Background

The Association of State and Territorial Public Health Nutrition Directors (ASTPHND), with support from a cooperative agreement with the U.S. Department of Agriculture (USDA), conducted a census of the professional and paraprofessional public health nutrition workforce in the states and territories. ASTPHND has conducted periodic profiles of the public health nutrition workforce since 1985. Members of ASTPHND in their respective states and territories conducted the census reported in this paper during 1999-2000. Prior to this, ASTPHND's last survey was conducted in 1994.

The goals of the workforce census were:

- To collaborate with USDA to identify trends in the public health (PH) and community nutrition workforce.
- To determine the capacity of the public health and community nutrition workforce in accomplishing program goals and meeting priority needs.
- To assist USDA and state public health agencies in planning and evaluating their recruitment and retention efforts.
- To identify training needs of public health nutrition personnel working in the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) in relation to their job responsibilities, credentials, education, and longevity.
- To measure qualifications of WIC nutrition staff in all states and territories.

The study was designed as a census of persons who work as nutrition professionals or nutrition paraprofessionals in a public health nutrition program such as WIC or in other public health programs or services under the purview of the state health agency. It is important to note that there is considerable variation between states with regard to the programs administered by their state health agencies. For example, state health agencies may or may not have oversight responsibility for Medicaid, the regulation of health facilities, and/or the Child and Adult Care Food Program (CACFP). As a result, some state nutrition directors included nutrition personnel working within these programs in their survey because in their states these personnel are classified as public health nutrition positions. In states where these programs are not administered by the state health agency, nutritionists working within the programs were not surveyed because they were not considered a part of the public health workforce. Although this variation has implications for the conclusions and generalizations that can be made concerning the public health nutrition workforce, ASTPHND has encountered this variability in all of its previous workforce surveys.

ASTPHND designed a 30-item fixed response instrument that required 10-20 minutes to complete. The final questionnaire included questions about the type and location of practice, job classification, source of funding, annual salary, training, education, certification or credentials, perceived training needs, participation in professional organizations, and personal characteristics (gender, race and ethnicity, primary and secondary languages). Ease of administration and burden of response, as well as applicability and comparability across states and time, were primary criteria for selection of items. Starting with the instrument used in ASTPHND's 1994 census, the questionnaire was revised, reviewed by stakeholder organizations, pretested and fielded in October 1999. State nutrition directors completed the collection and processing of data by September 2000.

Data were collected on 10,904 positions of which 595 were vacant at the time of data collection.
collection. Each state submitted data files to a central location for analysis. The overall estimated response rate for the filled positions, based on transmittal forms supplied by the state directors, was 88 percent (10,309/11,718). The reported state-specific response rates ranged from 45.9 percent (Washington) and 53.4 percent (New Mexico) to 100 percent (Arkansas, Guam, Iowa, Maine, Nevada, Oregon, Puerto Rico, South Dakota, Tennessee, Utah). The most significant difference in state participation compared to the 1994 survey was the participation of California in 1999. With a reported 2,640 public health nutrition professionals and paraprofessionals, California employs nearly 24 percent of the entire workforce surveyed, considerably more than New York (667), Florida (504), or Texas (486).

Findings

The majority of public health nutrition workers are government employees. Nearly 68 percent of public health nutrition workers are employees of state or local government health agencies. WIC workers are more likely to be employed in local health agencies (49.3 percent) than in other types of agencies, while the non-WIC workers are most frequently employed by state health agencies (36.6 percent) and local health agencies (34.5 percent). More than one-fourth of the workforce (28.4 percent) is employed by the private sector in not-for-profit organizations. Seventy-five percent of the WIC workers reported their location of work to be local health agencies, community health centers or other government field offices. There is no indication that privatization from public agencies to private nonprofits and for-profits or the use of contract workers increased between 1994 and 2000.

WIC is the primary funding source for the public health nutrition workforce. Ninety percent of the respondents (9,853/10,904) are employed in WIC programs. This represents 81 percent of the total 9,951.5 full-time equivalents (FTEs), and this has not changed significantly since the 1994 census, when 81.7 percent of the FTEs were funded by WIC. In addition to WIC, other USDA programs such as the Food Stamps Program and the CACFP account for an additional 129 FTEs. State and local funds account for 4.2 percent and 2.6 percent of FTE funding, respectively. The U.S. Department of Health and Human Services is the source of funding for another 4.7 percent of FTEs.

More than two-thirds (69.2 percent) of the public health nutrition positions are classified as professional, and 30.7 percent are classified as paraprofessional/other. Overall, the WIC nutrition workforce includes a higher proportion of paraprofessional positions than does the non-WIC nutrition workforce. Among the WIC nutrition workforce, 67.2 percent indicated they held professional positions, 30.7 percent held paraprofessional positions, and 1.9 percent were breastfeeding peer counselors or other classifications. Among the non-WIC respondents, 87.6 percent were classified in professional positions, but there were very few paraprofessionals - only 4.9 percent.

Public health nutrition workers constitute a very experienced workforce. More than two-thirds of the non-WIC nutrition workforce indicated 10 or more years of experience in the field of nutrition. Nearly half (47.3 percent) of the WIC nutrition workforce has been practicing nutrition for a similar length of time. Less than 4 percent of the entire workforce had been employed in the nutrition profession for less than one year at the time of data collection. Although their overall tenure in nutrition is less, the WIC workforce and the non-WIC workforce have a comparable amount of long-term experience in public health nutrition with 34 percent and 38 percent, respectively, having 10 or more years of work experience.

The proportion of registered dietitians (RDs) and registered dietetic technicians (DTRs) in the public health nutrition workforce did not increase between 1994 and 1999. In ASTPHND's 1994 survey of the workforce, RDs made up 42.1 percent of the workforce and DTRs 2.4 percent. In 2000, 41 percent of the public health nutrition workforce reported being an RD, and 2.3 percent reported being a DTR. Among the WIC nutrition workforce, 37.6 percent are RDs, and 2.5 percent are DTRs. The proportion of the workforce with a nutrition-
related bachelor's degree is higher than the proportion of RDs in the workforce. More than half of the public health nutrition workforce have at least a bachelor's degree in nutrition or dietetics, with the proportion being somewhat higher among non-WIC workers compared to WIC workers (69.5 percent and 53.7 percent, respectively).

The public health nutrition workforce is diverse but seemingly less so than WIC participants. More than 95 percent of the workers are female. The racial/ethnic identity of WIC workers is more diverse than the non-WIC workforce but less diverse than the WIC participant population. Nineteen percent of the workforce reported being Latino, 11 percent African American, and 8 percent Asian, American Indian, Alaskan Native, Hawaiian, and other Pacific Islanders. Two-thirds of the workforce indicated race as white. Fourteen percent of respondents did not respond to the question - a nonresponse that is considerably higher than expected - making comparisons across time and with other populations difficult. Very few (0.5 percent) indicated multiple categories of race.

Eighty-three percent of the nutrition workforce report English as their primary language. Many other languages are also spoken. Nearly 30 percent (29.2 percent) speak Spanish as either their primary or secondary language. Thirty-eight percent speak more than one language.

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