

# NBPHE

## Job Task Analysis

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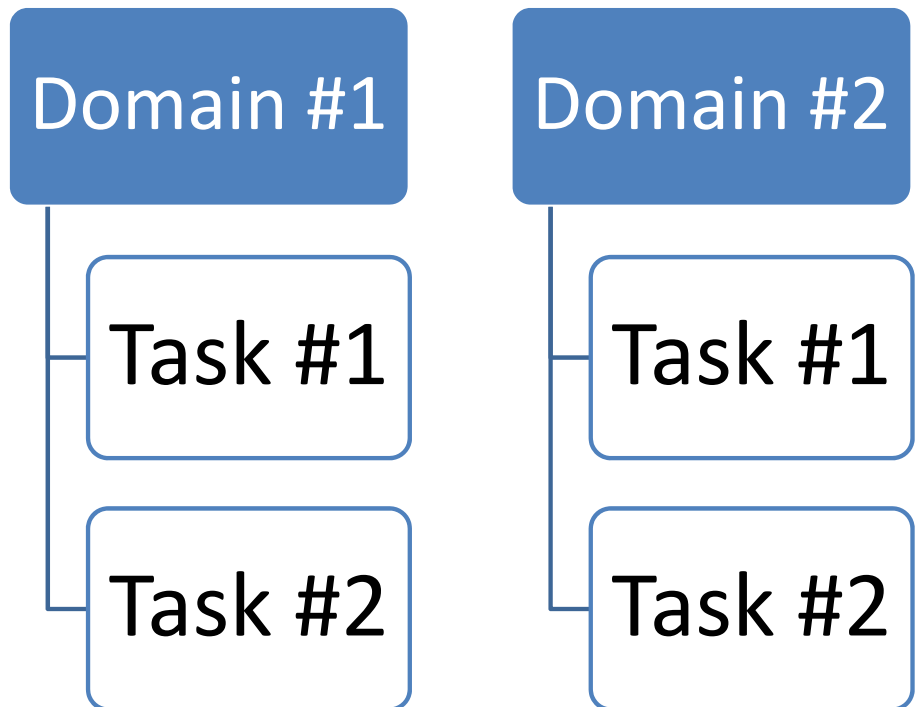
## Presentation Objectives

- Define a job task analysis
- State the purpose of the public health job task analysis
- Describe who conducted the analysis and their functions
- Describe the development of the survey
- Describe the survey respondents
- Describe the task domains and specific tasks that were most frequently selected by respondents



## What is a Job Task Analysis?

Survey to define **performance domains and tasks performed by a professional group**, and the necessary knowledge and skills associated with these tasks.



## Purpose of the Public Health Job Task Analysis

The purpose of the public health job task analysis is to survey the domains and tasks identified by workers as associated with their positions as the basis for refining the Certification in Public Health examination sponsored by the NBPHE. As our purpose was to impact the CPH examination, our focus is on workers with advanced degrees.



## Job Task Analysis Advisory Committee

- **Julie Sheen Aaron, MPH**, Chief Public Health Branch, HRSA
- **Vladimir Berthaud, MD, MPH**, Director, Division of Infectious Disease, Meharry Medical College
- **Terry Brandenburg, MBA, MPA, MPH**, Program Director, Medical College of Wisconsin
- **Justin Frederick, MPH, CPH**, Supervisor of Communicable Disease Epidemiology, Douglas County Health Department
- **John Jacoby, MBA, PhD**, Technical Advisor, Afton Chemical
- **Pia MacDonald, PhD, MPH**, Director, Epidemiology Center, Social & Scientific Systems, Inc.
- **Elizabeth Majestic, MS, MPH**, Association Director for Program Development, CDC
- **David Palm, MA, PhD**, Director of the Office of Community and Rural Health, Nebraska Department of Health and Human Services
- **Kalpana Ramiah, DrPH, MPH, MSc, CPH**, Principal Project Specialist, American Institutes for Research
- **Mary Helen Smith, MPH**, Director of Environmental Health, Mahoning County District Board of Health
- **Laura Streichert, PhD, MPH**, Executive Director, International Society for Disease Surveillance
- **Karen Sicard, JD, MPH**, Deputy Branch Chief, U.S. Public Health Service/Centers for Disease Control and Prevention
- **Allison R. Sullivan, MPH**, Consultant, Deloitte Consulting LLP



## Responsibilities of Advisory Committee

Define the target practitioner

Develop demographic questions

Develop job tasks and skills

Determine distribution plan



# Identifying major classifications of tasks





# Council on Linkages Core Competencies for Public Health Professionals



- Analytical/Assessment Skills
- Policy Development/Program Planning Skills
- Communication Skills
- Cultural Competency Skills
- Community Dimensions of Practice Skills
- Public Health Sciences Skills
- Financial Planning and Management Skills
- Leadership and Systems Thinking Skills





## ASTHO - Knowledge/Skills/Attitudes

- Systems Thinking
- Communicating Persuasively
- Change Management/Flexibility/
- Adaptability
- Informatics and Analytics
- Working With Diverse Populations
- Recruiting and Managing a Diverse
- Workforce
- Political Sensitivity
- Staff Development
- Resilience
- Problem Solving



## ASPPH Framing the Future: Blue Ribbon Public Health Employers' Advisory Board

An education in public health should ensure that students are grounded in:

- Problem-solving
- How the health system works
- Leadership
- Management and teamwork
- Global health
- Policy
- Analytic Methods
- Technology and information
- Budgeting and finance
- Communications



Council of Linkages	ASTHO	Blue Ribbon	Job Task Analysis	ASPPH MPH Report
Analytical/Assessment Skills	Informatics and Analytics	Analytic Methods & Technology and Information	Critical / Strategic Analysis	Analysis
Communication Skills	Communicating Persuasively	Communications	Communication	Communications
Diversity	Cultural Competency Skills	Working With Diverse Populations & Recruiting and Managing a Diverse	Diversity and Cultural Proficiency	Diversity
Policy Development/Program Planning Skills	Political Sensitivity	Policy	Advocacy	Policy
Leadership and Systems Thinking Skills	Systems Thinking	How the health system works	Leadership & Systems Thinking	Systems thinking
Financial Planning and Management Skills	Change Management/Flexibility	Management and teamwork & Budgeting and finance		
Public Health Sciences Skills		Biological and Environmental Applications in Public Health		Science
		Global health		Global Health
			Collaborating and Partnering	Collaboration

## Survey link was sent to:

### Direct Distribution

124,567 individuals

### Organizational Distribution

51 organizations including:

- APHA
- ASTHO
- CDC
- NACCHO
- Public Health Institutes



## Survey development

- Identify (200) task statements for the survey instrument
- Determine the rating scales:
  - Never performed
  - Not very important
  - Important
  - Very important
  - Essential



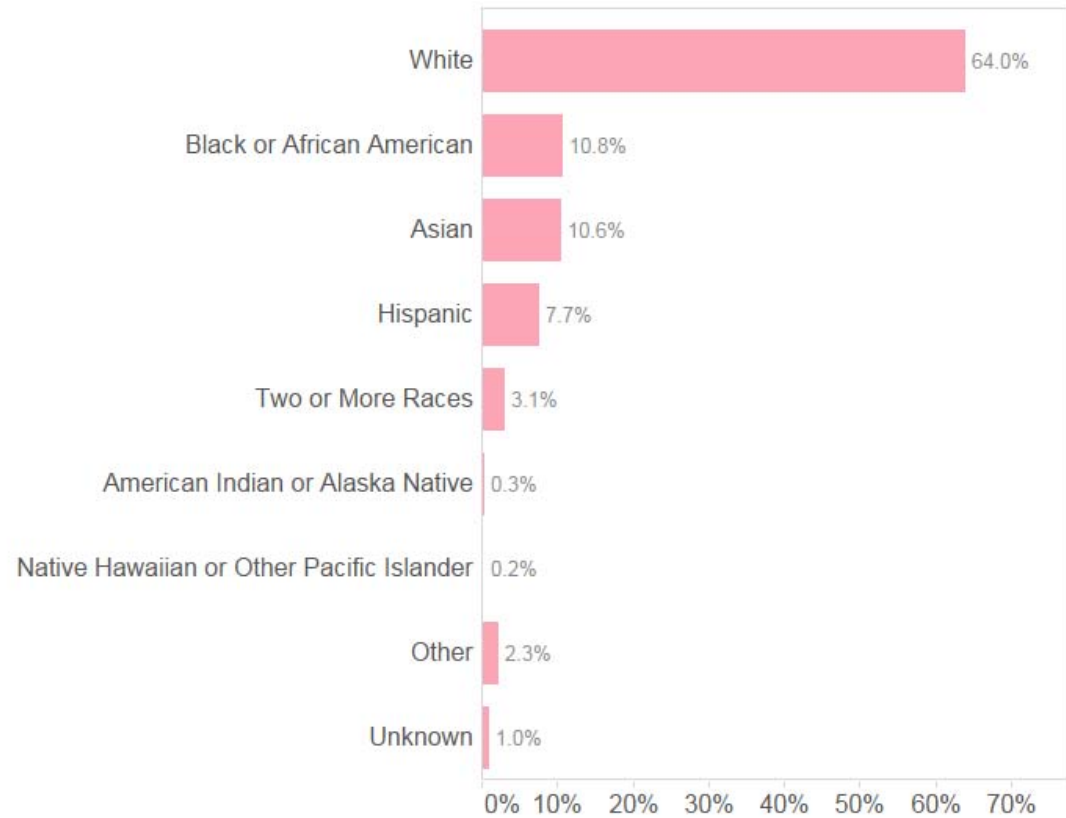
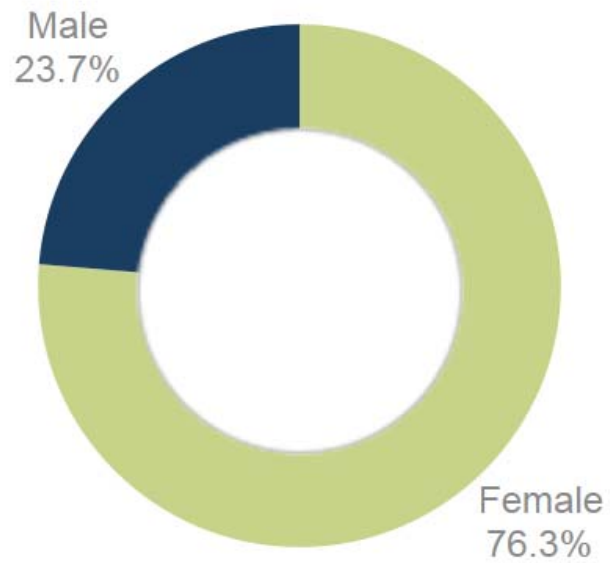
## Survey response

*Do not rate statements based on what you think other public health professionals do or should do. Rather, base your ratings on your current work as a public health professional.*

- **8,100** started the survey
- **7,441** completed part of the survey
- **4,850** provided usable survey responses
- **4,392** were employed and not current students



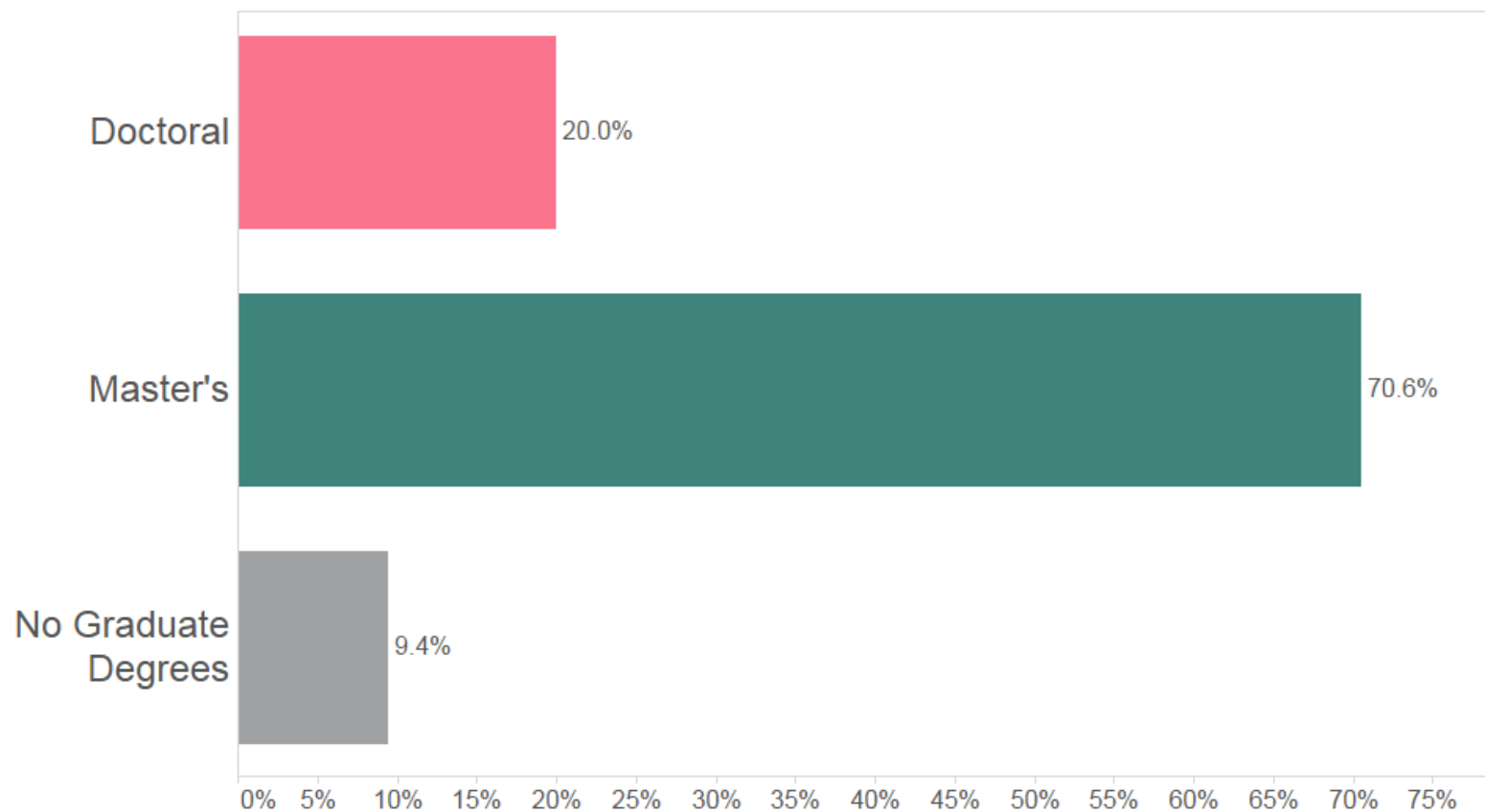
## Gender and Race/Ethnicity of Respondents





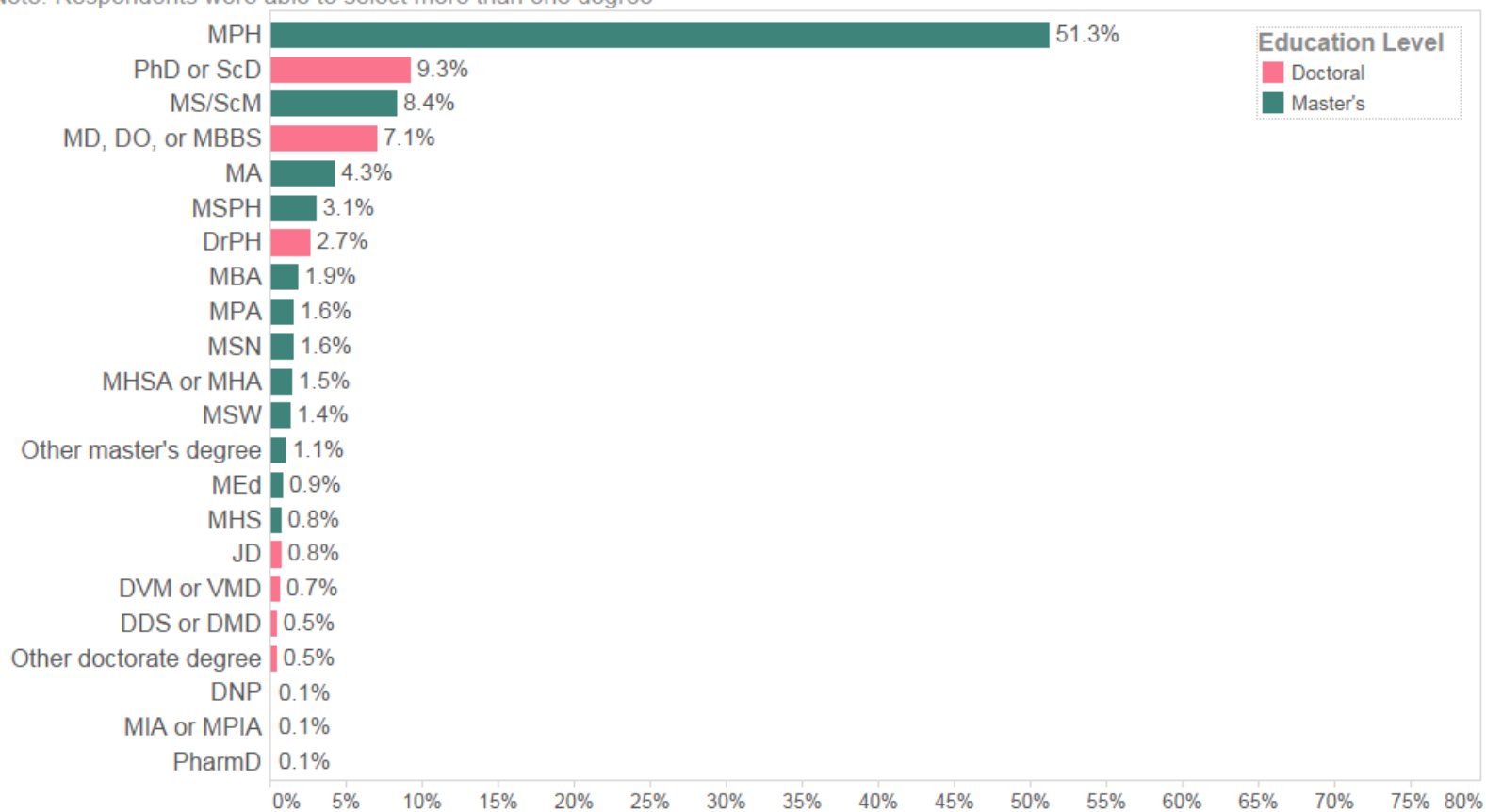
## Degree Level of Respondents

Note: Respondents were able to select more than one degree level

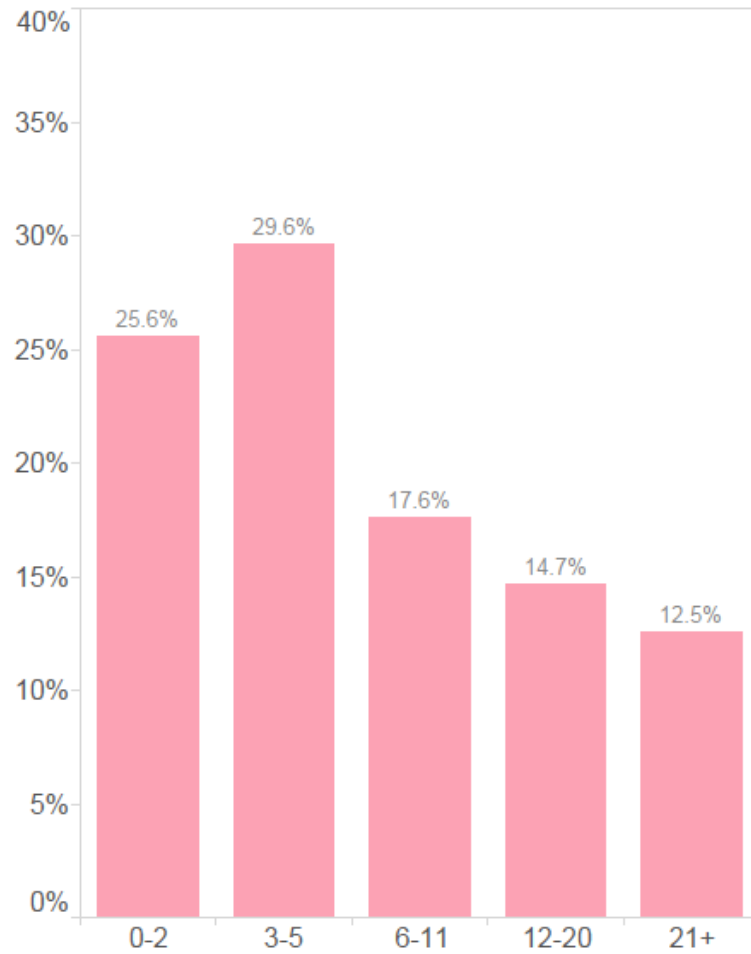


## Graduate Degrees

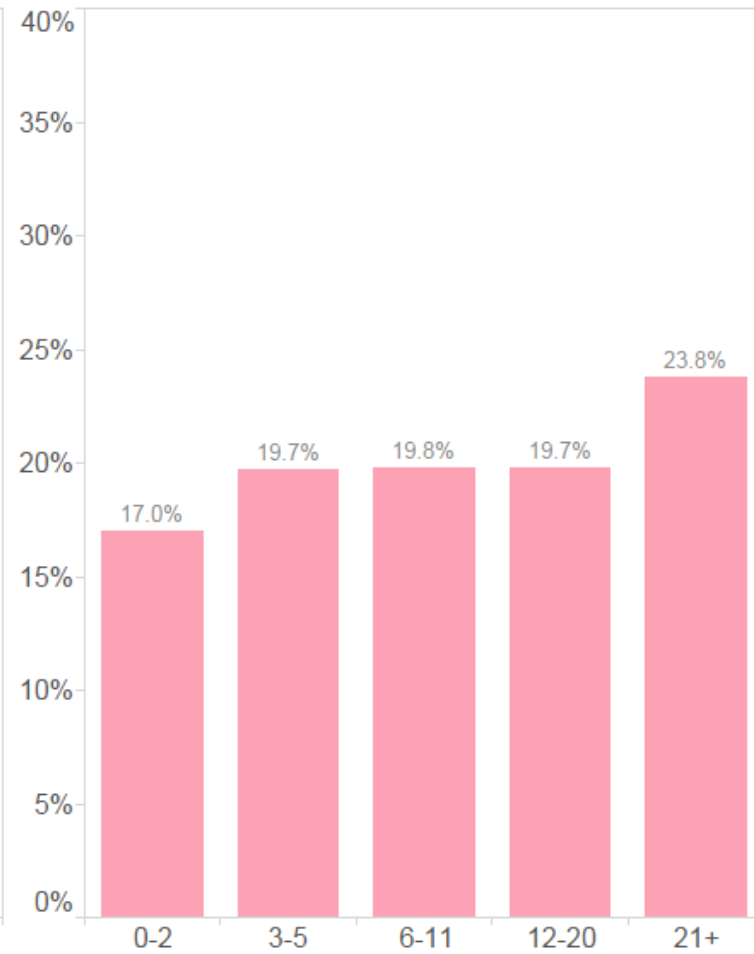
Note: Respondents were able to select more than one degree



**Years of Public Health Work Experience**



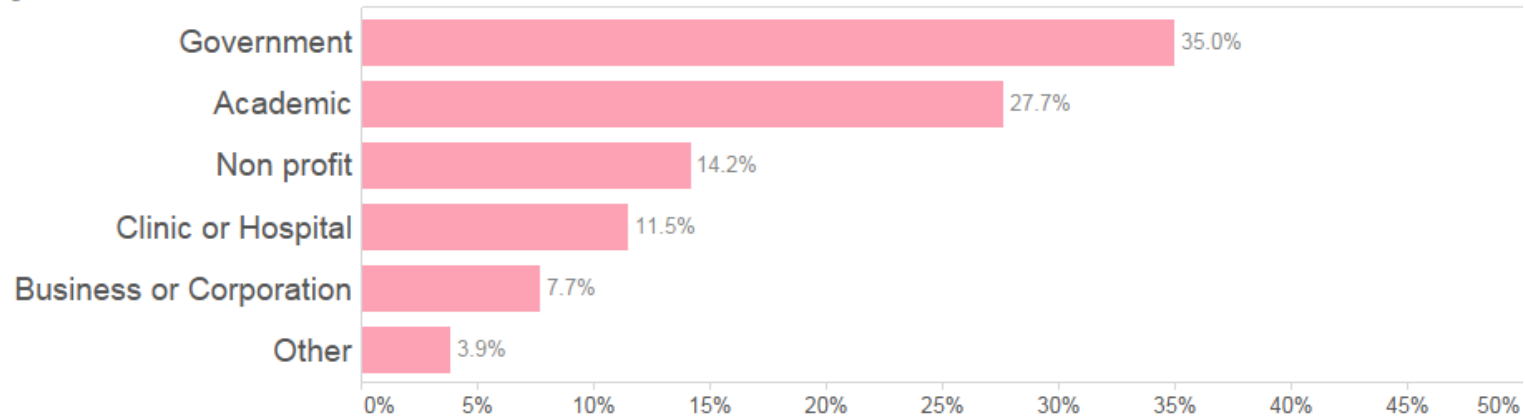
**Years of Total Work Experience**



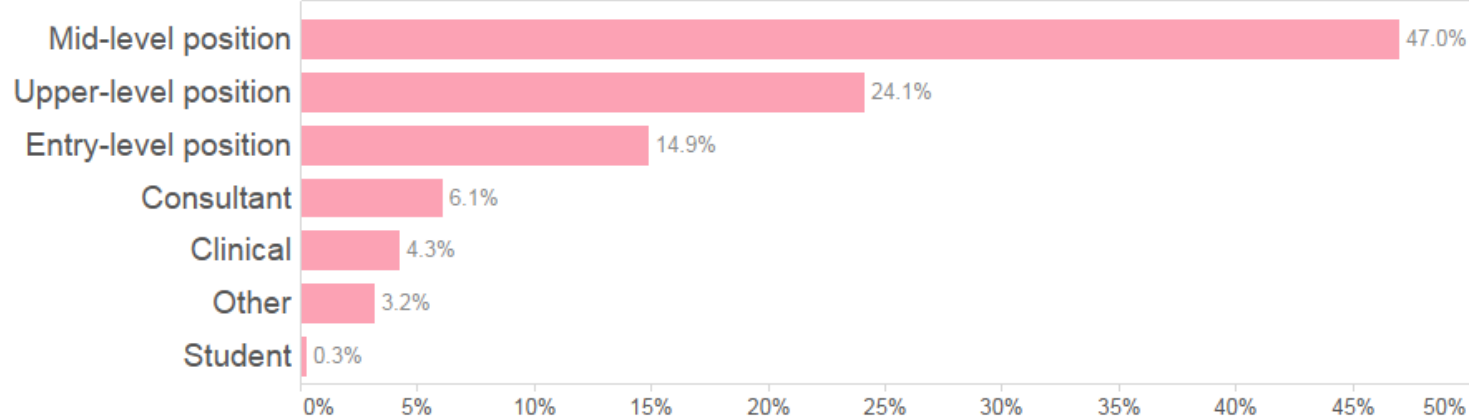
**National Board of Public Health Examiners**



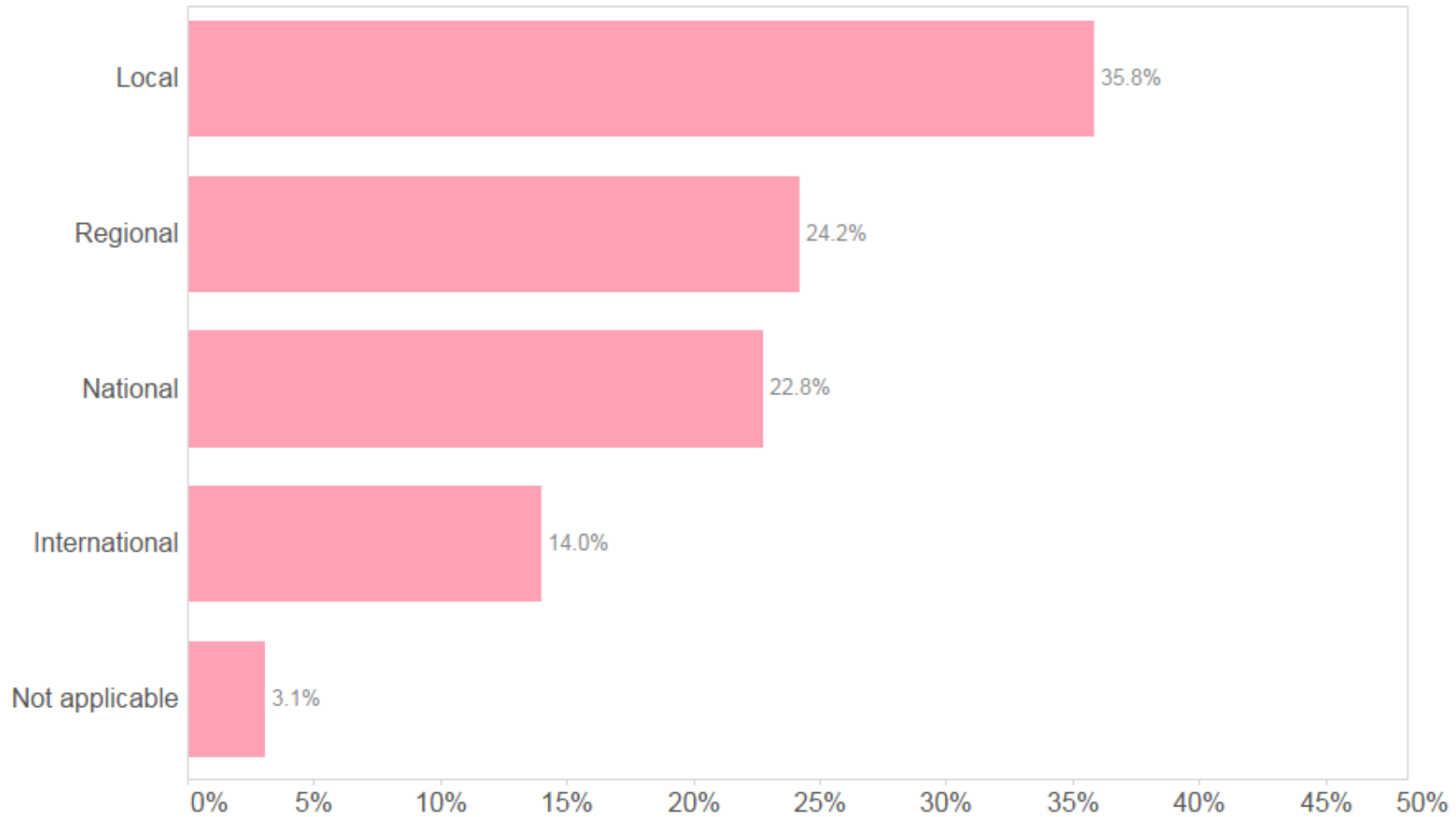
## Employment Sector



## Employment Level



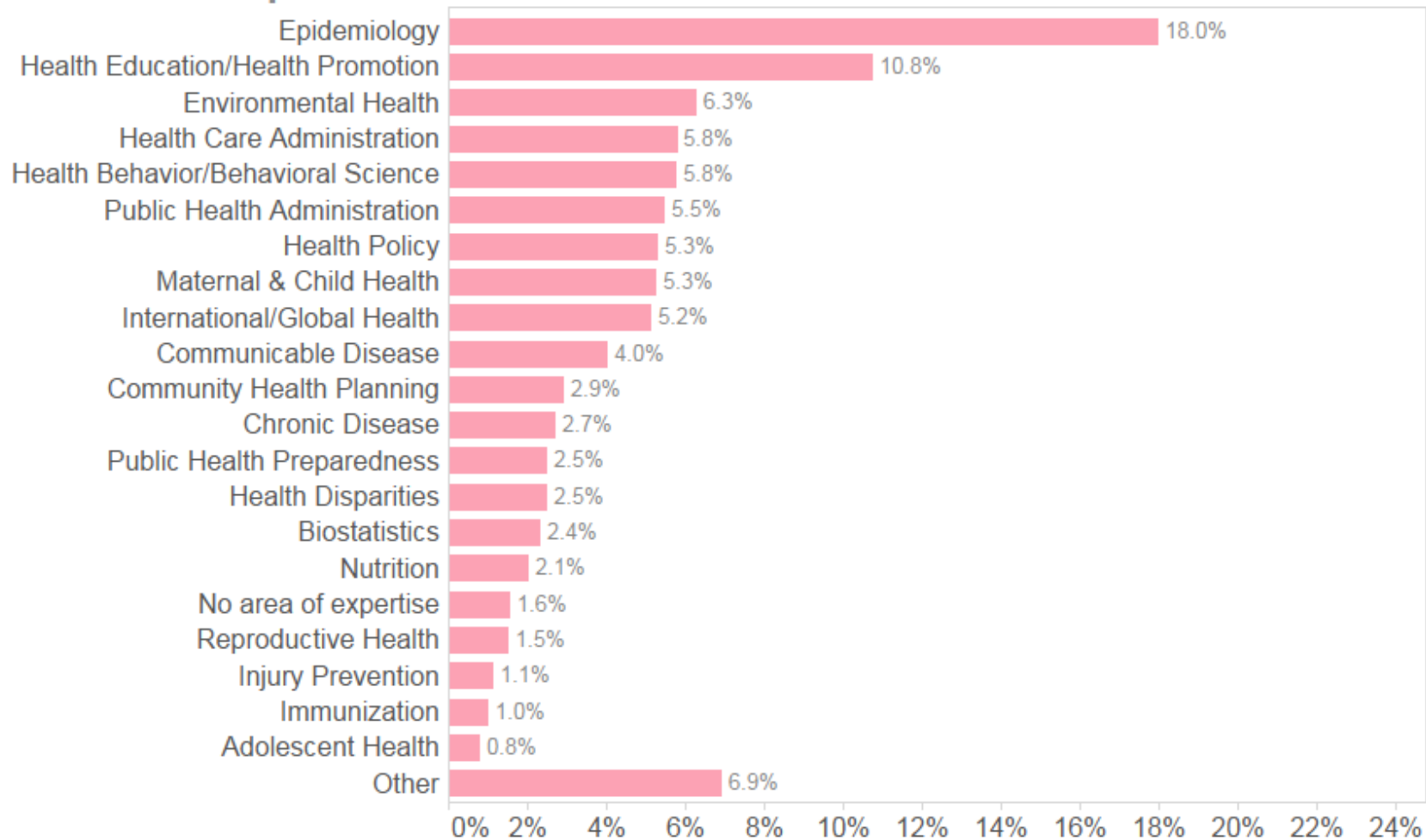
## Geographic Focus of Professional Responsibilities



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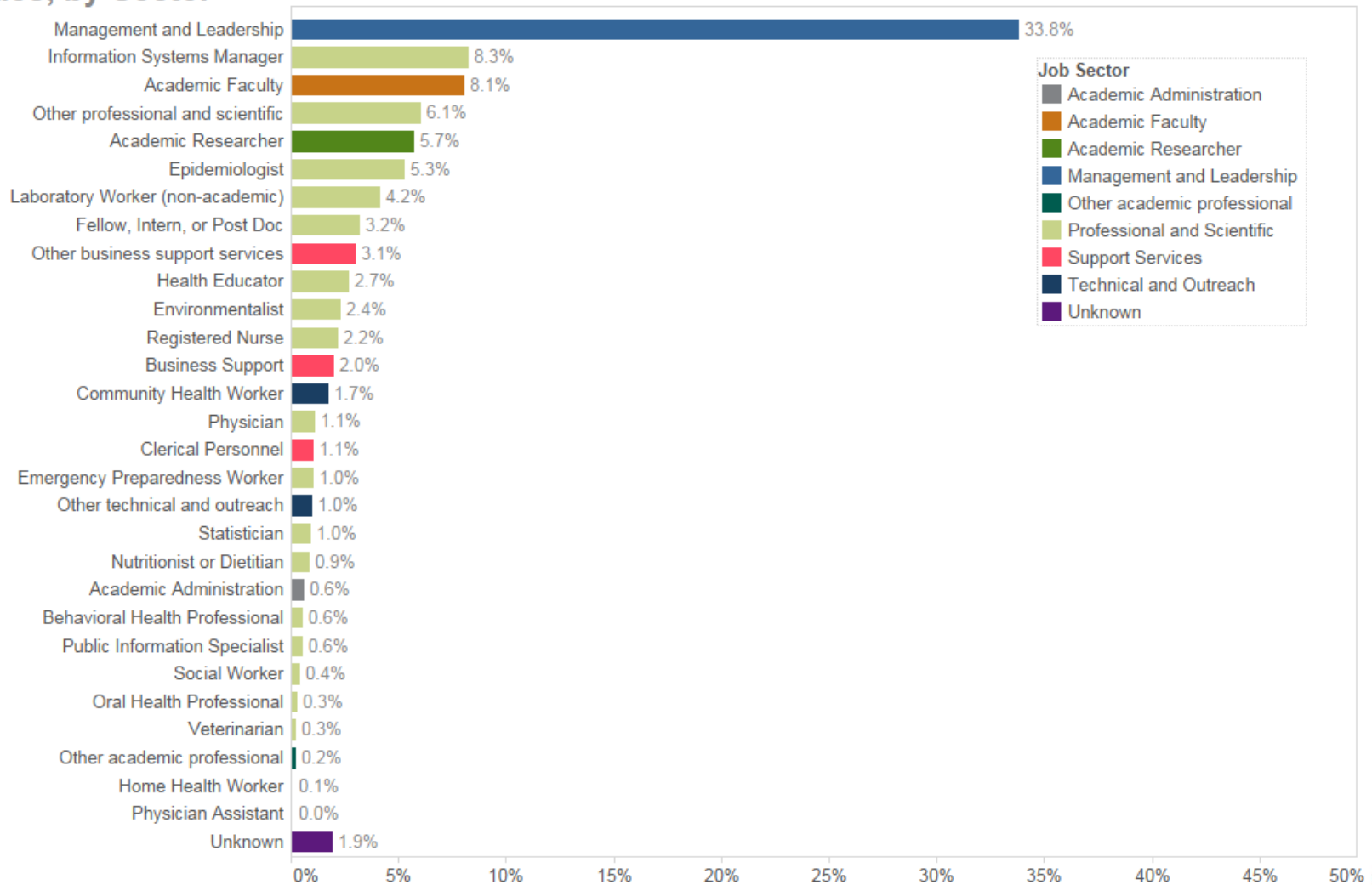
## Public Health Expertise



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## Job Titles, by Sector



# Task Significance Distribution

	Range	# of Tasks	%
Essential	3.50-4.00	0	--
Very important	2.50-3.49	182	91%
Important	1.50-2.49	18	9%
Not very important	.50-1.49	0	--
	Total	200	100%





## Reliability of Significance Ratings

Domain	N		# of Tasks	Between Tasks (Coefficient Alpha)	Between Raters (Inter-rater Reliability)
	Valid*	Missing			
Critical / Strategic Analysis	1,681	3,169	23	0.94	0.39
Biological & Environmental Applications in Public Health	1,834	3,016	13	0.95	0.60
Leadership & Systems Thinking	1,490	3,360	27	0.97	0.53
Management, Finance & Policy	1,448	3,402	28	0.98	0.60
Program Planning	1,601	3,249	42	0.99	0.64
Collaborating & Partnering	2,489	2,361	11	0.95	0.66
Communication	1,593	3,257	27	0.98	0.64
Advocacy	2,067	2,783	9	0.95	0.67
Ethics	2,173	2,677	8	0.95	0.68
Diversity & Cultural Proficiency	1,852	2,998	12	0.97	0.70



## Domain Ratings

Domain	N	Mean	Std. Deviation
Critical Strategic Analysis	4391	2.38	0.87813
Collaborating Partnering	4281	2.28	1.18245
Ethics	4108	2.27	1.18404
Leadership Systems Thinking	4391	2.12	1.06881
Diversity Cultural Proficiency	4113	1.98	1.28345
Program Planning	4391	1.96	1.18287
Communication	4167	1.95	1.13054
Management Finance Policy	4391	1.95	1.12520
Advocacy	4147	1.83	1.28283
Biological Environmental Applications in Public Health	4391	1.73	1.19116



## Top Ten Rated Tasks

Task	N	Mean	Std. Deviation
Collect valid and reliable quantitative or qualitative data.	4391	3.26	1.05
Use information technology for data collection, storage, and retrieval.	4384	3.18	1.04
Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	4105	2.92	1.32
Interpret quantitative or qualitative data following current scientific standards.	4370	2.85	1.25
Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	4103	2.82	1.39
Identify key stakeholders.	4265	2.75	1.30
Identify opportunities to partner with health and public health professionals across sectors and related disciplines.	4272	2.68	1.29
Interpret results of statistical analyses found in public health studies or reports.	4372	2.68	1.29
Identify the limitations of research results, data sources, or existing practices and programs.	4365	2.67	1.27
Synthesize information from multiple data systems or other sources.	4361	2.66	1.30



## Task Domains by Degree

MPH	Domain	Mean
	Critical Strategic Analysis	2.42
	Collaborating Partnering	2.31
	Ethics	2.27
	Leadership Systems Thinking	2.12
	Diversity Cultural Proficiency	1.99
	Program Planning	1.96
	Communication	1.95
	Management Finance Policy	1.94
	Advocacy	1.82
	Biological Environmental Applications in Public Health	1.69

DrPH	Domain	Mean
	Critical Strategic Analysis	2.90
	Collaborating Partnering	2.54
	Ethics	2.52
	Leadership Systems Thinking	2.43
	Diversity Cultural Proficiency	2.37
	Program Planning	2.37
	Advocacy	2.28
	Communication	2.20
	Management Finance Policy	2.14
	Biological Environmental Applications in Public Health	2.06



## Top Task Ratings by Degree

MPH	Task	Mean
	Collect valid and reliable quantitative or qualitative data.	3.30
	Use information technology for data collection, storage, and retrieval.	3.21
	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	2.94
	Interpret quantitative or qualitative data following current scientific standards.	2.90
	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	2.82
	Identify key stakeholders.	2.81
	Identify the limitations of research results, data sources, or existing practices and programs.	2.74
	Synthesize information from multiple data systems or other sources.	2.72
	Interpret results of statistical analyses found in public health studies or reports.	2.71
	Identify opportunities to partner with health and public health professionals across sectors and related disciplines.	2.71

DrPH	Task	Mean
	Collect valid and reliable quantitative or qualitative data.	3.56
	Interpret quantitative or qualitative data following current scientific standards.	3.43
	Interpret results of statistical analyses found in public health studies or reports.	3.35
	Apply descriptive techniques commonly used to summarize public data.	3.32
	Use information technology for data collection, storage, and retrieval.	3.30
	Identify the limitations of research results, data sources, or existing practices and programs.	3.22
	Synthesize information from multiple data systems or other sources.	3.15
	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	3.11
	Describe a health problem in terms of magnitude, person, time, and place.	3.09
	Describe the characteristics of a population-based health problem.	3.06



## Task Domains by Gender

Female	Domain	Mean
	Critical Strategic Analysis	2.33
	Collaborating Partnering	2.24
	Ethics	2.20
	Leadership Systems Thinking	2.07
	Diversity Cultural Proficiency	1.97
	Communication	1.93
	Program Planning	1.92
	Management Finance Policy	1.89
	Advocacy	1.73
	Biological Environmental Applications in Public Health	1.61

Male	Domain	Mean
	Critical Strategic Analysis	2.54
	Ethics	2.49
	Collaborating Partnering	2.40
	Leadership Systems Thinking	2.27
	Management Finance Policy	2.14
	Advocacy	2.12
	Biological Environmental Applications in Public Health	2.10
	Program Planning	2.07
	Communication	2.02
	Diversity Cultural Proficiency	2.01

# Task Ratings by Gender

Female	Task	Mean
	Collect valid and reliable quantitative or qualitative data.	3.24
	Use information technology for data collection, storage, and retrieval.	3.16
	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	2.91
	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	2.8
	Interpret quantitative or qualitative data following current scientific standards.	2.78
	Identify key stakeholders.	2.74
	Identify opportunities to partner with health and public health professionals across sectors and related disciplines.	2.68
	Identify the limitations of research results, data sources, or existing practices and programs.	2.65
	Synthesize information from multiple data systems or other sources.	2.6
	Interpret results of statistical analyses found in public health studies or reports.	2.6

Male	Task	Mean
	Collect valid and reliable quantitative or qualitative data.	3.33
	Use information technology for data collection, storage, and retrieval.	3.23
	Interpret quantitative or qualitative data following current scientific standards.	3.04
	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	2.95
	Interpret results of statistical analyses found in public health studies or reports.	2.91
	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	2.88
	Apply descriptive techniques commonly used to summarize public data.	2.85
	Synthesize information from multiple data systems or other sources.	2.81
	Identify key stakeholders.	2.81
	Identify the limitations of research results, data sources, or existing practices and programs.	2.74



# Task Domains by Employment Setting

Academic	Business or Corporation	Clinic or Hospital	Government	Non profit
Critical Strategic Analysis	Critical Strategic Analysis	Ethics	Critical Strategic Analysis	Collaborating Partnering
Ethics	Ethics	Critical Strategic Analysis	Collaborating Partnering	Leadership Systems Thinking
Collaborating Partnering	Collaborating Partnering	Collaborating Partnering	Ethics	Critical Strategic Analysis
Diversity Cultural Proficiency	Leadership Systems Thinking	Leadership Systems Thinking	Leadership Systems Thinking	Diversity Cultural Proficiency
Leadership Systems Thinking	Management Finance Policy	Diversity Cultural Proficiency	Communication	Program Planning
Program Planning	Program Planning	Communication	Management Finance Policy	Management Finance Policy
Communication	Communication	Management Finance Policy	Biological Environmental Applications in Public Health	Communication
Management Finance Policy	Advocacy	Program Planning	Diversity Cultural Proficiency	Ethics
Advocacy	Diversity Cultural Proficiency	Biological Environmental Applications in Public Health	Advocacy	Advocacy
Biological Environmental Applications in Public Health	Biological Environmental Applications in Public Health	Advocacy	Program Planning	Biological Environmental Applications in Public Health





Academic	Business or Corporation	Clinic or Hospital	Government	Non Profit
Collect valid and reliable quantitative or qualitative data.	Use information technology for data collection, storage, and retrieval.	Use information technology for data collection, storage, and retrieval.	Collect valid and reliable quantitative or qualitative data.	Collect valid and reliable quantitative or qualitative data.
Use information technology for data collection, storage, and retrieval.	Collect valid and reliable quantitative or qualitative data.	Collect valid and reliable quantitative or qualitative data.	Use information technology for data collection, storage, and retrieval.	Identify key stakeholders.
Interpret quantitative or qualitative data following current scientific standards.	Interpret quantitative or qualitative data following current scientific standards.	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	Identify key stakeholders.	Use information technology for data collection, storage, and retrieval.
Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Synthesize information from multiple data systems or other sources.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Identify opportunities to partner with health and public health professionals across sectors and related disciplines.
Identify the limitations of research results, data sources, or existing practices and programs.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Apply team building skills.	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	Develop collaborative and partnership agreements with various stakeholders on specific projects.
Interpret results of statistical analyses found in public health studies or reports.	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	Interpret quantitative or qualitative data following current scientific standards.	Identify opportunities to partner with health and public health professionals across sectors and related disciplines.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.
Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	Identify the limitations of research results, data sources, or existing practices and programs.	Apply conflict management skills.	Interpret quantitative or qualitative data following current scientific standards.	Communicate an organization's mission, goals, values, and shared vision to stakeholders.
Apply descriptive techniques commonly used to summarize public data.	Identify key stakeholders.	Interpret results of statistical analyses found in public health studies or reports.	Synthesize information from multiple data systems or other sources.	Identify challenges to program implementation.
Use statistical packages or software to analyze data.	Apply descriptive techniques commonly used to summarize public data.	Communicate with other health professionals in a responsive and responsible manner that supports a team approach to maintaining health of individuals and populations.	Apply descriptive techniques commonly used to summarize public data.	Develop strategies for collaboration and partnership among diverse organizations to achieve common public health goals.
Illustrate how gender, race, ethnicity, and other evolving demographics affect the health of a population.	Apply team building skills.	Identify the limitations of research results, data sources, or existing practices and programs.	Interpret results of statistical analyses found in public health studies or reports.	Implement strategies for collaboration and partnership among diverse organizations to achieve common public health goals.

# Task Domains by Employment Level

Clinical	Consultant	Entry	Mid	Upper
Ethics	Critical Strategic Analysis	Critical Strategic Analysis	Critical Strategic Analysis	Collaborating Partnering
Biological Environmental Applications in Public Health	Collaborating Partnering	Ethics	Collaborating Partnering	Critical Strategic Analysis
Critical Strategic Analysis	Leadership Systems Thinking	Collaborating Partnering	Ethics	Leadership Systems Thinking
Diversity Cultural Proficiency	Ethics	Diversity Cultural Proficiency	Leadership Systems Thinking	Ethics
Communication	Diversity Cultural Proficiency	Leadership Systems Thinking	Program Planning	Management Finance Policy
Leadership Systems Thinking	Program Planning	Communication	Management Finance Policy	Program Planning
Collaborating Partnering	Communication	Program Planning	Diversity Cultural Proficiency	Advocacy
Advocacy	Management Finance Policy	Biological Environmental Applications in Public Health	Communication	Communication
Program Planning	Advocacy	Advocacy	Advocacy	Diversity Cultural Proficiency
Management Finance Policy	Biological Environmental Applications in Public Health	Management Finance Policy	Biological Environmental Applications in Public Health	Biological Environmental Applications in Public Health



Clinical	Consultant	Entry	Mid	Upper
Collect valid and reliable quantitative or qualitative data.	Collect valid and reliable quantitative or qualitative data.	Collect valid and reliable quantitative or qualitative data.	Collect valid and reliable quantitative or qualitative data.	Collect valid and reliable quantitative or qualitative data.
Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	Use information technology for data collection, storage, and retrieval.	Use information technology for data collection, storage, and retrieval.	Use information technology for data collection, storage, and retrieval.	Use information technology for data collection, storage, and retrieval.
Use information technology for data collection, storage, and retrieval.	Identify key stakeholders.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Identify key stakeholders.
Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Interpret quantitative or qualitative data following current scientific standards.	Interpret quantitative or qualitative data following current scientific standards.	Interpret quantitative or qualitative data following current scientific standards.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.
Identify the laws and regulations that govern the scope of one's legal authority.	Synthesize information from multiple data systems or other sources.	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).	Identify opportunities to partner with health and public health professionals across sectors and related disciplines.
Communicate with other health professionals in a responsive and responsible manner that supports a team approach to maintaining health of individuals and populations.	Identify opportunities to partner with health and public health professionals across sectors and related disciplines.	Identify the limitations of research results, data sources, or existing practices and programs.	Identify key stakeholders.	Identify regulations regarding privacy, security, confidentiality (e.g., personal health information, etc.).
Identify communication gaps.	Identify the limitations of research results, data sources, or existing practices and programs.	Interpret results of statistical analyses found in public health studies or reports.	Synthesize information from multiple data systems or other sources.	Interpret quantitative or qualitative data following current scientific standards.
Apply conflict management skills.	Ensure the application of ethical principles in the collection, maintenance, use, and dissemination of data and information.	Apply descriptive techniques commonly used to summarize public data.	Identify the limitations of research results, data sources, or existing practices and programs.	Give constructive feedback to others about their performance on the team.
Communicate with colleagues, patients, families, or communities about health disparities and health care disparities.	Interpret results of statistical analyses found in public health studies or reports.	Synthesize information from multiple data systems or other sources.	Identify opportunities to partner with health and public health professionals across sectors and related disciplines.	Engage key stakeholders in problem solving and policy development.
Apply team building skills.	Develop collaborative and partnership agreements with various stakeholders on specific projects.	Identify key stakeholders.	Apply descriptive techniques commonly used to summarize public data.	Communicate an organization's mission, goals, values, and shared vision to stakeholders.

# Summary Points



## Next Steps

- A more refined analysis of the tasks within each category
- A more refined analysis with all of the possible correlates of the ratings of task importance
- An analysis of the relationship of the task domains and the tasks to our current outline of topics for the CPH examination
- Distribution of the findings from our analyses to the profession and the general public



## **Job Task Analysis Areas**

1. Critical / Strategic Analysis
2. Biological and Environmental Applications in Public Health
3. Leadership & Systems Thinking
4. Management, Finance & Policy
5. Program Planning
6. Collaborating and Partnering
7. Communication
8. Advocacy
9. Ethics
10. Diversity and Cultural Proficiency



## **CPH Content Outline**

1. Epidemiology
2. Biostatistics
3. Health Policy Management
4. Environmental Health
5. Behavioral Social Sciences
6. Program Planning
7. Informatics and Communications
8. Diversity and Inclusion
9. Public Health Biology
10. Systems Thinking
11. Leadership



## Questions?

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