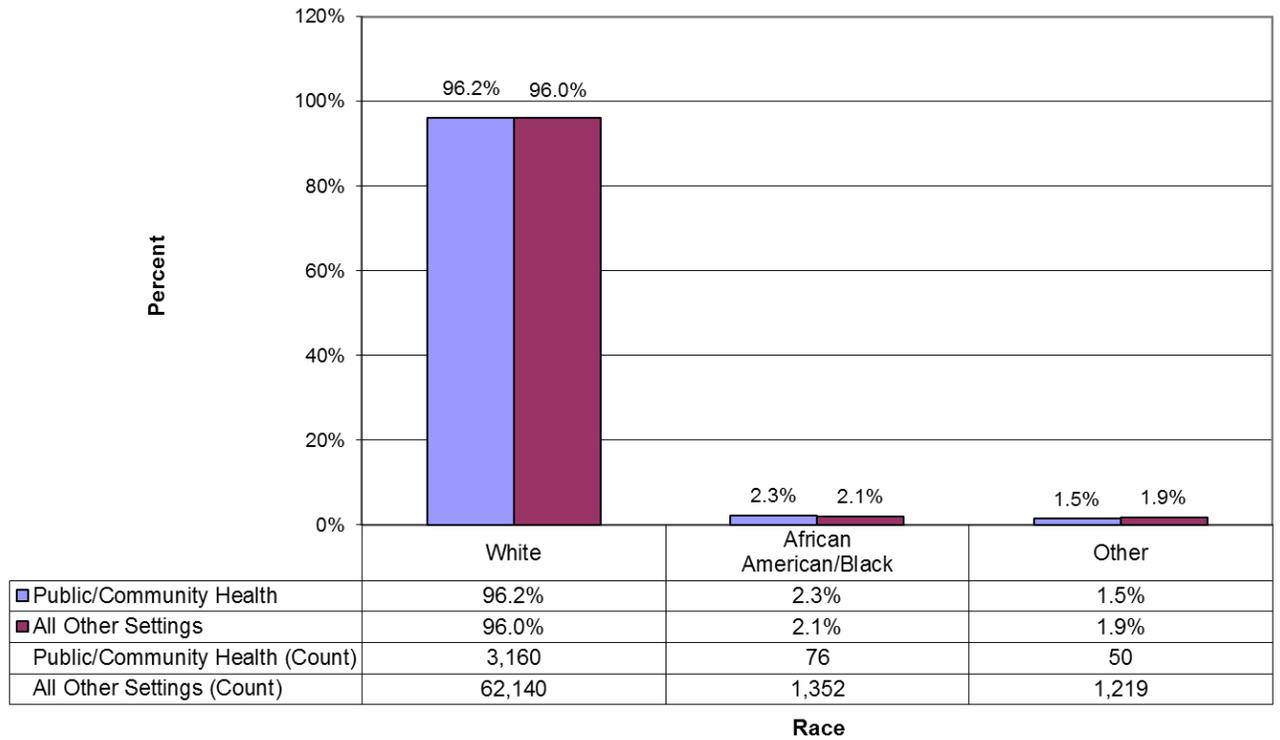
As a whole, the racial and ethnic distribution of the Wisconsin RN workforce is substantially different from that of the state population. While 85.4 percent of the state's population is non-Hispanic White, 94.9 percent of Wisconsin's RN workforce is non-Hispanic White. Hispanics, Blacks, and American Indians/Alaska Natives are underrepresented in the RN workforce. Hispanics constitute 5.2 percent of the state population, but only 1.3 percent of RNs (Figure 8). Similarly, Blacks make up 6.4 percent of the state population, but only 2.1 percent of RNs. Asians and Native Hawaiians/Other Pacific Islanders are also underrepresented among the Wisconsin RN workforce, with 1.5 percent of RNs reporting a racial background of Asian, Native Hawaiian, or other Pacific Islander, compared with 2.3 percent of the state population (not shown).

Figure 8. Distribution of Registered Nurses and the Wisconsin Population by Ethnicity and Race, 2010



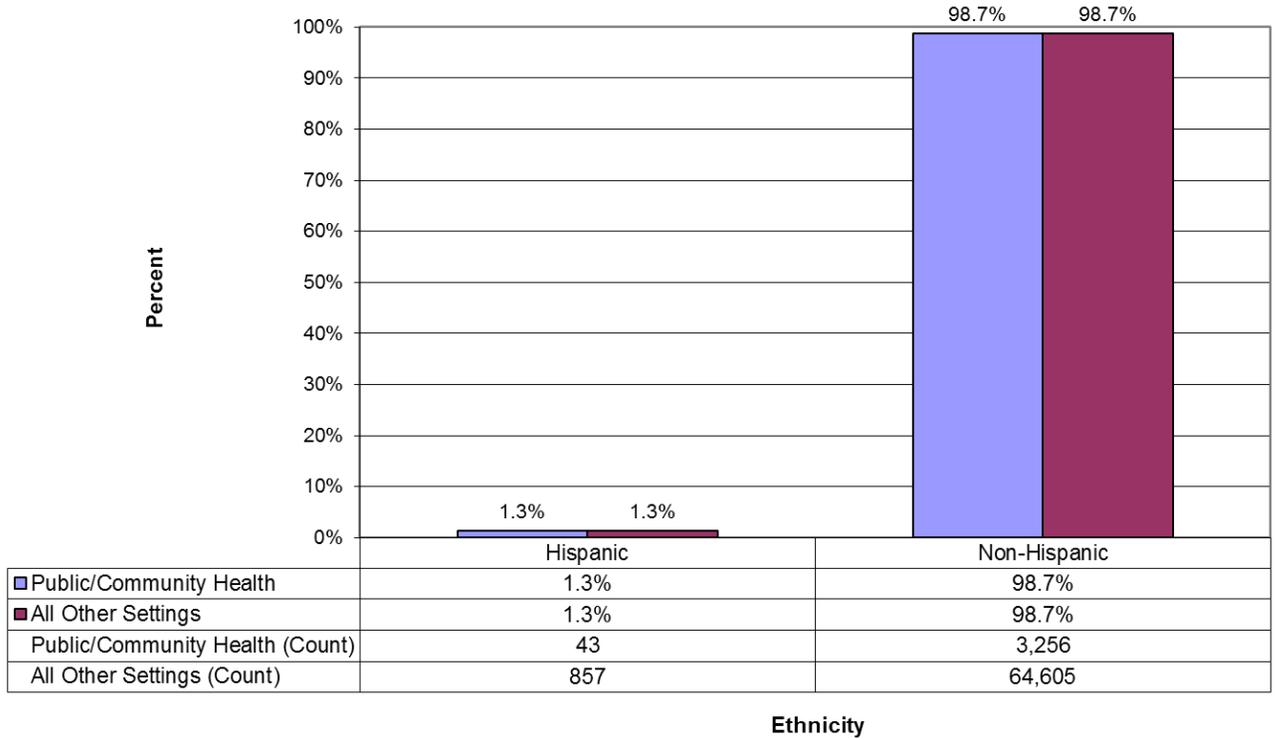
The racial composition of Wisconsin nurses in public and community health settings is similar to the racial composition of nurses in all other Wisconsin settings (Figure 9).

Figure 9. Racial Distribution of Registered Nurses by Work Setting, Wisconsin, 2010



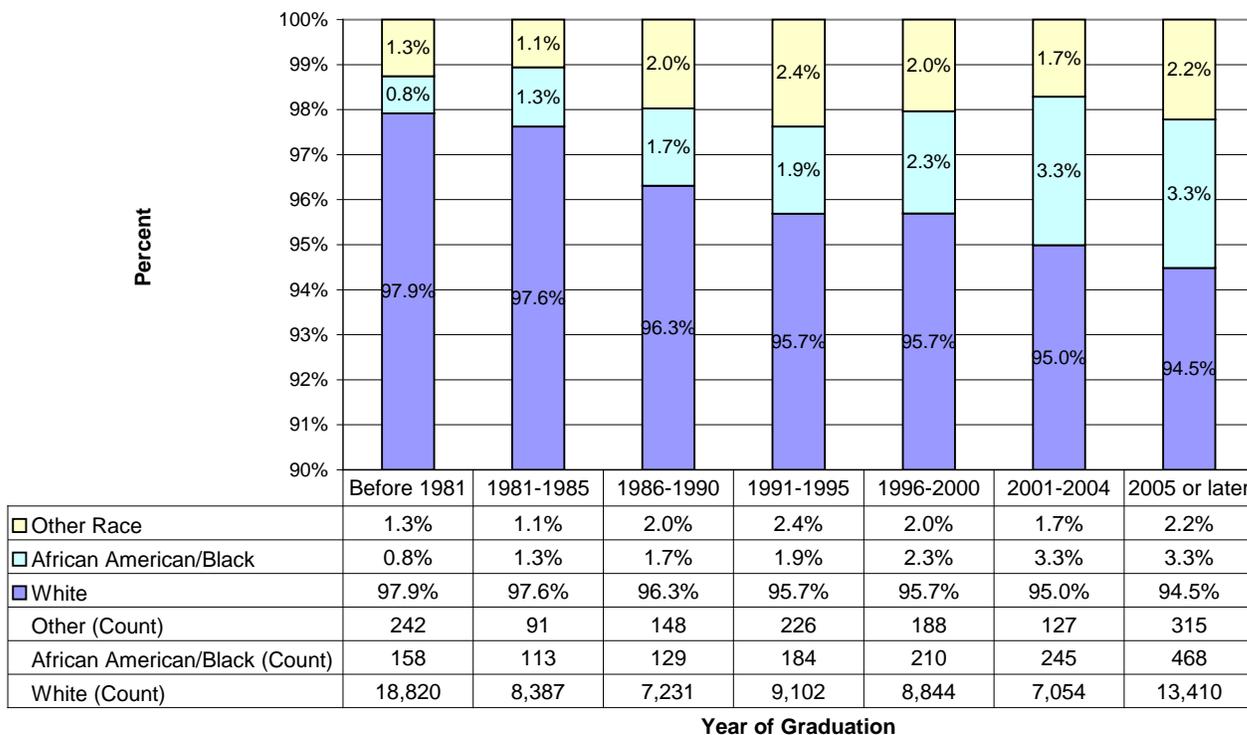
The Hispanic ethnicity composition of Wisconsin nurses in public and community health settings is similar to the Hispanic ethnicity composition of nurses in all other Wisconsin settings (Figure 10).

Figure 10. Ethnic Distribution of Registered Nurses by Work Setting, Wisconsin, 2010



Of Wisconsin RNs, approximately 5 percent reported minority backgrounds (race and ethnicity) compared to nearly 15 percent of the Wisconsin population. People who are African American and people of other races have been increasing as a percentage of new nursing graduates since 1981 (Figure 11).

Figure 11. Racial Distribution of Registered Nurses by Year of Graduation from Initial RN Education, Wisconsin, 2010



Age by Work Setting

2008 National Registered Nurse Workforce

The RN workforce in the United States has been getting older over the past two decades. Between 2004 and 2008, the average age for all RNs rose from 46.8 to 47.0 years and that of employed nurses rose from 45.4 to 45.5 years.

Also between 2004 and 2008, the percentage of RNs under age 40 grew for the first time since 1980. In 1980, 54 percent of RNs were under 40 years old; by 1992 this share had dropped to 44.8 percent. The decline in younger nurses continued through 2004, when only 26.6 percent of the RN population was under 40 years old. In 2008, 29.5 percent of the RN population was under 40 years old.

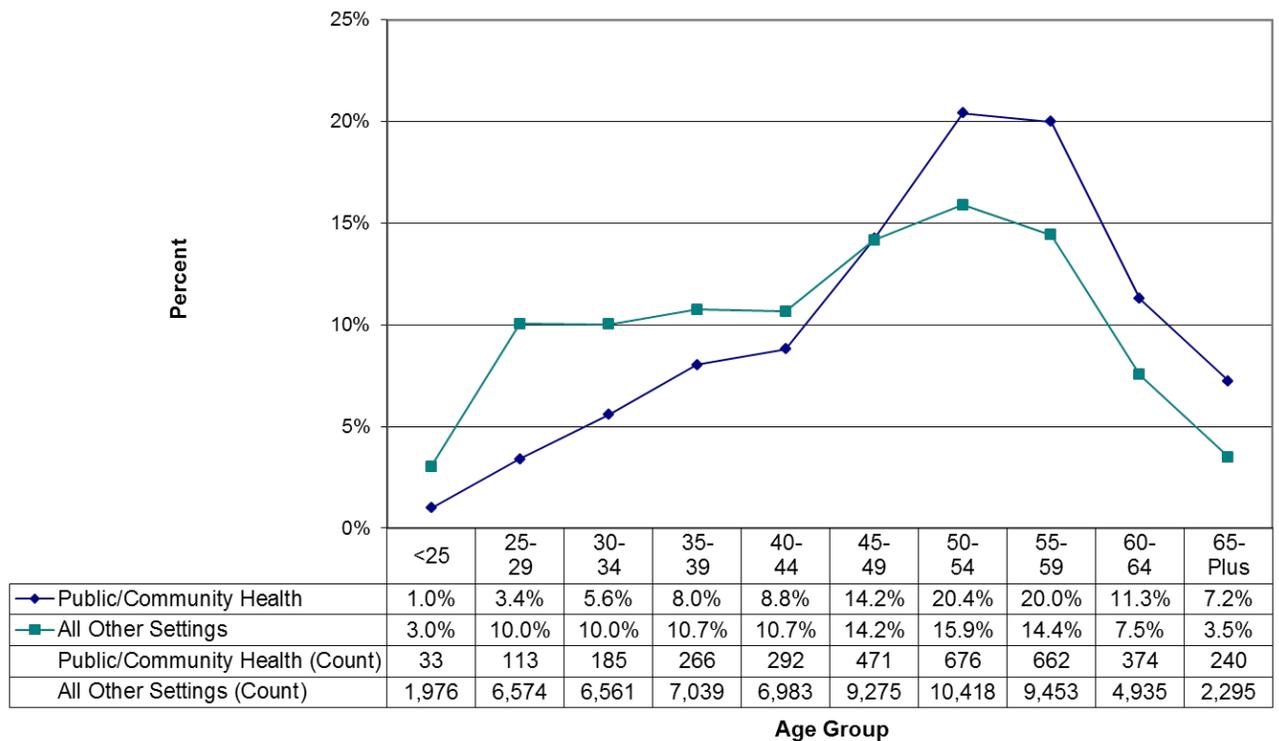
2010 Wisconsin Registered Nurses in Public and Community Health

Registered nurses in public and community health tended to be older than nurses in all other settings, with lower percentages in younger age groups and higher proportions in older age groups (Figure 12). The average age of Wisconsin public and community health RNs was 50 years. Among RNs in these settings who were providing direct patient care, the average age was 49.8 years.

2010 Wisconsin Registered Nurses in All Other Settings

The average age of Wisconsin nurses in all other settings was slightly younger, at 45 years. Among those providing direct patient care, the average age was 44.2 years.

Figure 12. Age Distribution of Registered Nurses by Work Setting, Wisconsin, 2010



Age by Employment Status

2008 National Registered Nurse Workforce

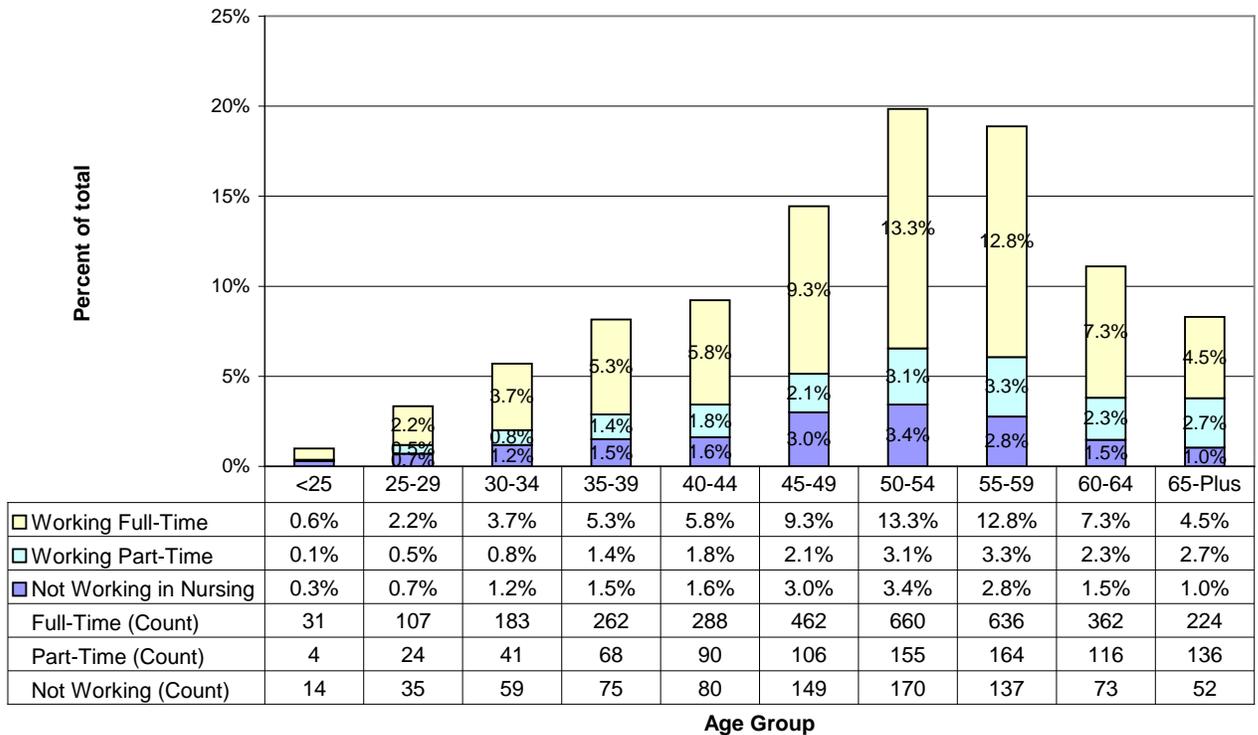
By 2008, 16.2 percent of RNs in the United States were 50 to 54 years old. The aging of the national RN workforce has raised concerns that future retirements could substantially reduce the size of the U.S. nursing workforce at the same time the general population is growing and the elderly population is increasing, raising the demand for health care and nursing services across the nation.

2010 Wisconsin Registered Nurses in Public and Community Health

Wisconsin parallels the national challenges of replacing an aging RN workforce. In Wisconsin, RNs ages 50-54 made up one-fifth (19.8%) of the Wisconsin public and community health nursing workforce, and RNs ages 55-59 made up nearly another fifth (18.9%).

Figure 13 represents 100 percent of the public and community health nurse workforce. Each column represents an age group and each age group is divided by employment status. The percentage of nurses in public and community health (all ages) working full-time was 64.8 percent and the percentage working part-time was 18.1 percent. Approximately 17 percent of these RNs were not working in nursing.

Figure 13. Employment Status by Age Group (Percent of Total), Registered Nurses in Public/Community Health Settings, Wisconsin, 2010



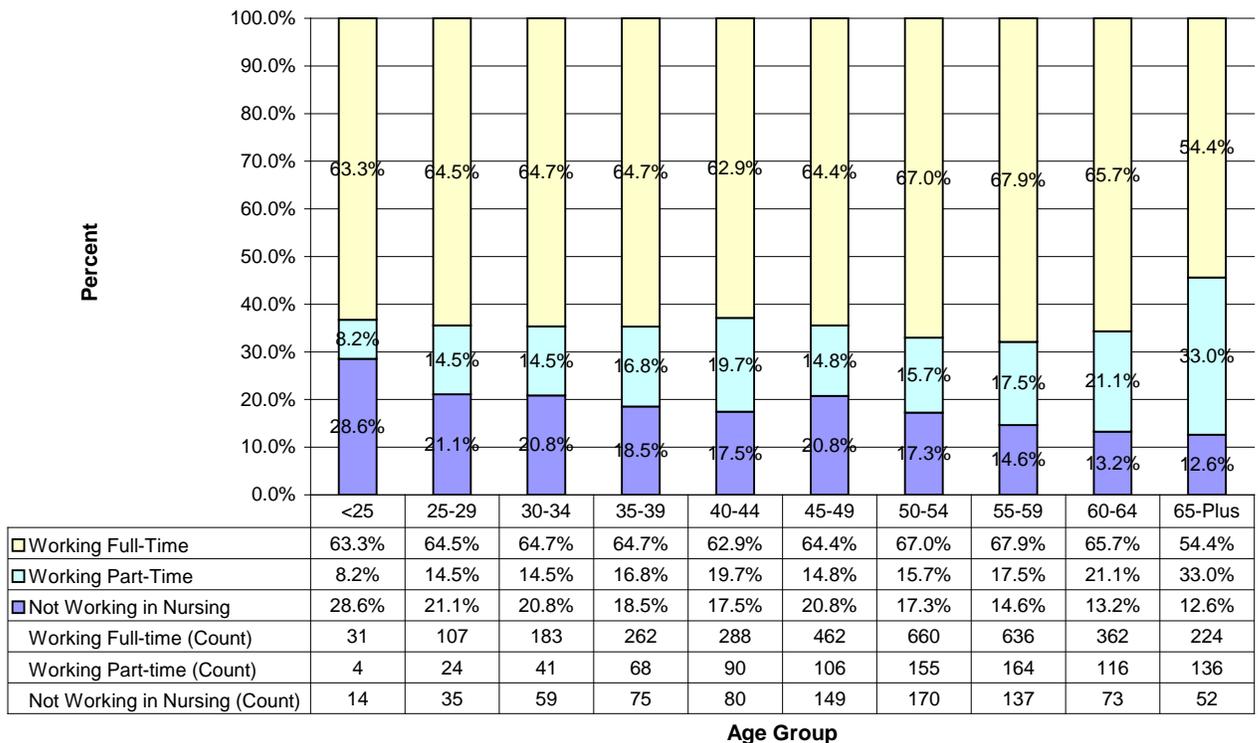
Another way to examine the age by employment status data is shown on the following page.

2010 Wisconsin Registered Nurses in Public and Community Health

Figure 14 displays percentages of public and community health RNs within each age group by employment status. Each bar represents 100 percent of a given age group. Depending on age group, full-time status ranged from approximately 16 percent to 53 percent; and part-time status ranged from approximately 22 percent to 61 percent.

Public and Community Health RNs ages 55-59 and 50-54 demonstrated the highest proportions of full-time employment. Public and community health RNs age 65 and older were the least likely to be working full-time (54.4%) and most likely to be working part-time (33.0%). Over 87 percent of public and community health RNs age 65 and older are working full or part time. More than one-fifth of public and community health RNs ages 25 to 29 were not working in nursing.

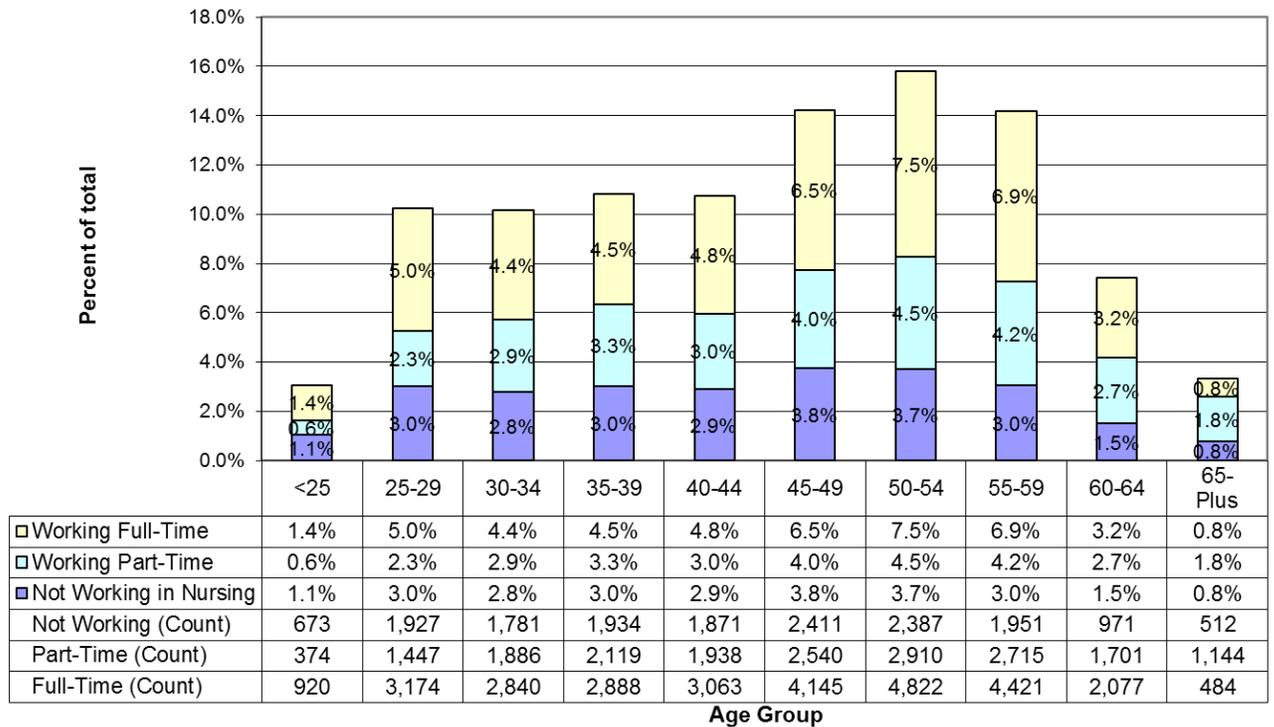
Figure 14. Employment Status by Age Group, Registered Nurses in Public/Community Health Settings, Wisconsin, 2010



2010 Wisconsin Registered Nurses in All Other Settings

Figure 15 represents 100 percent of the nurse workforce in all other settings (settings other than public and community health). Each column represents an age group and each age group is divided by employment status. In all other Wisconsin settings, 45 percent of nurses were working full-time and 29.3 percent were working part-time. Approximately 25.6 percent of RNs in all other settings were not working in nursing.

Figure 15. Employment Status by Age Group (Percent of Total), Registered Nurses in All Other Work Settings, Wisconsin, 2010

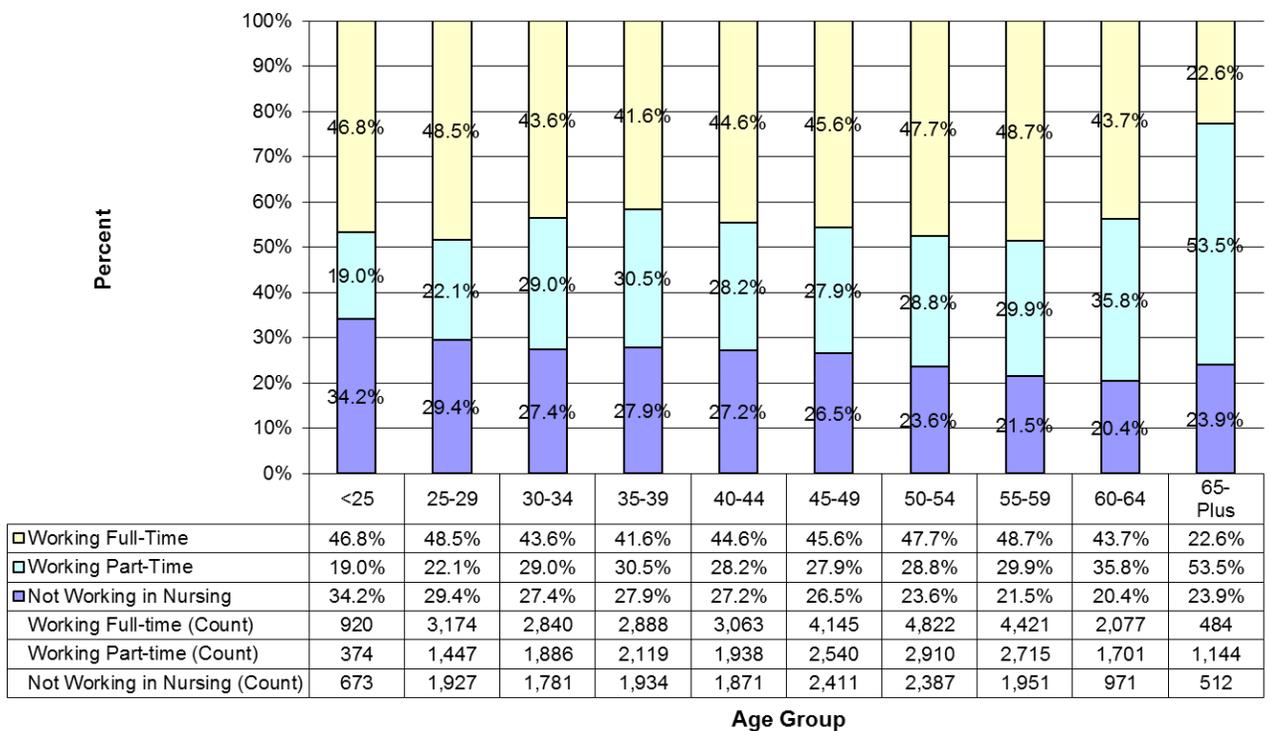


Another way to examine the data is shown on the following page.

2010 Wisconsin Registered Nurses in All Other Settings

Figure 16 displays percentages of Wisconsin RNs in all other settings within each age group by employment status. For nurses in all age groups under 65 years, the proportion reporting full-time status was relatively consistent, ranging from approximately 42 percent to 49 percent. Among nurses age 65 and older, only 22.6 percent were full-time; these nurses were the most likely to be working part-time. More than one-third of the youngest nurses, under age 25, were not working in nursing.

Figure 16. Employment Status by Age Group, Registered Nurses in All Other Work Settings, Wisconsin, 2010



Employment of RNs in Wisconsin

Job Title

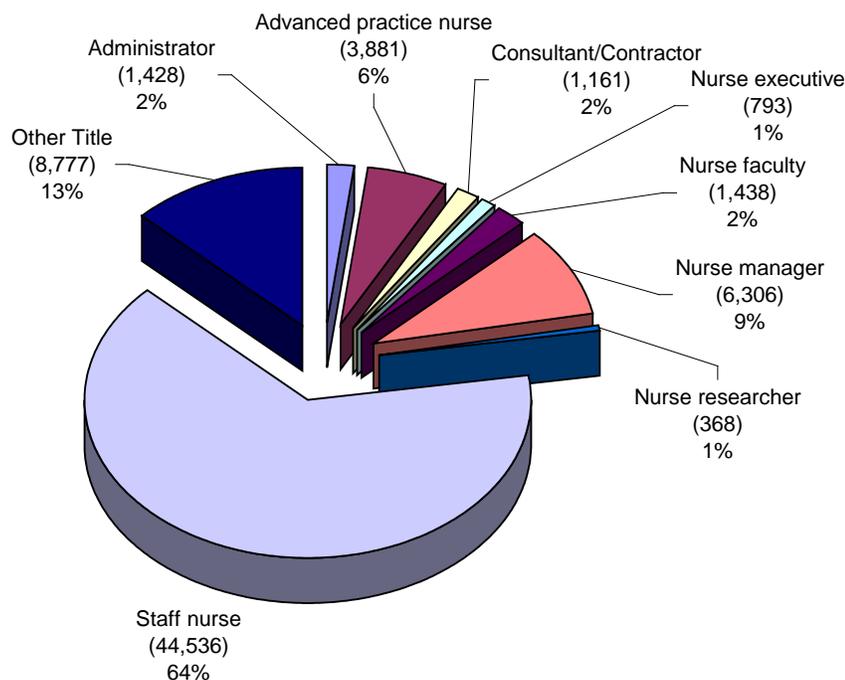
2008 National Registered Nurse Workforce

The most common job title of RNs in the United States was “staff nurse” or an equivalent title. There was a slight increase in the share of RNs reporting this title between 2004 and 2008, from 64.1 percent to 66.3 percent. Other common job titles of RNs in 2008 included management and administration (12.5 %), patient care coordinator (5.4 %), nurse practitioner (3.8 %), and instructor/lecturer (3.7 %).

2010 Wisconsin Registered Nurses

The most common job title of RNs in Wisconsin, regardless of work setting, was staff nurse (64%, Figure 17). Other common titles included nurse manager (9%) and advanced practice nurse (6%).

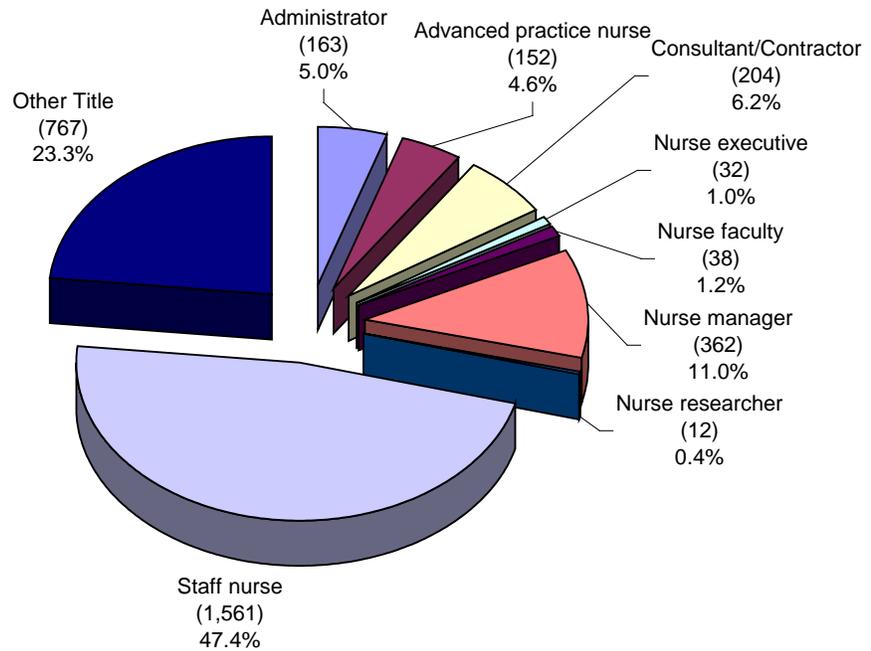
Figure 17. Registered Nurses, Number and Percent of Total by Job Title, Wisconsin, 2010



Wisconsin Registered Nurses in Public and Community Health

The most common job title of RNs in Wisconsin public and community health settings was staff nurse (47.4%, Figure 18). Other common job titles included nurse manager (11%), consultant/contractor (6.2%), and administrator (5%).

Figure 18. Public/Community Health Registered Nurses, Number and Percent by Job Title, Wisconsin, 2010



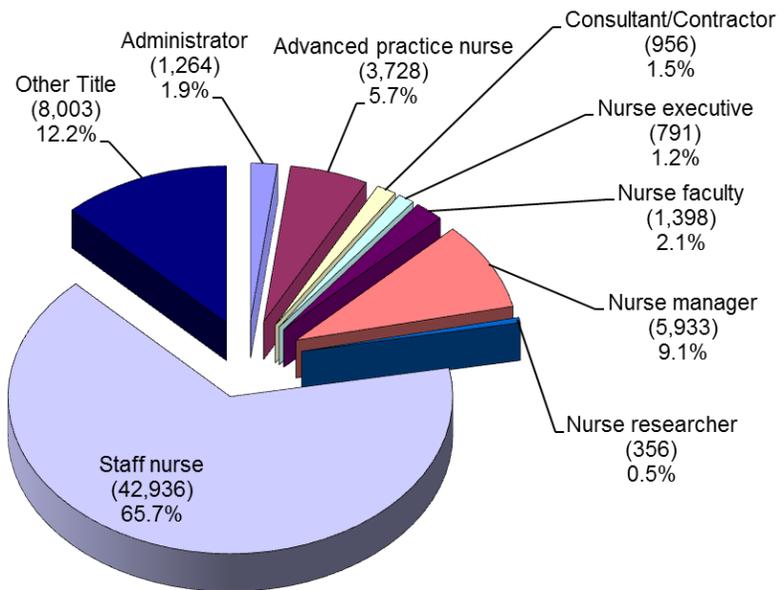
Percentage of Public and Community Health RNs by Job Title:

Staff nurse	47.4
Nurse manager	11.0
Consultant/Contractor	6.2
Administrator	5.0
Advanced practice nurse	4.6
Nurse faculty	1.2
Nurse executive	1.0
Nurse researcher	0.4
<u>Other</u>	<u>23.3</u>
Total	100.0%

2010 Wisconsin Registered Nurses in All Other Settings

Staff nurse (65.7%), was the most common job title among Wisconsin RNs in all other settings (settings other than public and community health) (Figure 19). Nurse manager accounted for 9.1 percent of job titles, followed by advanced practice nurse at 5.7 percent. Nurse faculty was the title for 2.1 percent and administrator for 1.9 percent. Consultants/Contractors constituted 1.5 percent and nurse researchers 0.5 percent. Other job titles made up the remaining 12.2 percent.

Figure 19. Registered Nurses in All Other Settings, Number and Percent by Job Title, Wisconsin, 2010



Earnings

2008 National Registered Nurse Workforce

The average annual earnings for RNs employed full-time in 2008 were \$66,973, an increase of 15.9 percent from the 2004 average of \$57,785. RNs with graduate degrees earned an average of at least \$20,000 more (not including benefits) than RNs with other levels of education.

2010 Wisconsin Registered Nurses in Public and Community Health

In 2010, median annual earnings from their primary jobs for RNs employed full-time in Wisconsin public and community health settings were \$57,000. (The median is the point at which half earned more, and half earned less.)

2010 Wisconsin Registered Nurses in All Other Settings

In 2010, median annual earnings from their primary jobs for RNs employed full-time in all other Wisconsin settings (other than public and community health) were \$62,000.

Information about benefits was not available for analysis.

Hours

2008 National Registered Nurse Workforce

More than half of RNs in the United States worked at least 40 hours per week in their principal nursing position, and another 24.2 percent worked 32 to 39 hours per week. A total of 19.1 percent of RNs reported that they worked on-call or could have been called to work (were “on standby”) during a typical work week in their principal nursing positions. Among RNs employed in nursing, 27.5 percent reported they worked overtime an average of 7.5 hours per week and received pay for such work.

2010 Wisconsin Registered Nurses in Public and Community Health

In Wisconsin public and community health settings, full-time employed RNs worked an average of 44 hours per week. Part-time employed RNs worked an average of 20.9 hours per week (see text table below).

2010 Wisconsin Registered Nurses in All Other Settings

In all other Wisconsin settings, full-time employed RNs worked an average of 44.2 hours per week. Part-time employed RNs worked an average of 25.1 hours per week.

Registered Nurse Mean Hours per Week* by Work Setting		
Work Setting:	Full-time nurses	Part-time nurses
Academic education	46.9	21.0
Ambulatory care	43.7	25.6
Home health	45.8	23.7
Hospital	43.6	26.1
Nursing home/extended care	45.4	24.4
All other settings	45.2	22.1
Other settings (sub-total)	44.2	25.1
Public and Community Health	44.0	20.9
Total, All Settings	44.2	25.1

* “Mean hours per week” is the average number of hours, calculated by adding the total number of reported hours and dividing it by the number of respondents.

Intentions to Stay in Direct Patient Care Nursing

2008 National Registered Nurse Workforce

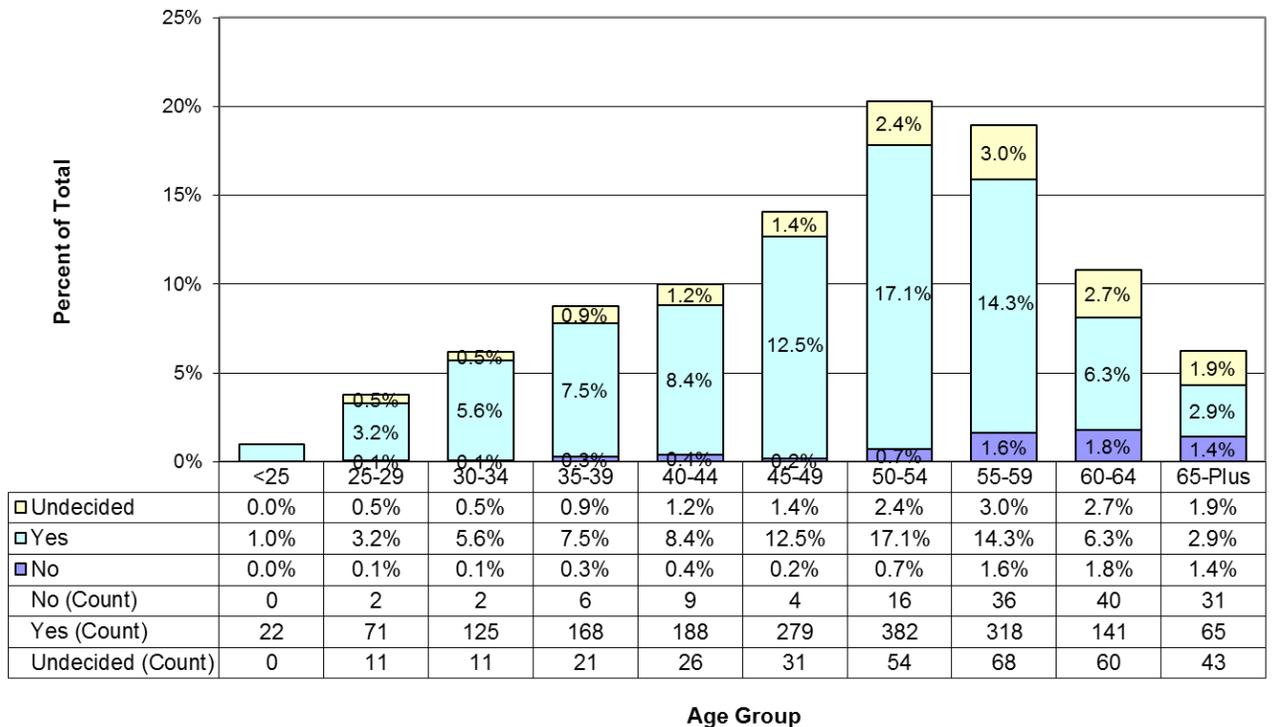
The percentage of employed RNs in the United States under 55 years old who intended to leave nursing altogether within three years was quite small, at 3 percent or less. Among RNs age 55 and older, 12.5 percent intended to leave the nursing profession within three years and another 8.9 percent intended to leave their current nursing jobs and were unsure if they would remain in nursing afterward.

2010 Registered Nurses in Wisconsin Public and Community Health

The Wisconsin RN survey asked about intentions to leave direct care nursing within two years (rather than three years, as did the 2008 U.S. survey). Figure 20 shows the intention to leave direct patient care within two years generally increases with age.

Of RNs working in public and community health settings in Wisconsin, 74.8 percent provide direct patient care. Of those providing direct patient care, 1.6 percent were age 55-59 and intended to leave direct care nursing within two years, while another 1.8 percent were age 60-64 and intended to leave direct care nursing within two years. In total, 1.7 percent of nurses under age 55 intended to leave direct care nursing within two years, with 6.9 percent undecided. Among RNs 55 and older providing direct patient care, 4.8 percent intended to leave direct care nursing within two years, with 7.7 percent undecided.

Figure 20. Intentions to Stay in Direct Care Nursing at Least Two Years, Number and Percent of Public/Community Health Registered Nurses, Wisconsin, 2010



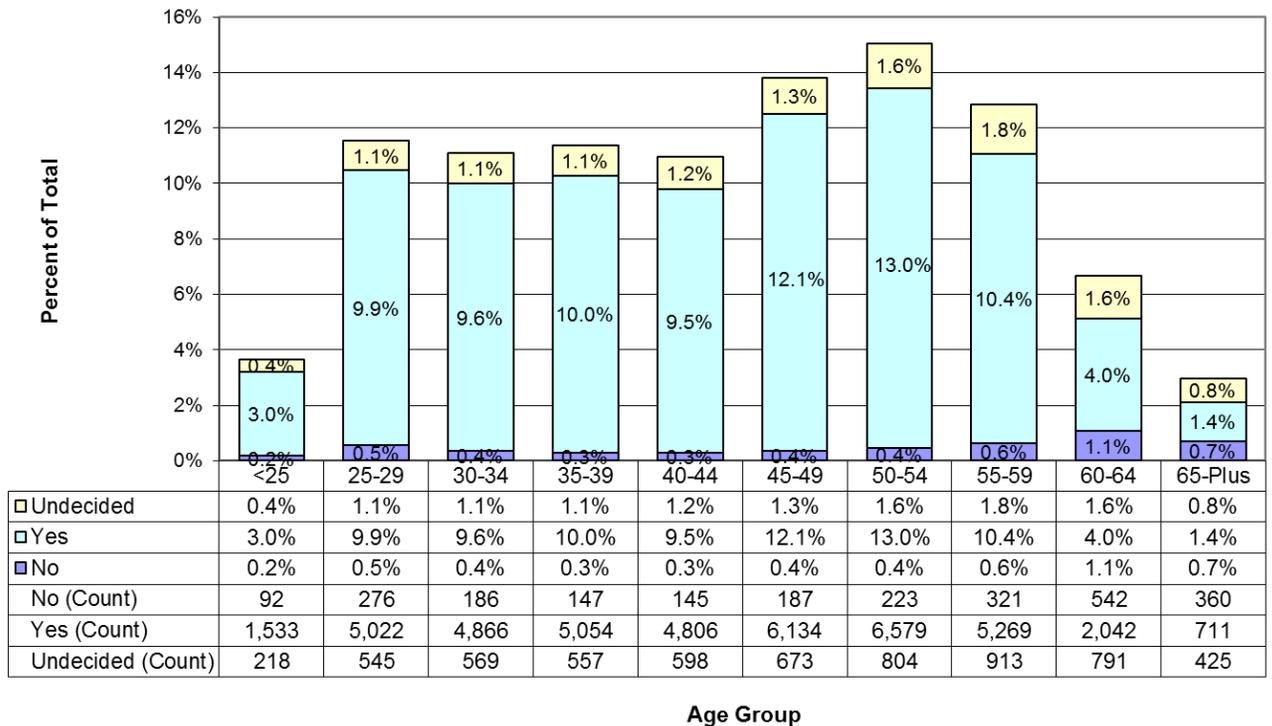
Note: 74.8 percent of Community Health RNs provide direct care nursing.

2010 Wisconsin Registered Nurses in All Other Settings

Figure 21 shows that in all other work settings the intention to leave direct care nursing within two years was related to age. Compared to nurses in public and community health work settings, however, intention to leave was more similar across age groups before rising considerably among those ages 55-59 and 60-64.

Of RNs in all other settings, 83.7 percent provide direct patient care. Of those providing direct patient care, 2.5 percent of nurses under age 55 intended to leave direct care nursing within two years, with 7.8 percent undecided. Among nurses 55 and older providing direct patient care, 2.4 percent intended to leave direct care nursing within two years, with 4.2 percent undecided.

Figure 21. Intentions to Stay in Direct Care Nursing at Least Two Years, Number and Percent of Registered Nurses in All Other Work Settings, Wisconsin, 2010



Note: 83.7 percent of RNs in all other work settings provide direct care nursing.

Advanced Practice Registered Nurses

2008 National Registered Nurse Workforce

In 2008, an estimated 250,527 RNs (8.2%) in the United States reported that they were prepared as an advanced practice nurse in one or more advanced specialties or fields. This represented an increase of 4.2 percent from 2004, when there were 240,460 nurses prepared for advanced practice (HRSA, 2010).

- Nurse practitioners constituted 63.2 percent of nurses in advanced specialties in 2008, accounting for 158,348 nurses. In 2004, 141,209 nurses were prepared as nurse practitioners; the number of nurse practitioners thus grew 12.1 percent over four years.
- Of nurse practitioners in 2008, 19,134 were prepared as both a nurse practitioner and either a clinical nurse specialist or nurse midwife.
- There were an estimated 18,492 nurses prepared as nurse midwives in 2008, representing a 35.1 percent increase from the 13,684 nurse midwives estimated in 2004.
- There was a modest 7.1 percent increase in the number of nurse anesthetists between 2004 and 2008, from 32,523 to 34,821.
- There was a decline in the number of nurses prepared as clinical nurse specialists between the two surveys. In 2008, there were an estimated 59,242 clinical nurse specialists, compared with 72,521 in 2004 – a decrease of 22.4 percent.
- Nurses with advanced practice preparation reported a variety of job titles in their principal nursing positions.

2010 Wisconsin Registered Nurses in Public and Community Health

In Wisconsin public and community health settings, 7.0 percent of nurses reported they were trained as an advanced practice nurse. Of those, 54 percent said their job title was Advanced Practice Nurse.

Nurse practitioners made up 41.1 percent of public and community health RNs trained as an advanced practice nurse. There were a reported eight public and community health RNs prepared as nurse midwives in Wisconsin, 3.5 percent of all advanced practice nurses in public and community health settings. Less than 1 percent of public and community health RNs were nurse anesthetists, or 0.9 percent of all advanced practice nurses in these settings. RNs who were clinical nurse specialists totaled 3.9 percent of all advanced practice nurses in public and community health settings.

2010 Wisconsin Registered Nurses in All Other Settings

In all other Wisconsin settings, 7.0 percent of RNs reported they were trained as an advanced practice nurse. Of those, 69 percent said their job title was Advanced Practice Nurse. Nurse practitioners constituted 42.4 percent of nurses trained as an advanced practice nurse. There were a reported 124 nurses prepared as nurse midwives in all other Wisconsin settings, making up 2.7 percent of all advanced practice nurses. There were 563 nurse anesthetists in all other Wisconsin settings, which was 12.3 percent of all advanced practice nurses in these settings. The number of clinical nurse specialists in all other Wisconsin settings totaled 284, or 6.2 percent of all advanced practice nurses in these settings.

Wisconsin RNs: Emergency Preparedness Training and Response

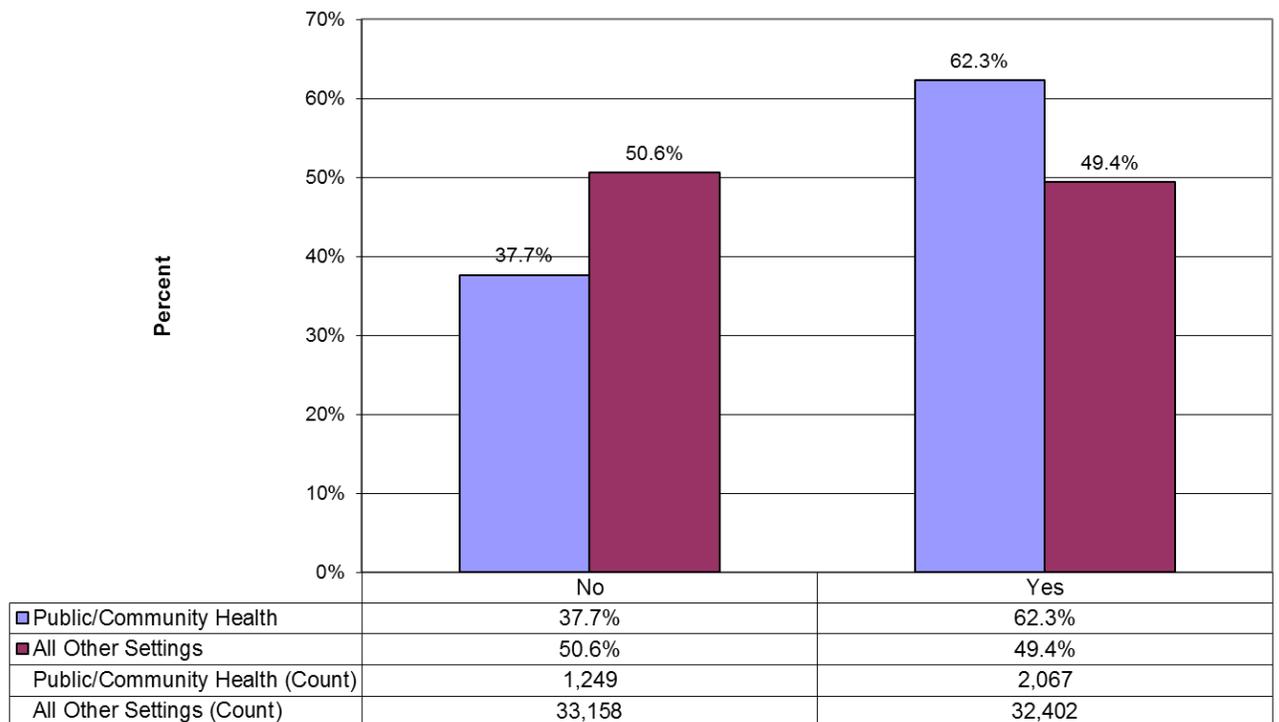
Public and community health RNs care for school-aged children and youth, assure safe and healthy workplaces and community environments, and prepare for and respond to emergencies such as bioterrorism, chemical emergencies, radiation emergencies, mass casualties, natural disasters, severe weather, and disease outbreaks. RNs are the largest single occupational discipline in the local health department workforce.

Nurses will continue to be key players in local and national level emergency response as we move through the 21st century. As members of the community, the basic emergency preparedness of nurses can be an example to other members of the community. All nurses must be prepared to report to work during a disaster (ANA, 2006).

2010 Wisconsin Registered Nurses

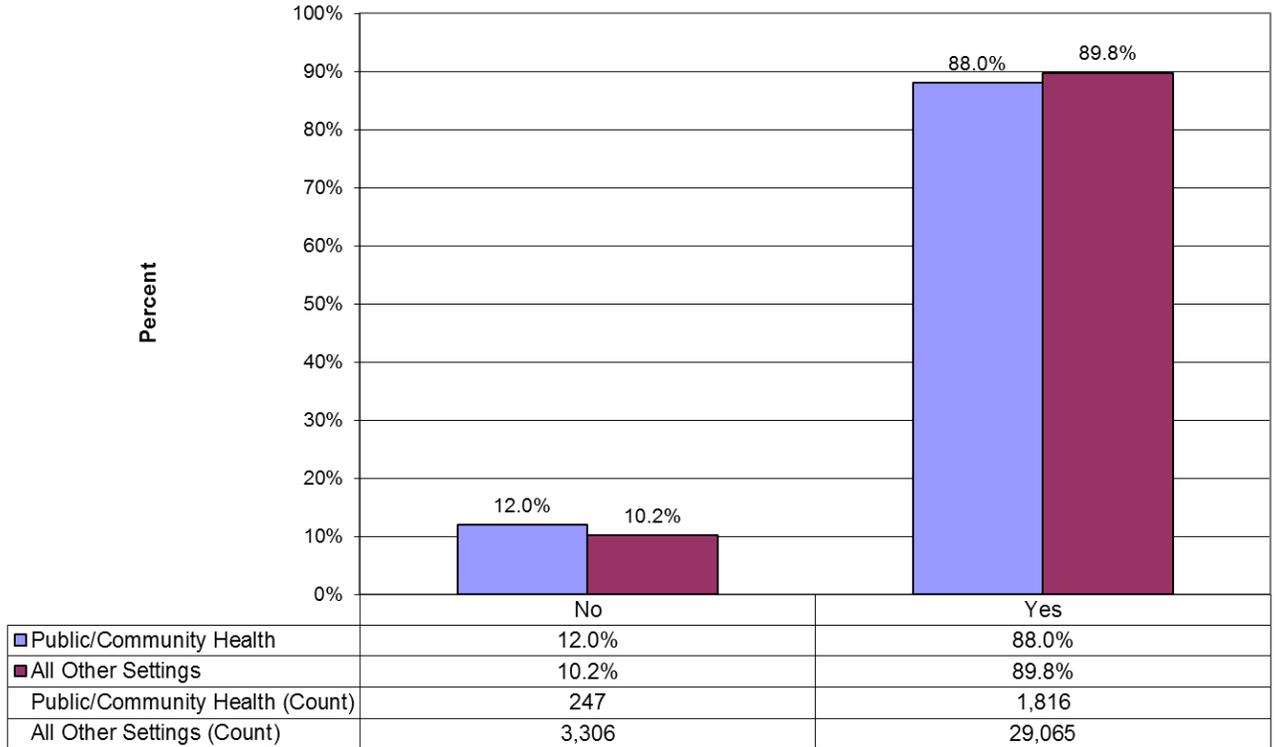
In 2010, 50 percent of all Wisconsin RNs had received training in emergency preparedness. Of public and community health RNs, 62 percent had received training in emergency preparedness, in comparison to 49 percent of RNs in all other work settings (Figure 22).

Figure 22. Registered Nurses by Whether They Received Training in Emergency Preparedness, by Work Setting, Wisconsin, 2010



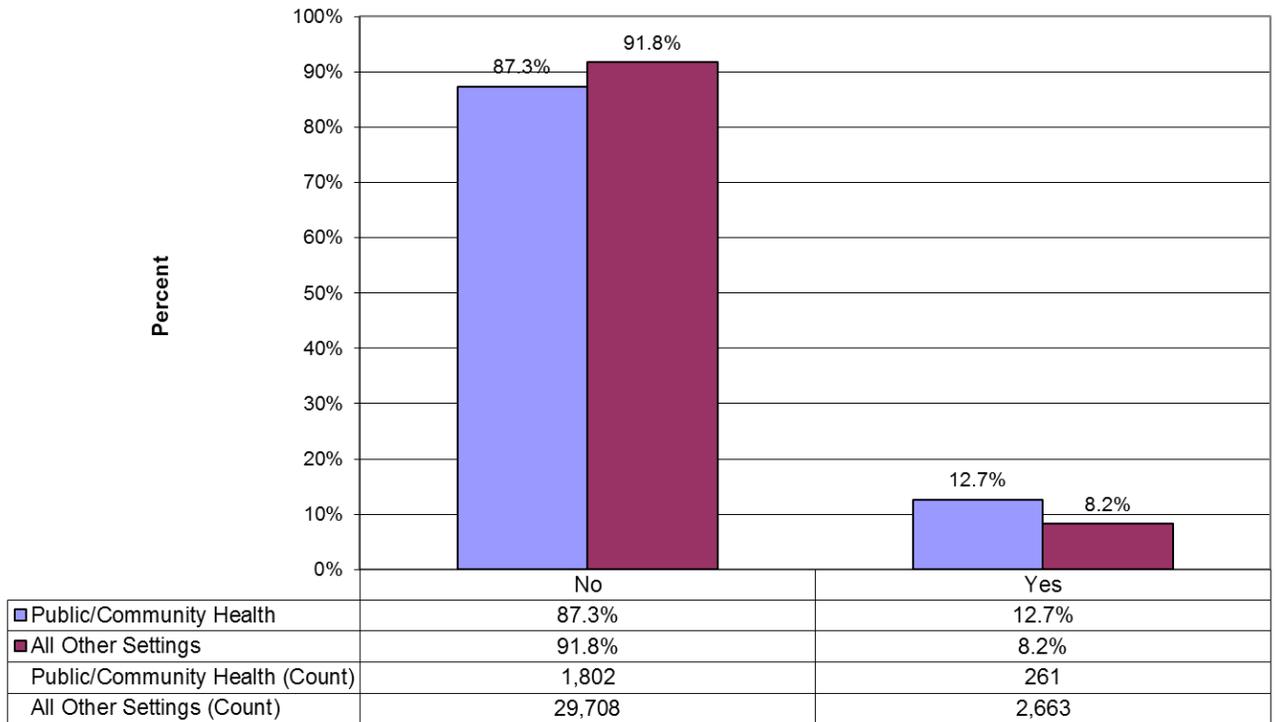
Of those Wisconsin RNs trained in emergency response, most (nearly 90 percent) received the training through employers (Figure 23). This proportion varied little by work setting.

Figure 23. Registered Nurses Who Received Emergency Preparedness Training Through Employer, by Work Setting, Wisconsin, 2010



A small percentage of Wisconsin RNs trained in emergency response (8%) received this training through voluntary organizations. Among RNs in public and community health settings, 12.7 percent of those trained in emergency response received training from a voluntary organization such as the Red Cross (Figure 24).

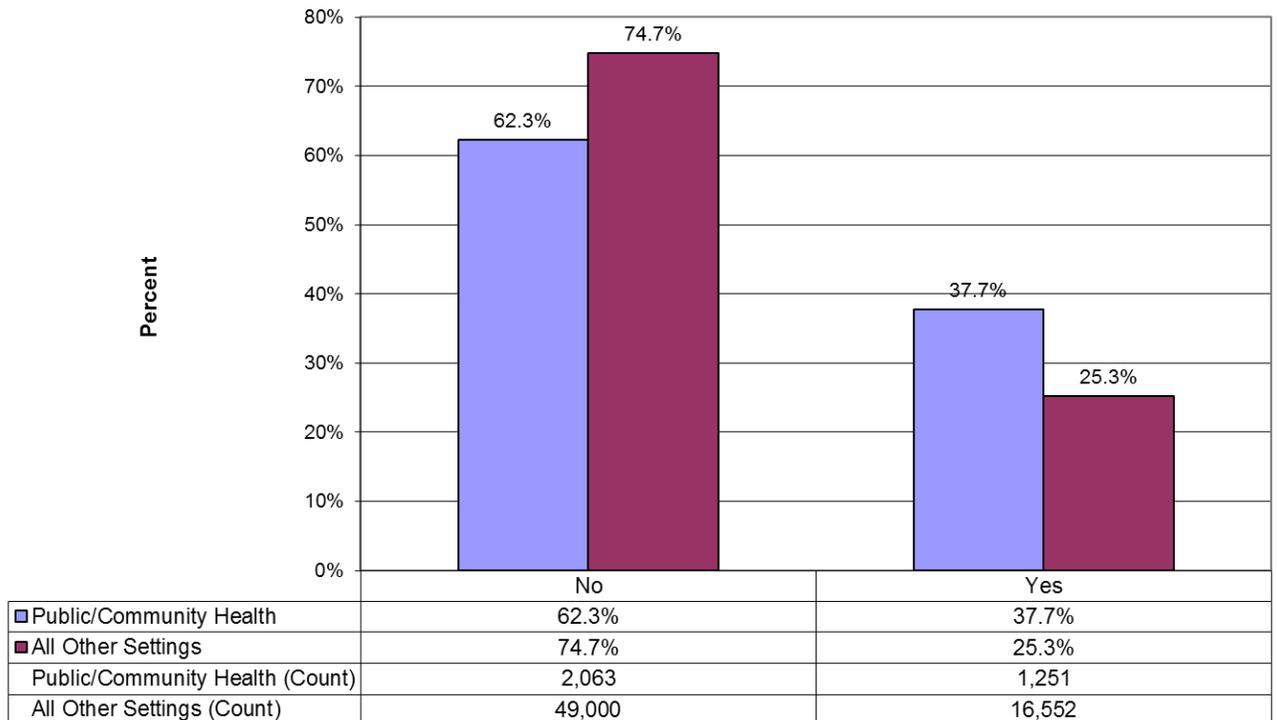
Figure 24. Registered Nurses Who Received Emergency Response Training Through Voluntary Organization, by Work Setting, Wisconsin, 2010



2010 Wisconsin Registered Nurses

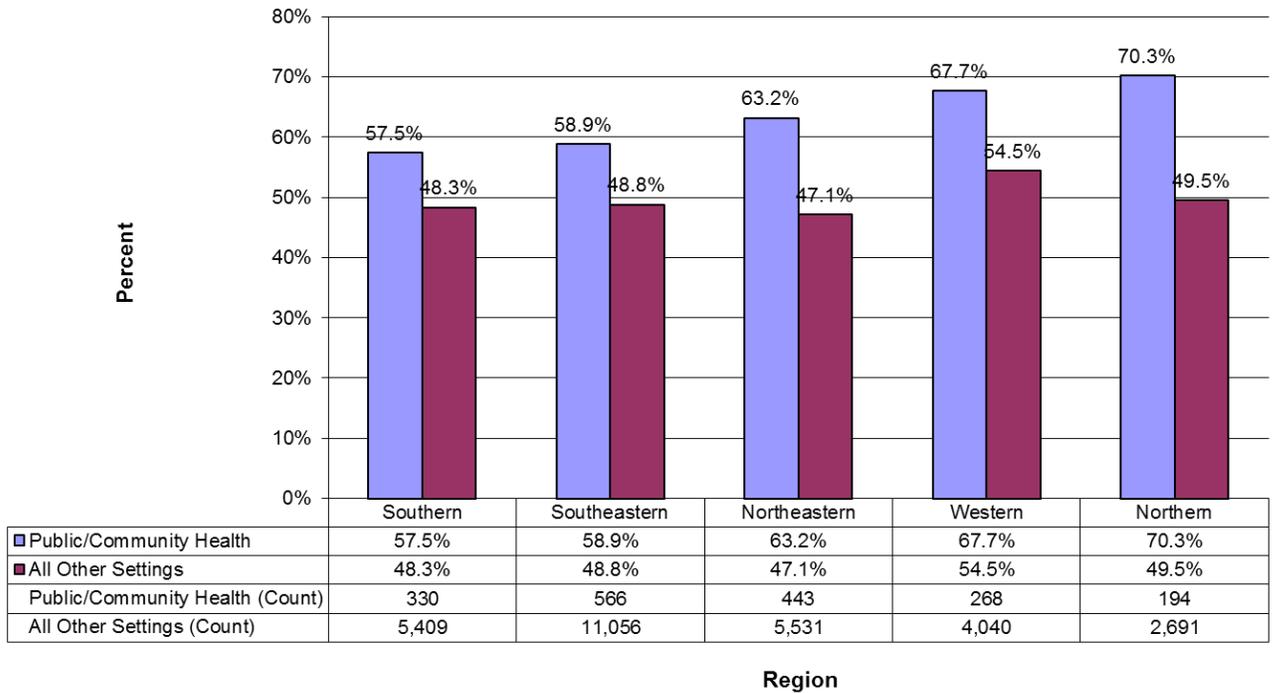
Statewide, 26 percent of Wisconsin RNs in 2010 reported participating in an emergency preparedness exercise within the previous two years (not shown). Of Wisconsin public and community health RNs, 38 percent had participated in an emergency preparedness exercise within the previous two years, compared to 25 percent of RNs in all other Wisconsin settings (Figure 25).

Figure 25. Registered Nurses Who Participated In An Emergency Preparedness Exercise In Past Two Years, by Work Setting, Wisconsin, 2010



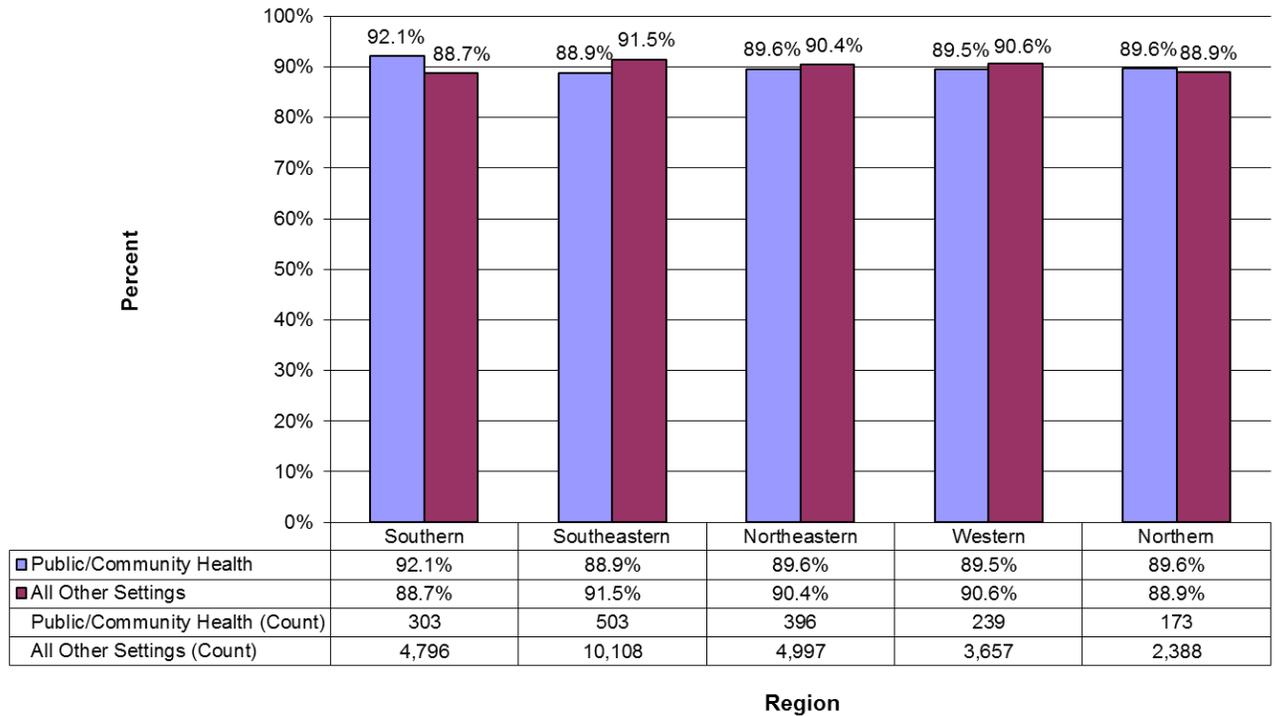
The percentage of Wisconsin RNs trained in emergency preparedness varied by work setting and by Wisconsin DHS region (Figure 26). Among public and community health nurses, the rate varied from 57.5 percent in the Southern Region to 70.3 percent in the Northern Region. For RNs in all other settings, the rate ranged from 47.1 percent in the Northeastern Region to 54.5 percent in the Western Region.

Figure 26. Registered Nurses Trained in Emergency Preparedness, by Work Setting and DHS Region, Wisconsin, 2010



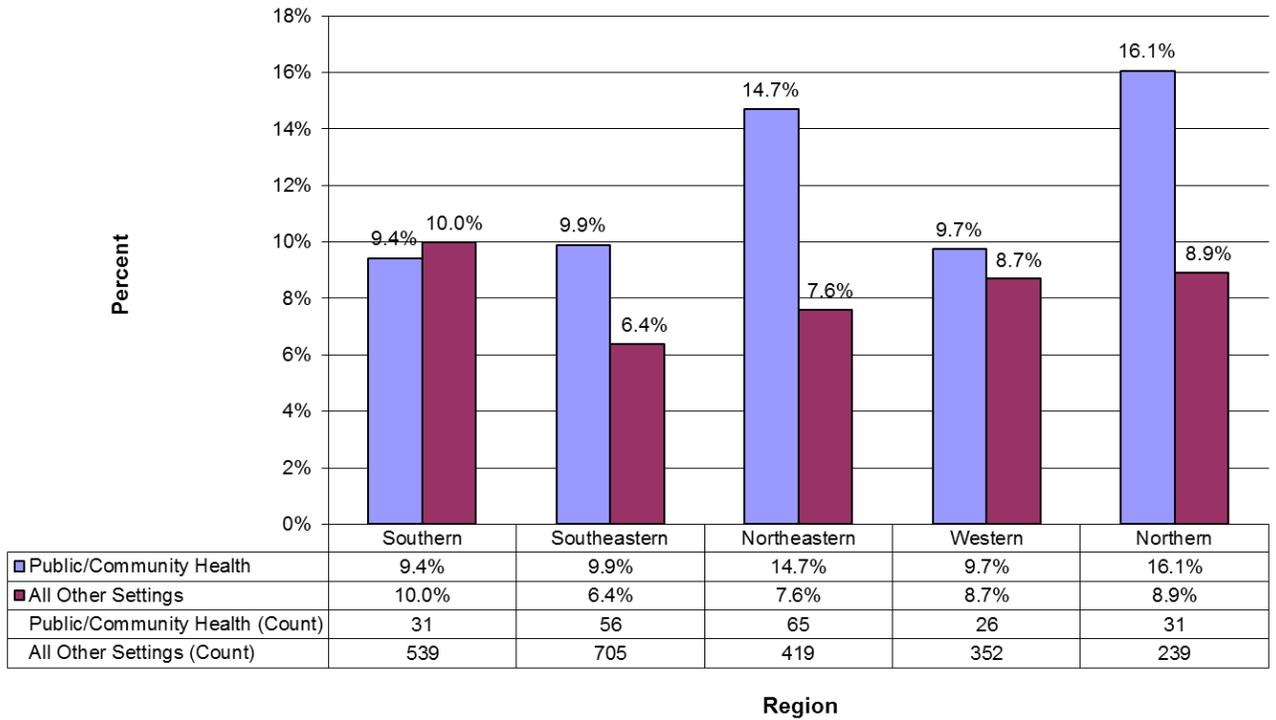
Most Wisconsin RNs who were trained in emergency preparedness received training through their employer. Among public and community health RNs, 92.1 percent in the Southern Region were trained through their employer (Figure 27). Among RNs in all other settings, 91.5 percent in the Southeastern Region received the training through their employer.

Figure 27. Emergency-Preparedness-Trained Registered Nurses Who Received Training Through Employer, by Work Setting and DHS Region, Wisconsin, 2010



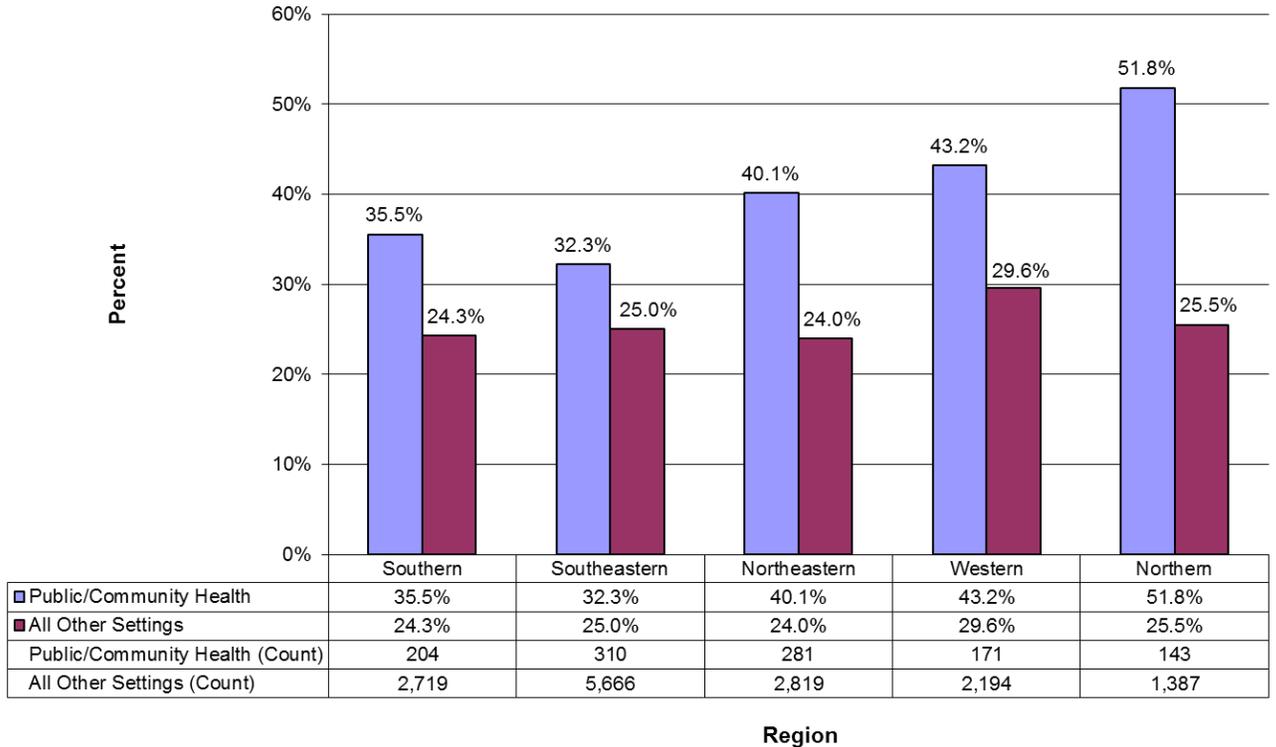
The percentage of emergency-preparedness-trained RNs who received their training from voluntary organizations ranged from 16.1 percent of public and community health nurses in the Northern Region to 6.4 percent of RNs working in all other settings in the Southeastern Region (Figure 28).

Figure 28. Emergency-Preparedness-Trained Registered Nurses Who Received Training Through Voluntary Organization, by Work Setting and DHS Region, Wisconsin, 2010



In the Northern Region, 51.8 percent of public and community health RNs in 2010 had participated in an emergency preparedness exercise within the past two years, compared with 25.5 percent of RNs in all other settings in that region (Figure 29).

Figure 29. Registered Nurses Who Participated in Emergency Preparedness Exercise in Past Two Years, by Work Setting and DHS Region, Wisconsin, 2010



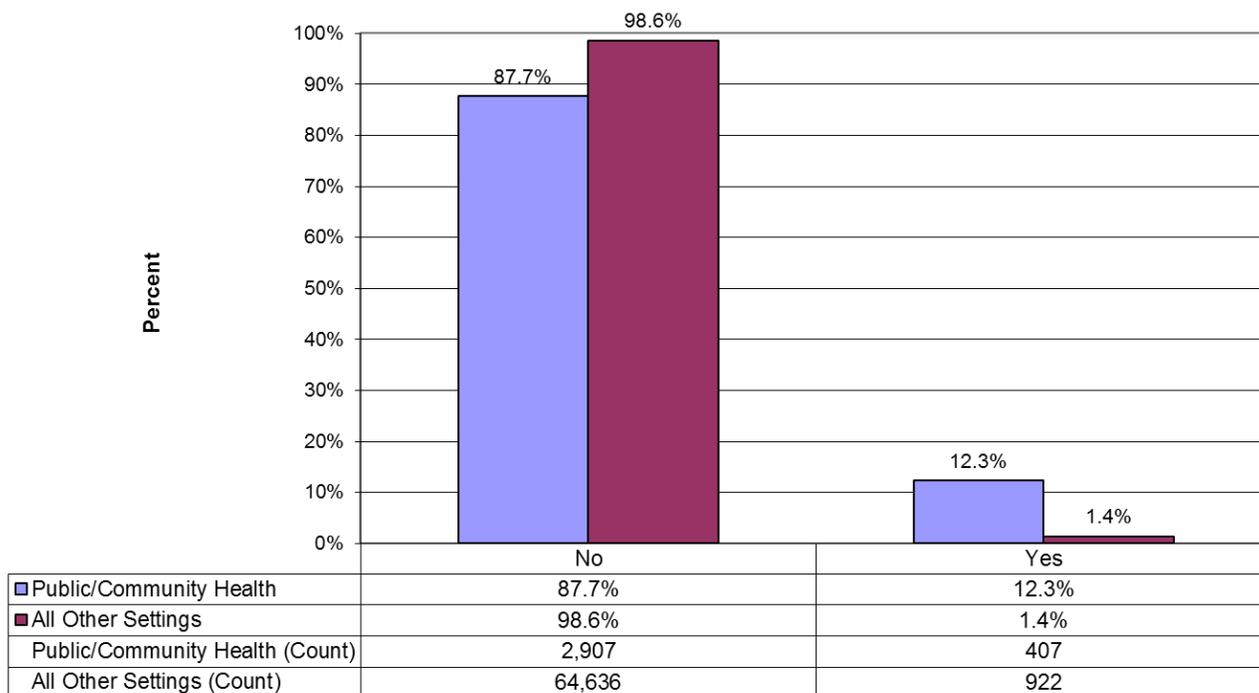
Wisconsin Emergency Assistance Volunteer Registry

The Wisconsin Emergency Assistance Volunteer Registry (WEAVR) is an online resource that collects and stores contact information on volunteers interested in filling critical response and recovery roles following a major public health emergency. Based on the information collected from each volunteer, public health officials can use WEAVR to identify people willing to fill the specific volunteer roles needed in a particular emergency. If an emergency occurs in which volunteers are needed, public health officials will use the WEAVR registry to generate a list of volunteers who will be contacted based on the information the volunteers provided.

2010 Wisconsin Registered Nurses

Statewide, 1.9 percent of Wisconsin RNs were in WEAVR. Of public and community health RNs, 12.3 percent were in WEAVR, compared to 1.4 percent of nurses in all other settings (Figure 30).

Figure 30. Registered Nurses Who Report Being a Member of Wisconsin Emergency Assistance Volunteer Registry (WEAVR), by Work Setting, Wisconsin, 2010



Medical Reserve Corps

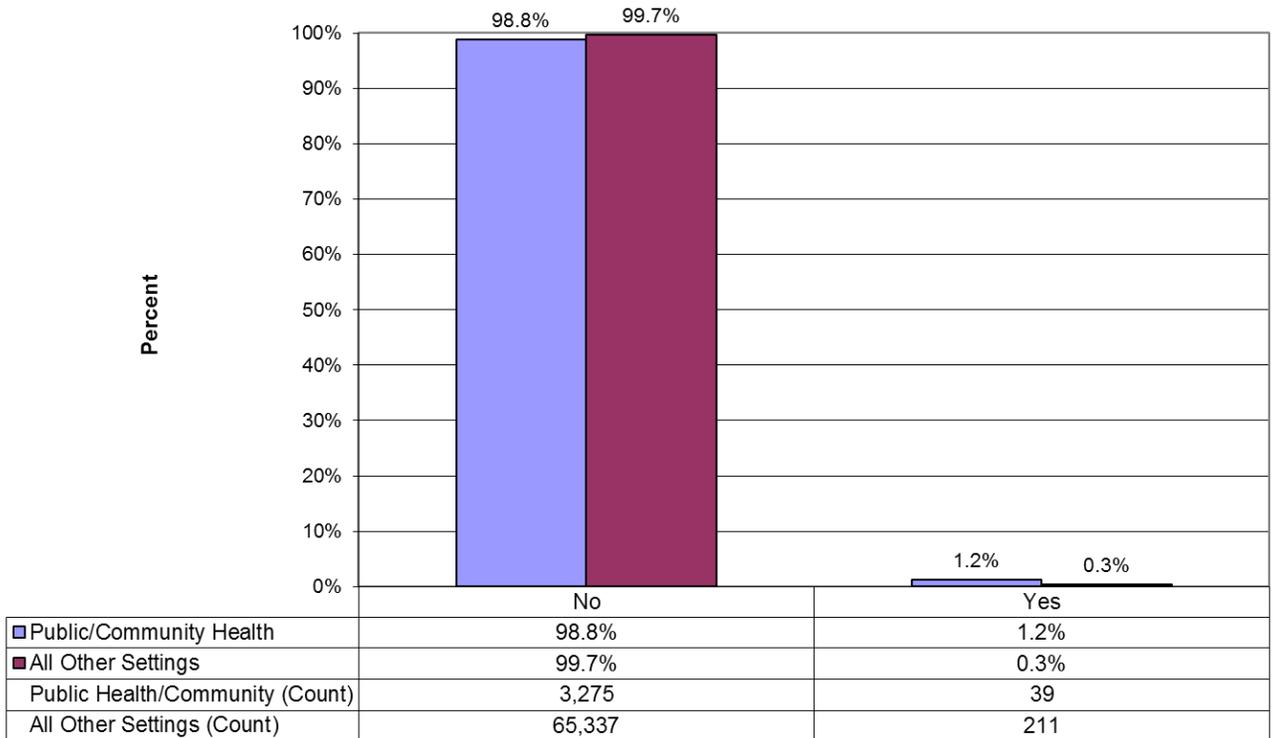
The Medical Reserve Corps (MRC), sponsored by the Office of the U.S. Surgeon General, is dedicated to establishing teams of local volunteer medical and public health professionals to contribute their skills and expertise throughout the year as well as during times of community need (local response during emergencies and non-emergencies).

The mission of the MRC is to improve the health and safety of communities across the country by organizing and using public health, medical and other volunteers. There are seven MRC units in Wisconsin: Dane County MRC (in Madison); Eau Claire County MRC; La Crosse County MRC; Lake Geneva MRC; Southeast Wisconsin MRC (in Waukesha); Wisconsin Animal Reserve Corps; and the Wisconsin Disaster Medical Response Team.

2010 Wisconsin Registered Nurses

Statewide, 0.4 percent of Wisconsin RNs were members of an MRC unit. Of public and community health RNs, 1.2 percent were members of an MRC unit, compared to 0.3 percent of nurses in all other Wisconsin settings (Figure 31).

Figure 31. Registered Nurses in a Medical Reserve Corps (MRC) Unit, by Work Setting, Wisconsin, 2010



Summary of Survey Methods and Analysis

In 2010, as part of obtaining or renewing a registered nurse license in Wisconsin, all registered nurses (RNs) were mandated to respond to a workforce survey in accordance with Chapter 106.30, Wisconsin Statutes. The number of respondents was 77,553. Findings from this statewide survey are available at:

http://worknet.wisconsin.gov/worknet/worknetinfo.aspx?htm=nurse_summary

The Wisconsin Department of Health Services, having received a copy of the survey data in 2011, conducted further analysis on a subset of the data for the public and community health workforce to assist with public health workforce development and emergency preparedness and response planning. The data for public and community health RNs was then compared with data from Wisconsin RNs in all other settings. National RN survey data was also examined as context.

National nursing workforce data came from the [National Sample Survey of Registered Nurses](#), the largest survey of RNs in the United States. It was first conducted in 1977 and has been repeated every four years since 1980. This report includes data from the most recent national survey, conducted in 2008. Data limitations exist because the national survey and the Wisconsin survey differ by data year and the ways some questions were worded. The data cannot always be directly compared; nonetheless, many useful comparisons can be inferred.

The two categories of Wisconsin work settings (public and community health versus all other settings) compared in this report were based on categories used in *The Registered Nurse Population: Findings from the 2008 National Sample Survey of Registered Nurses* (U.S. Department of Health and Human Services, Health Resources and Services Administration, September 2010).

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