

Get, Set, Ready?

*A variation analysis of the public health
leadership workforce*

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Macro trends...Public Health Practice

The future of public health practice will be...constrained by certain forces of change

Forces of change	Example issues	Using EBPH or A-EBP to address forces of change	Sample practice-based research questions (23)
Patient Protection and Affordable Care Act	The requirement of insurance carriers to provide first-dollar coverage for primary and secondary preventive services	EBPH: primary and secondary screening as recommended (level A and B) by the US Preventive Services Task Force (98)	How do funding formulas, payment methods, policy decisions, and community health needs and risks influence the levels of investment made in public health strategies at local, state, and national levels?
Accreditation	The internal focus on quality improvement and performance management	A-EBP: in-service training for quality improvement or evidence-based decision making (11)	How do public health agency accreditation programs influence the effectiveness, efficiency, and outcomes of public health strategies delivered at local, state, and national levels?
Climate change	Emergency risk communication strategies with a special focus on outreach to vulnerable populations	EBPH: health communication and social marketing; health communication campaigns that include mass media and health-related product distribution; community-based interventions implemented in combination to increase vaccinations in targeted populations (22)	How do the content, quality, and timeliness of public health surveillance systems and informatics capabilities influence the effectiveness, efficiency, and outcomes of public health strategies delivered at local, state, and national levels?
Health in all policies	Policy decisions made outside the health sector impact the determinants of health	EBPH: Smoke-free policies in the workplace; promotion of health equity in housing programs and policies (22) A-EBP: build and/or enhance	Which conditions and strategies facilitate productive interorganizational relationships and patterns of interaction among organizations that contribute to

Leaders influence delivery of services

Leader characteristics may influence LHD engagement in reducing health disparities.

Variable (N = 2247)	n (%)	Mean ± SD	Mean No. Types of Health Disparities Activities Used (0-8), Mean ± SD	P ^a
Level 1: local health department				
Context of LHD Jurisdiction				
% Black		7.8 ± 13.3		
% Hispanic		6.5 ± 10.7		
RUCA				
Urban	946 (42.1)		3.14 ± 2.55	.044
Suburban/micropolitan	439 (19.6)		3.08 ± 2.34	
Rural/small town	860 (38.3)		2.86 ± 2.18	
Characteristics of LHD top executive				
Race				
White	2039 (90.7)		2.98 ± 2.35	.000
Nonwhite	152 (6.8)		3.84 ± 2.59	
Highest level of education				
Associate	137 (6.6)		2.19 ± 2.12	.000
Bachelor	620 (29.9)		2.57 ± 2.23	
Master	900 (43.4)		3.37 ± 2.31	
Doctoral	419 (20.2)		3.49 ± 2.55	
Profession				
Nonclinician	1295 (57.6)		2.90 ± 2.36	.000
Clinician	781 (34.8)		3.37 ± 2.36	
As an LHD top executive				
Prior position held	460 (21.0)		3.11 ± 2.55	.604
First position	1728 (79.0)		3.04 ± 2.33	
Tenure as the LHD's top executive, y				
<5	912 (41.7)		3.29 ± 2.44	.001
5 through 9	486 (22.2)		2.99 ± 2.31	
10 through 14	312 (14.3)		2.88 ± 2.31	
15 through 19	206 (9.4)		2.75 ± 2.18	
≥20	269 (12.3)		2.73 ± 2.41	
Characteristics of LHD				
Expenditure per capita, \$				
BOH		63.5 ± 347.3		.010
No	438 (19.5)		3.28 ± 2.35	
Yes	1724 (76.7)		2.95 ± 2.38	
Community health assessment in last 3 y				
No	804 (36.3)		2.03 ± 2.07	.000
Yes	1413 (63.7)		3.59 ± 2.34	
Level 2: States				
State	50		3.0 ± 2.37	

Abbreviations: BOH, Board of Health; LHDs, Local Health Departments; RUCA, Rural urban commuting area codes.
^aFrom analysis of variance or *t* test.

Yang, Youngran; PhD, MPH; Bekemeier, Betty; PhD, MPH *Using More Activities to Address Health Disparities: Local Health Departments and Their "Top Executives"*. Journal of Public Health Management & Practice. 19(2):153-161, March/April 2013.

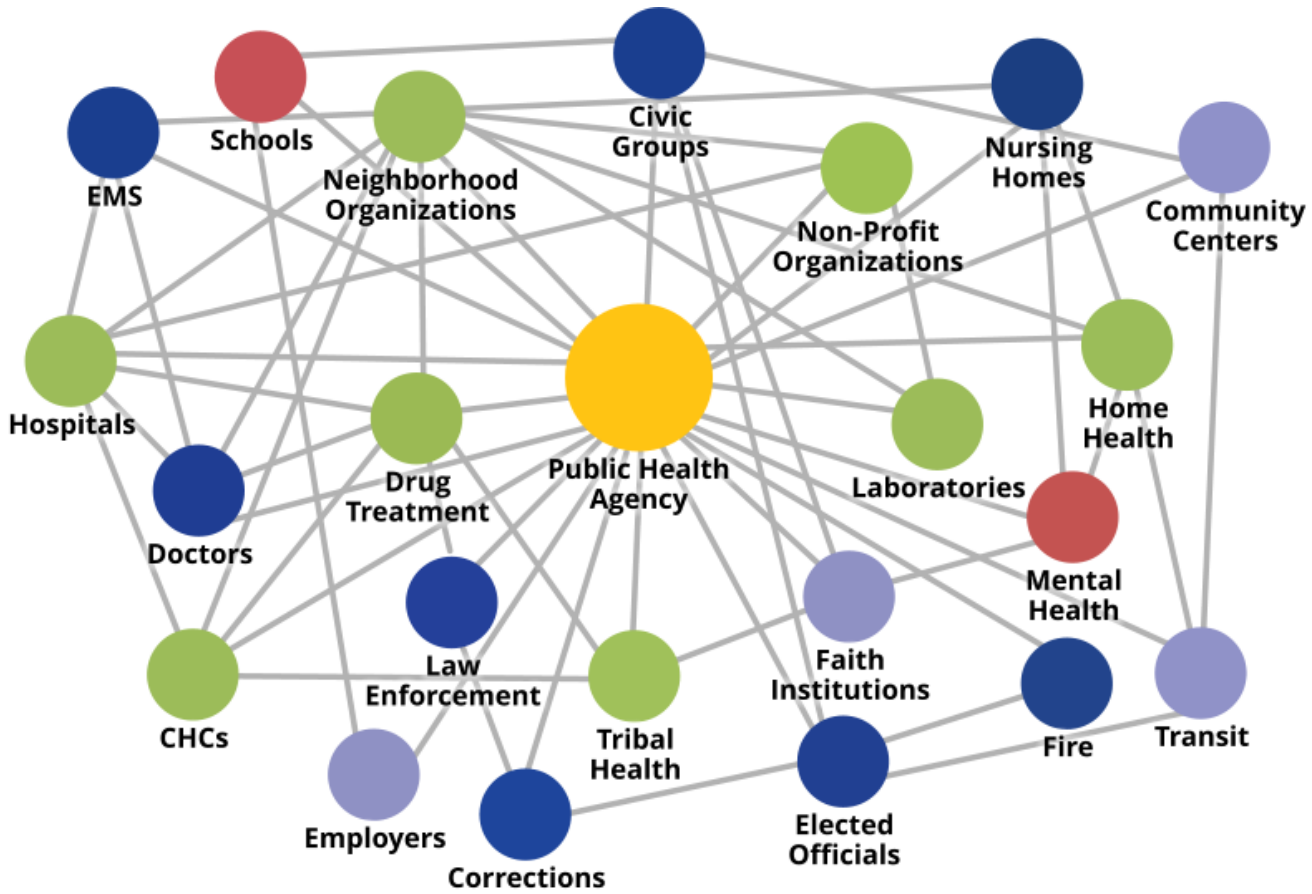
Leaders influence performance of health agencies

Leader characteristics may influence agency performance and subsequently ability to delivery public health services.

Characteristics	Percent Change in expenditure between 2008 – 2010
Leader characteristics:	
Education status:	
Physician degree	1.75 (1.06 – 2.87) *
Public health degree	1.26 (0.83 – 1.93)
Other graduate degree	0.75 (0.53-1.07)
Other degrees	1.1 (0.78- 1.54)
Clinician degree	-
Tenure:	
2 – 7 years	1.46 (1.03 – 2.07)*
7– 13 years	1.41 (0.95 – 2.10)
>13 years	1.27 (0.85 – 1.90)
<2 years	-
LHD characteristics:	
LHD size:	
Small size (0 – 49,999)	1.33 (0.99 – 1.77)*
Large-size (500,000 – 1,000,000+)	0.73 (0.43 – 1.24)
Med-size (50,000 – 499,999)	-
Reporting Classification:	
Regional office	0.16 (0.03 – 0.62)**
Neither county/regional	0.04 (0.01 – 0.13) ***
County office	-
Roll over Reserve Fund:	
Do not have a reserve fund	0.81 (0.64 – 1.03)
Do not know	0.38 (0.21 – 0.71)**
Have a reserve fund	-

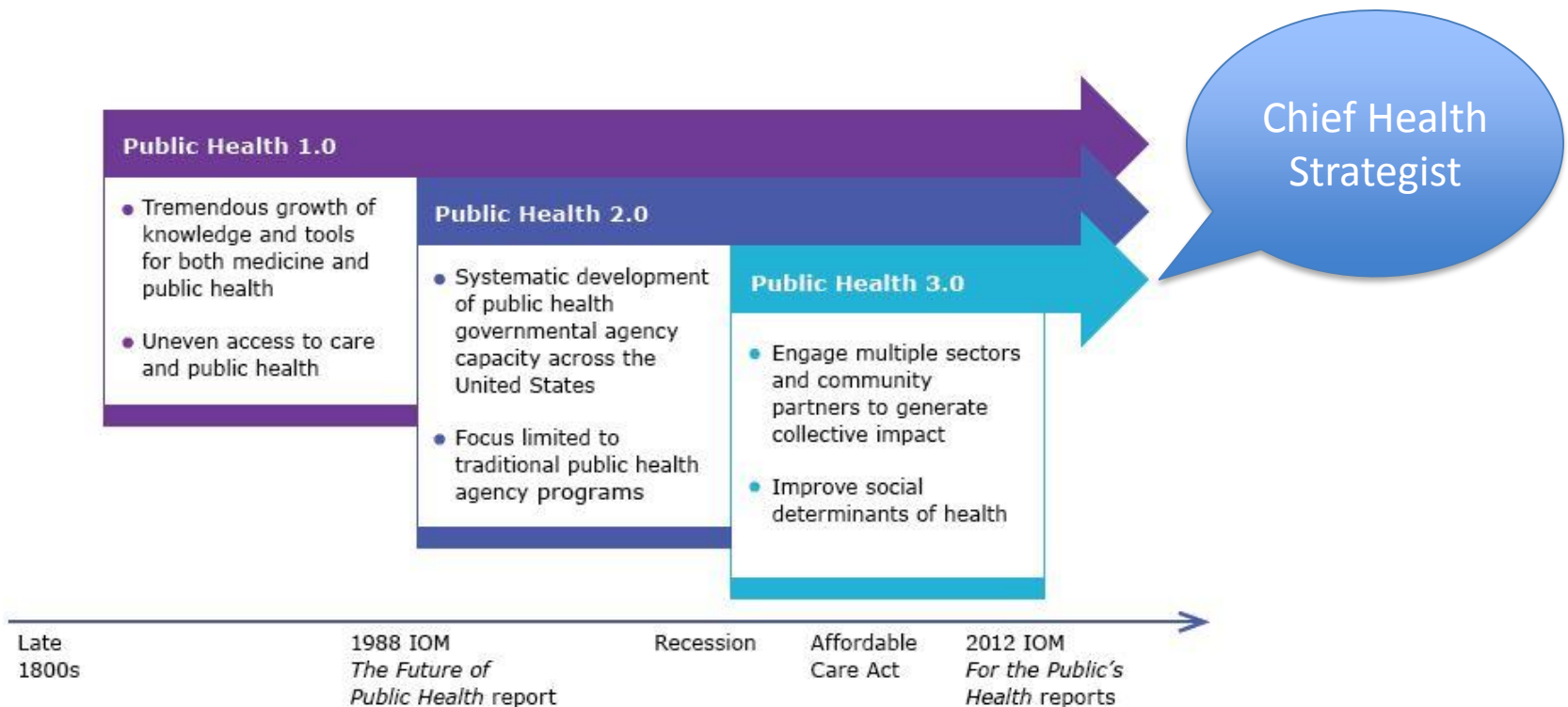
Jadhav, E.D. Holsinger, J.W., Mays, G.P., Fardo, D.P. *Should they stay or should they go.* Journal of Public Health Management & Practice, 2014.

Leadership matters...



<https://www.cdc.gov/publichealthgateway/publichealthservices/essentialhealthservices.html>

Public Health 3.0 agrees...



DeSalvo KB, Wang YC, Harris A, Auerbach J, Koo D, O'Carroll P. Public Health 3.0: A Call to Action for Public Health to Meet the Challenges of the 21st Century. *Prev Chronic Dis* 2017;14:170017.

Recommendations of Public Health 3.0

Community
Health Strategist

Enhance
Funding

Relevant
Data

Strategic
Partnerships

Accreditation



<https://www.healthypeople.gov/sites/default/files/Public-Health-3.0-White-Paper.pdf>

What does it mean for leadership workforce

Increased demand for public health workforce skilled in areas currently underrepresented in governmental agencies.¹

Increased need for diverse workforce that reflects the population HDs serve.²

Decrease gaps between foundational and discipline specific competencies.³

1. Hunter EL. Rebooting our boots on the ground. J Public Health Manag Pract. 2015;21(suppl 6):S1–S2.

2. Jaris, P.E., Sellers, K. A Strong Public Health Workforce for Today and Tomorrow. J Public Health Manag Pract. 2015;21(suppl 6):S3–S4.

3. Kaufman, N.J., Castrucci, B.C., Pearsol, J, et.al. Thinking Beyond the Silos: Emerging Priorities in Workforce Development for State and Local Government Public Health Agencies. J Public Health Manag Pract. 2014; 20(6): pg 557-565

Research objective

- Characterize the nature of variation in use of foundational competencies by job category
- Identify variation in openness to change by job category
 - Identify variation in grit by job category

Why variation in use of competencies...

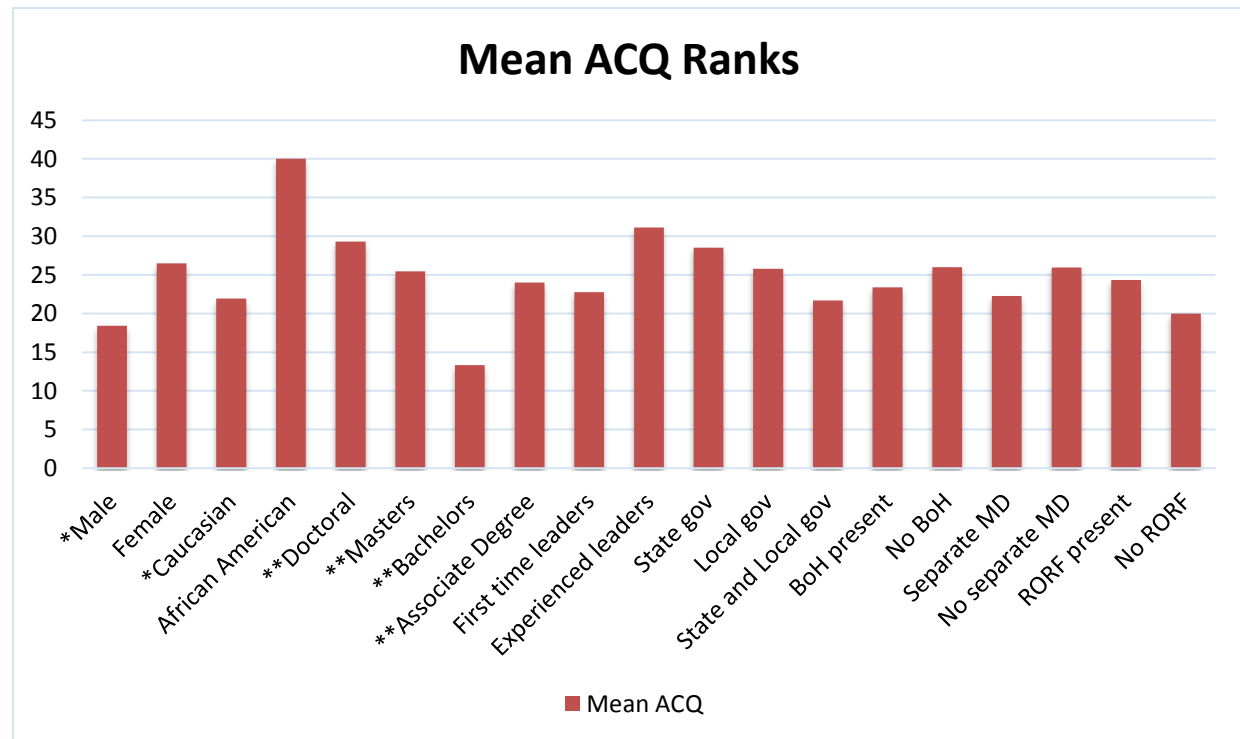
Distinct underlying relationships between competencies by job category.



Jadhav, Emmanuel D.; Holsinger, James W.; and Fardo, David W., Leadership for Public Health 3.0: A Preliminary Assessment of Competencies for Local Health Department Leaders (2017). *Front Public Health*. 2017; 5: 272.

Why openness to change?

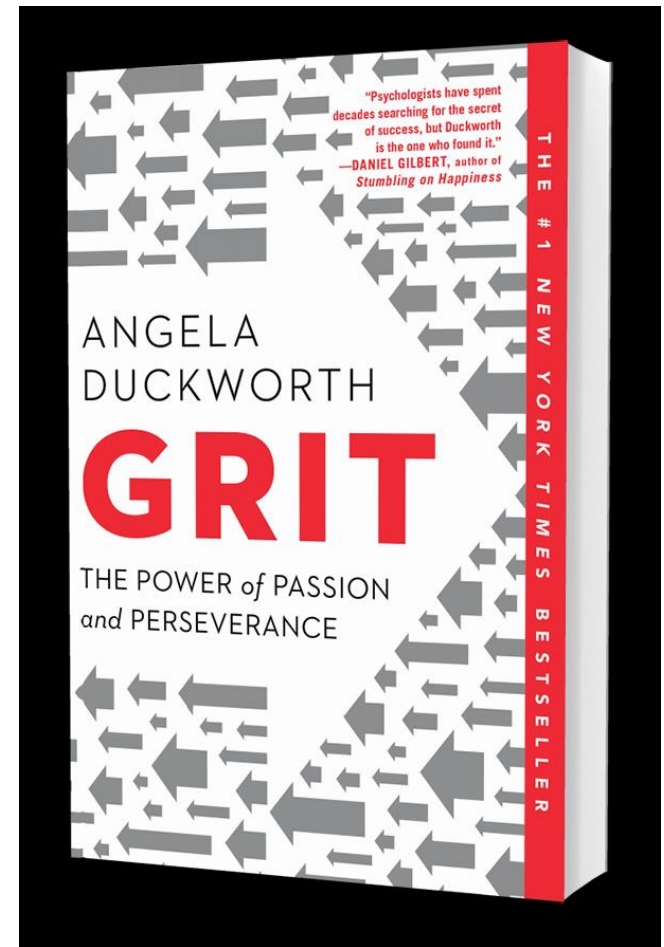
Predictors of openness to change...include gender, race and highest level of education achieved.



Jadhav, Emmanuel D.; Holsinger, James W.; and Fardo, David W., "Openness to Change: Experiential and Demographic Components of Change in Local Health Department Leaders" (2015). *Front Public Health*. 2015; 3: 209.

Why grit?

“It is a combination of passion and perseverance...”



<https://angeladuckworth.com/grit-book/>

Methods

Study Design:

- Cross sectional study design
- Descriptive and non-parametric tests of ANOVA

Population Studied:

- LHD professionals serving in leadership capacity
- Response rate: 52%

Instrument

Executive Job categories:

Public Health Workforce Taxonomy

Measure of Competencies:

Foundational competencies of Leadership and Systems Thinking from the 2014 Core Competencies for Public Health Professionals.

Measure of individual attitude towards change:

Hage and Dewar's 5-point scale

Measure of grit:

Angela Duckworth's 8-point scale

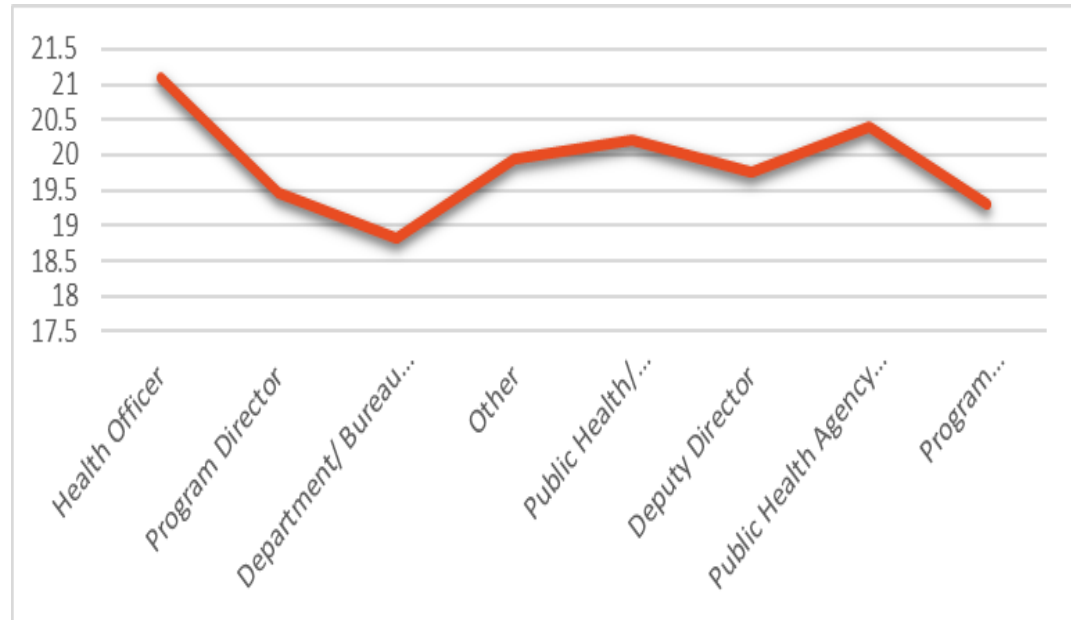
Results



Difference in the *use of foundational competencies* by job category

Results

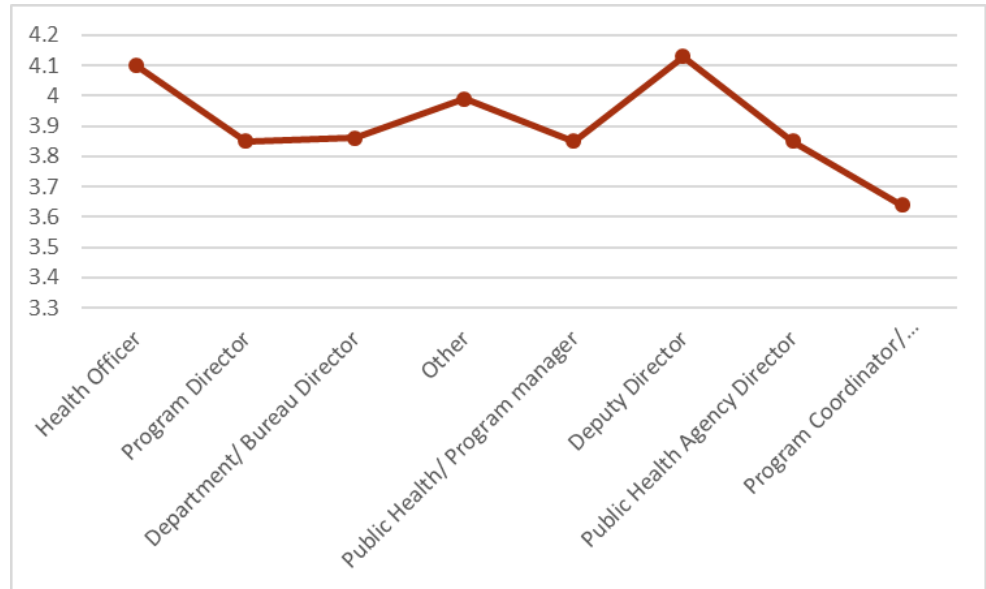
Job Category	N	Mean ACQ Score
Health Officer	23	21.09
Program Director	32	19.47
Department/ Bureau Director	12	18.83
Other	16	19.94
Public Health/ Program manager	15	20.20
Deputy Director	8	19.75
Public Health Agency Director	15	20.40
Program Coordinator/ Administrator	13	19.30



Difference in the distribution of the *openness to change* scores by job category

Results

	N	Mean Grit Score
Health Officer	22	4.10
Program Director	30	3.85
Department/ Bureau Director	12	3.86
Other	14	3.99
Public Health/ Program manager	16	3.85
Deputy Director	8	4.13
Public Health Agency Director	14	3.85
Program Coordinator/ Administrator	12	3.64



Statistically significant difference in the distribution of the *grit* scores by job category

Implications...

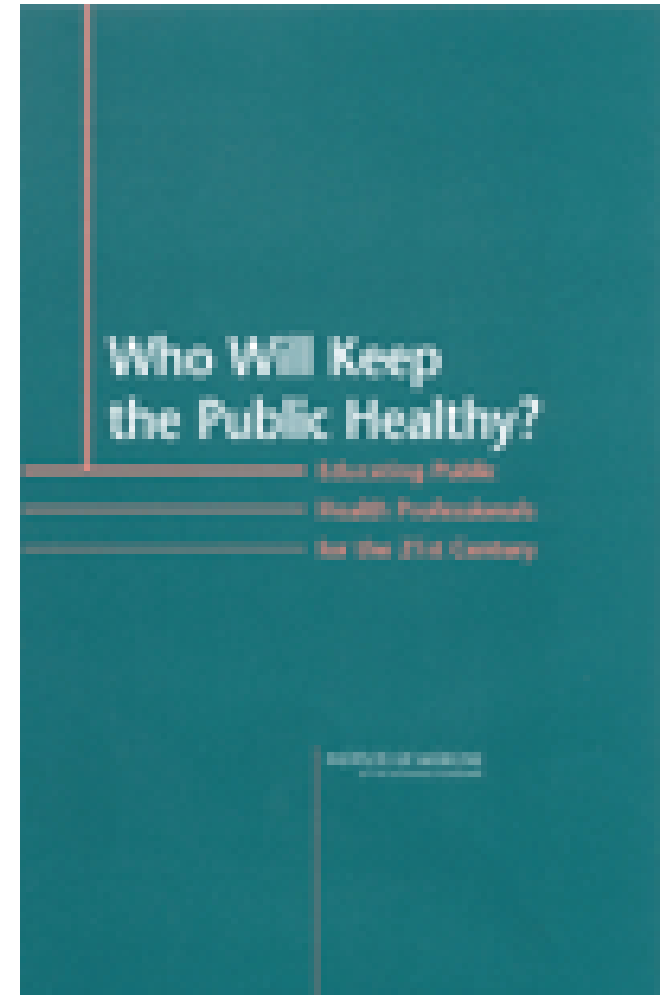
There are distinct variations in competency, openness to change and grit by job category...

- Reinforce training need that reduces gap between foundational and discipline specific competencies.
- Cautious expectations by job category.
- Intentional design of job function and job category.

Moving forward...

'Public health professionals must have the skills and competencies necessary to engage in public health practice at many levels: leadership, management, and supervisory.'

- Customized leadership and management trainings.
- Intentional alignment of Competencies with job category.
- Causal models that explain relationship of leader and LHD attributes on community health outcomes.



Kristine Gebbie, Linda Rosenstock, and Lyla M. Hernandez. Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century. Institute of Medicine, 2003

THANK YOU !

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