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METHODS AND LIMITATIONS: 2013 CORE COMPETENCY ASSESSMENT REPORTS

Local Health Department and Regional Reports

North Carolina Division of Public Health Report

THE NORTH CAROLINA
Institute *for* Public Health

LOCAL HEALTH DEPARTMENT AND REGIONAL REPORTS

METHODS

During spring 2013, all employees in local health departments (LHDs) throughout North Carolina were provided the opportunity to participate in the anonymous survey administered online through *Qualtrics*. Survey questions included basic demographic information, service in the public health workforce, interest in professional development activities and a public health competency assessment based on the The Council on Linkages Between Academia and Public Health Practice's Core Competencies for Public Health Professionals. The North Carolina Institute for Public Health at the University of North Carolina at Chapel Hill conducted the analyses using *SAS* version 9.2 and prepared the reports described below.

Demographics

Demographic information including gender, age category, race, and education is reported for all survey respondents in a LHD. For age, respondents could select a category beginning with 18-24 years old and increasing by 10 year age categories until age 75, at which point the option was 75+. For the purposes of reporting, age categories were collapsed as follows to best reflect the distribution of respondents across LHDs: <25, 25-34, 35-44, 45-54, 55-65, and 65+ years.

Race categories in the survey were White, Black or African-American, Hispanic/Latino, American Indian or Alaskan Native, Asian, Pacific Islander or Native Hawaiian, Other (with write-in) or Do not know/unsure/no answer. To best reflect the populations in North Carolina and to be consistent with prior statewide workforce assessments, race was collapsed to the following categories: White, Black or African-American, American Indian or Alaskan Native, Hispanic, or Other. The "Other" category included anyone who listed themselves as Asian, Pacific Islander or Native Hawaiian, Other, or wrote in a multi-racial background or other race that was not categorized.

Respondents were asked their highest educational attainment from the following options: High School/GED, Vocational Training, Some College/No Degree, Associate/Technical Degree, Nursing, Bachelors, Masters, Professional Degree (MD, DDS, JD, etc) or Other Doctoral Degree. All categories were retained in the results except Professional Degree was collapsed with Other Doctoral Degree.

Service in the public health workforce

Respondents were asked about their years in the public health workforce based on the following categories: <5 years, 5 to 9 years, 10-14 years, 15-19 years, and 20+ years.

For their role in the LHD, respondents had to select one of 19 options, including a write-in "Other" option. A large number of respondents opted to write in their role. Survey analysts classified their write-ins using several criteria. Decisions were made based on using the aggregate information across all LHDs.

First, any write-in that indicated a nursing role was classified as nursing. This included the following: certified nursing assistants (CNAs), nurse practitioners (NPs), certified nurse midwives (CNMs), midwives, licensed practicing nurses (LPNs), school health nurses, public health nurses, registered nurses (RNs), and family nurse practitioners (FNPs). Write-ins with acronyms matching any of the aforementioned nursing professions were assumed to be nurses. In addition, for responses with ambiguous write-ins that could be classified in different ways (e.g. physician extenders or PEs), a cross-check with answers to another question about nursing degrees was also performed to identify nurses. All those with nursing degrees identified in the cross-check were classified as nurses for their LHD role.

Second, if many respondents across LHDs had the same answer that could not be classified into an existing category, a new role was created. This resulted in the following new roles: animal control, translator/interpreter, physician's assistant, preparedness, pharmacy, and lab.

Third, any write-in that could be reasonably classified in an existing role (from the original option list) or one of the newly-created roles was classified as such. As an example, anyone who wrote in nutrition, WIC, diet, LDN, or breastfeeding was classified as "Nutritionist/WIC" (an option from the question).

Fourth, all write-ins roles that could not otherwise be classified were collapsed into the "Other" category. This included numerous responses, including but not limited to the following: quality improvement, IT, housekeeping, research, phlebotomists, and community health assistants.

Fifth, any write-ins that indicated multiple roles were classified by the first one listed under the assumption that the first one was likely to be the primary role.

Sixth, and finally, anyone who indicated that they were a health director or interim health director was classified as a health director, regardless of any other roles (including nursing) that they filled. The role of health director was assumed to be the most primary.

For reporting purposes, all LHD roles that were represented by less than 5% of the workforce in an LHD were collapsed into the "Other" category.

The percentage of respondents for an LHD was calculated using the total number of respondents for the LHD divided by the total number of public health employees for that county. The number of full-time public health employees for County-level percentages come from the North Carolina Division of Public Health, State Center for Health Statistics report, *Local Health Department Staffing and Services Summary, Fiscal Year 2010-2011.*

Competency Assessment

Before completing the public health competency assessment, respondents were asked to select one of four options that identified them as management support, entry level (Tier 1), management level (Tier 2), or leadership level (Tier 3). Those who identified as management support were not placed in a tier and did not complete the competency assessment.

The specific definitions of employment levels are as follows:

- **Management Support**: An individual who plays a critical administrative/clerical function, but is not providing a public health service nor in a management position.
- **Tier 1 (Entry Level)**: An individual in a public health position who carries out the day-to-day tasks of public health organizations and is not in a management position. Responsibilities of these public health professionals may include: basic data collection and field analysis, fieldwork, program planning, outreach activities, programmatic support, and other organizational tasks.
- **Tier 2 (Management Level)**: An individual with program management and/or supervisory responsibilities. Other responsibilities may include: program development, implementation, and evaluation; establishing and maintaining community relations; managing timelines and work plans; presenting arguments and recommendations on policy issues, etc.
- **Tier 3 (Leadership Level)**: An individual at senior/management level and leaders of public health organizations. In general, Tier 3 public health professionals include individuals who are responsible for the major programs or functions for an organization, setting a strategy and vision for the organization, and/or building the organization's culture. Tier 3 public health professionals (e.g., health officers, executive directors, CEOs, etc.) typically have staff who report to them.

For all Tiers, the competency assessment was structured by the eight domains of Core Competencies for Public Health Professionals:

1. Analytical/Assessment Skills
2. Policy Development/Program Planning Skills
3. Communication Skills
4. Cultural competency Skills
5. Community Dimensions of Practice Skills
6. Public Health Sciences Skills
7. Financial Planning
8. Management Skills

Within each domain, the competency questions varied depending on the Tier. [Note: For a complete listing of competencies, please see:
http://www.phf.org/resourcestools/Documents/Core_Competencies_for_Public_Health_Professionals_2010May.pdf].

For each competency question (regardless of domain or Tier), respondents were asked to rate each competency in terms of their own current skill level and in terms of the relevance of that competency to their current job. To assess skills, respondents chose one of the following four options: 1) I am unaware, or have very little knowledge of the skill, 2) I have heard of it; limited knowledge or ability to apply the skill, 3) I am comfortable with knowledge or ability to apply the skill, or 4) I am very comfortable, an expert; could teach this to others. To assess skills, respondents chose one of the following four options: 1) Not relevant at all, 2) Somewhat relevant, 3) Relevant, or 4) Highly relevant.

To best identify areas in which training could have the greatest impact, competencies for which respondents reported "high relevance" and a "skill gap" were identified. High relevance was defined as relevance rating ≥ 3. Skill gap was defined as a Skill rating < Relevance rating. Together, these two criteria reflect both importance of the competency to the respondents' job function and need for skills training relative to the importance of the job function.

Table 1 shows the number of respondents within a domain who had at least one competency in the domain that met both of the following criteria: 1) had a skill gap (relevance rating > skill rating) and 2) had a relevance rating ≥ 3.

Table 2 shows the "Top 10 Competencies," regardless of domain, that were identified by the greatest number of respondents as meeting both of the following criteria: 1) had a skill gap (relevance rating > skill rating) and 2) had a relevance rating ≥ 3. The "Top 10" are provided by Tier.

Because very few individuals in any LHD are in Tier 3, and in many cases only a few individuals are in Tier 2, those tiers were collapsed (i.e., combined) for the purposes of reporting competency results. For any LHD that had < 10 respondents overall and had a total response rate <20%, all Tiers were collapsed. Collapsing Tiers prevents individual identification of respondents.

LIMITATIONS

Results reflect the counts and percentages from respondents in a LHD. It is important to note that respondents may not represent the entire workforce. In some questions (e.g., role in the health department), respondents may belong in more than one category but could only choose one. Some answers may be under-represented.

In particular, the question that asked respondents to identify their role in the LHD had numerous options, including space to write-in a response. Because of the numerous options, and because the survey analysts had to make decisions for classifying write-in responses, there may be misclassification of LHD role. For this reason, and due to overall small numbers by Tier within LHDs, competency results were not evaluated by LHD role.

Highest educational attainment may also have been a particularly ambiguous question for respondents who have multiple degrees that are not easily ranked. For example, those with some combination of vocational training, some college, or a nursing degree may not have been completely clear on what to select and could have misclassified themselves.

The competency questions only applied to those who identified themselves in one of the Tiers; management support personnel only completed demographics questions. Because Tiers 2 and 3 (in particular, Tier 3) had very low numbers (in many cases, only 1 individual), they were collapsed to help protect the identity of respondents. Because the competencies varied by Tier, collapsing them means that the results are more crude (less specific) than they would be if the Tiers could be reported separately.

In addition, the survey was based on self-report and self-assessment. Interpretation of questions, as well as individual ability to assess, may vary by respondent. It is important for the health director and the management team to vet the results in order to determine the validity of the data in the current health department environment.

NC DIVISION OF PUBLIC HEALTH REPORT

METHODS

During spring 2013, all employees in the North Carolina Division of Public Health (NC DPH) were provided the opportunity to participate in the anonymous survey administered online through *Qualtrics*. Survey questions included basic demographic information, service in the public health workforce, interest in professional development activities and a public health competency assessment based on the The Council on Linkages Between Academia and Public Health Practice's Core Competencies for Public Health Professionals. The North Carolina Institute for Public Health at the University of North Carolina at Chapel Hill conducted the analyses using *SAS* version 9.2 and prepared the reports described below.

Demographics

Demographic information including gender, age category, race, and education is reported for all NC DPH survey respondents. For age, respondents could select a category beginning with 18-24 years old and increasing by 10 year age categories until age 75, at which point the option was 75+. For the purposes of reporting, age categories were collapsed as follows to best reflect the distribution of respondents across NC DPH: <25, 25-34, 35-44, 45-54, 55-65, and 65+ years.

Race categories in the survey were White, Black or African-American, Hispanic/Latino, American Indian or Alaskan Native, Asian, Pacific Islander or Native Hawaiian, Other (with write-in) or Do not know/unsure/no answer. To best reflect the populations in North Carolina and to be consistent with prior statewide workforce assessments, race was collapsed to the following categories: White, Black or African-American, American Indian or Alaskan Native, Hispanic, or Other. The "Other" category included anyone who listed themselves as Asian, Pacific Islander or Native Hawaiian, Other, or wrote in a multi-racial background or other race that was not categorized.

Respondents were asked their highest educational attainment from the following options: High School/GED, Vocational Training, Some College/No Degree, Associate/Technical Degree, Nursing, Bachelors, Masters, Professional Degree (MD, DDS, JD, etc.) or Other Doctoral Degree. Respondents may have had multiple degrees. All categories were retained in the results except Other Doctoral Degree was collapsed with Professional Degree and Vocational Training was combined with Associate/Technical Degree. Six respondents (0.5%) identified Nursing as highest educational attainment, but the specific level of the degree was not indicated.

Service in the public health workforce

Respondents were asked about their years in the public health workforce based on the following categories: <5 years, 5 to 9 years, 10-14 years, 15-19 years, and 20+ years.

For their NC DPH Section, respondents had to select one of 13 options, including a write-in "Other" option. Survey analysts used several criteria to classify write-ins and to re-classify some respondents who were misclassified due to limitations in the survey options. First, an option on the survey that is not a Section according to NC DPH, "Minority Health and Health Disparities," was identified. The two respondents who chose this were reclassified based on answers to subsequent questions about Branch and Position.

Second, a Section option that should have been available but was omitted from the survey, "Occupational and Environmental Epidemiology," was created. The 25 respondents who indicated "Occupational and Environmental" on a subsequent question about Branch were re-classified to this Section. In the absence of the correct option, all 25 had classified themselves as either "Environmental" or "Epidemiology," providing some assurance that the re-classification was appropriate.

Third, those who identified as belonging to Children with Disabilities Service Agencies (CDSAs) were classified as "Women and Children's Health." The denominator for this Section was appropriately adjusted.

Fourth, any write-in that could be reasonably classified into one of the Sections was classified as such. As an example, anyone who wrote in WIC or children was classified as "Women and Children's Health" (an option from the question).

Fifth, any respondent who left the write-in option blank or had not yet been classified was examined for subsequent information in Branch and Position that may enable classification. None provided information that was sufficient for re-classification.

Sixth, and finally, all respondents that could not otherwise be classified were collapsed into the "Other" category. This included responses such as interpreter, housekeeping, home health, and those who did not provide information that enabled classification. For reporting purposes, all NC DPH Sections that were represented by less than 5% of the NC DPH were collapsed into the "Other" category.

The percentage of respondents for a NC DPH Section was calculated using the total number of respondents for the Section divided by the total number of public health employees in that Section. The Women and Children's Health section includes local CDSA employees. To calculate the response rate in the Women and Children's Health Section, the denominator was adjusted from 288 to 1,134, which includes the total number of CDSAs. The number of full-time Division of Public Health employees for Section-level percentages came from the NC DPH Office of the State Health Director and was based on the BEACON report, which does not account for vacant positions.

Competency Assessment

Before completing the public health competency assessment, respondents were asked to select one of four options that identified them as management support, entry level (Tier 1), management level (Tier 2), or leadership level (Tier 3). Those who identified as management support were not placed in a tier and did not complete the competency assessment.

The specific definitions of employment levels are as follows:

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For the overall NC DPH report, Tables 1 and 2 are provided by Tier. Because very few individuals in any Section are in Tier 3, and in many cases only a few individuals are in Tier 2, all three Tiers were collapsed together for the Section-specific tables. Collapsing Tiers prevents individual identification of respondents.

There were two Sections for which a Section-specific table could not be completed due to small sample size (N<10). These sections are Medical Examiner and State Health Director's Office. Respondents who could not be classified into a Section and remained in the "Other" category are not captured in any of the Section-specific tables.

LIMITATIONS

Results reflect the counts and percentages from NC DPH respondents. It is important to note that respondents may not represent the entire workforce. In some questions (e.g., NC DPH Section), respondents may have misclassified themselves based on the available options. Some answers may be over- or under-represented.

Highest educational attainment may also have been a particularly ambiguous question for respondents who have multiple degrees that are not easily ranked. For example, those with some combination of vocational training, some college, or a nursing degree may not have been completely clear on what to select and could have misclassified themselves.

The competency questions only applied to those who identified themselves in one of the Tiers; management support personnel only completed demographics questions. Because Tiers 2 and 3 (in particular, Tier 3) had very low numbers (in many cases, only 1 individual), competency tables collapsed all respondents together to help protect the identity of respondents in Section-specific reports. Because the competencies varied by Tier, collapsing them means that the results are more crude (less specific) than they would be if the Tiers could be reported separately.

In addition, the survey was based on self-report and self-assessment. Interpretation of questions, as well as individual ability to assess, may vary by respondent. It is important for the health director and the management team to vet the results in order to determine the validity of the data in the current health department environment.