

national, state, and local agencies and organizations delivering the 10 Essential Public Health Services including the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA), which are utilizing the core competencies in unique ways to advance and strengthen workforce development efforts.

Implications for Policy, Delivery or Practice: The final list of core competencies for public health professionals will guide public health workforce development efforts. These competencies will ultimately help guide curriculum and content development of public health education and training programs for public health professionals and front-line healthcare workers. They may also be used by those in the practice setting as a standard by which staff are hired and evaluated, and may serve as a foundation for further discussions about credentialing of the public health workforce. This activity is aligned with other national efforts related to workforce development.

Primary Funding Source: HRSA

● The Magnitude and Consequences of Work-Related Violence:

The Minnesota Nurses Study

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Research Objective: Identify the incidence and outcomes of work-related violence among nurses.

Study Design: In this retrospective cohort study, work-related violence was defined as the intentional use of physical force or emotional abuse that resulted in physical or non-physical violence (including, threat, sexual harassment and verbal abuse). A mailed survey addressed work history, demographics, violence, and factors associated with violence, e.g., environmental and event characteristics, health and work consequences. Logistic regression analyses were conducted to estimate odds ratios for potential risk factors and confounders; re-weighting adjusted for unknown eligibility and non-response

Population Studied: 57,388 Registered Nurses (RNs) and 21,740 Licensed Practical Nurses (LPNs) licensed in Minnesota as of October 1, 1998; a random sample of 6,300 nurses working in Minnesota was selected.

Principal Findings: The estimated response rate was 78%. The average nurse was female, and 46 years old. The adjusted physical assault rate per 100 person years was 16 for LPNs and 12 for RNs. Regression results revealed the odds ratios for a physical assault decreased with age (0.985/year) and increased for: men (1.5); work at a long term care (2.4) or rehabilitation facility (1.8) compared with an inpatient hospital; assignment to an emergency (2.1) or psychiatric department (1.9) compared with medical/surgical; and care of geriatric patients (2.0) compared with adults. Injuries included bruises/contusions (34%), temporary discolorations/slap marks (22%) and lacerations/scratches (18%). Emotional outcomes included frustration (47%), anger (33%), and fear/stress (26%); 8% reported persistent problems. Over 5% of nurses reported work restrictions and 2% quit or transferred voluntarily.

The non-physical violence rate (including threat, harassment and verbal abuse) per 100 persons per year was 39.7 for LPNs and 38.5 for RNs. Regression results revealed the odds ratios for non-physical violence decreased with age (0.98/year) and increased for: work at a rehabilitation (3.5) or long term care facility (1.4) compared with inpatient hospital; assignment to a psychiatric (3.4), emergency (2.7) or intensive care (1.4) department compared with medical/surgical; and care of geriatric patients (1.2) compared with adults. Emotional outcomes included frustration (61%), anger (60%), and fear/ stress

(40%), irritability (27%), sadness (21%) and fatigue (20%); 13% of nurses reported persistent problems. Work restrictions resulted for nearly 9% of the nurses and 9% quit or transferred voluntarily.

Conclusions: The incidence of non-physical violence (including threat, harassment and verbal abuse) was nearly three times greater than physical violence. Common risk factors were environmental (e.g., primary work in a long term care or rehabilitation facility; assignment to an emergency or psychiatric department; caring for geriatric patients). Emotional sequelae were important repercussions for physical and non-physical violence, and surprisingly, more common for non-physical violence.

Implications for Policy, Delivery or Practice: Voluntary guidelines to prevent work-related violence among health workers have been available through the Occupational Safety and Health Administration since 1996; yet, these nurses reported significant violence. Given the nursing shortage, health care administrators would benefit by working collaboratively with nursing staff, occupational health and safety professionals, and supervisors to identify high-risk environments and associated prevention and control measures to enhance working conditions.

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● Relative Demand for Physicians by Specialty in New York State, 1998-2001

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Research Objective: To assess demand for physicians by specialty using an annual survey of residents completing training.

Study Design: An annual survey of all physicians completing a residency or fellowship training program in New York State between 1998 and 2001. The survey is conducted in collaboration with the teaching hospitals in the state. The questionnaire, completed by each individual resident, collects extensive information on their demographic and educational background, their post-training plans and their perceptions of the job market for new physicians. Over 3,000 residents completed the survey in 1998 (66% response rate); 3,400 completed the survey in 1999 (73% response rate); 2,800 completed the survey in 2000 (65% response rate); and 2,800 completed the survey in 2001 (65% response rate).

Population Studied: All residents and fellows completing a residency training program in New York State in 1998, 1999, 2000, and 2001.

Principal Findings: Despite the rich supply of physicians in New York State, demand for new physicians is high. In 2001, only 5% of survey respondents with permanent citizenship status had not received any job offers prior to graduation. In addition, while 30% of respondents reported some difficulty finding a satisfactory practice position, only 18% of these attributed their difficulty to an overall lack of jobs. However, there were significant differences in respondents' job market assessments for different specialties even when controlling for a respondent's location of medical education (USMGs vs. IMGs). Based on a variety of indicators, the demand for residents completing training in primary care specialties (including Family Practice, General Internal Medicine, General Pediatrics, and Combined Internal Medicine & Pediatrics) was less than the demand for non-primary care specialists. For example, the income of primary care physicians was well below specialist incomes and the difference grew over time. Demand was particularly high for some specialties, like dermatology, gastroenterology, anesthesiology, and radiology.

Conclusions: Despite predictions that the nation was going to face a surplus of physicians by the end of the twentieth century, the demand