

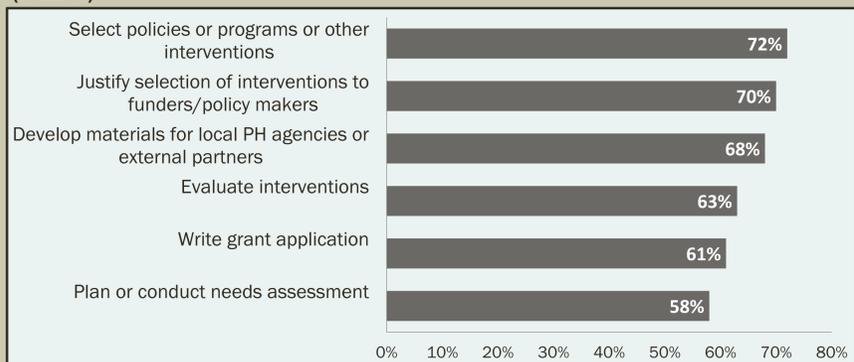
### BACKGROUND

- Utilizing research evidence (RE)- scientific findings from public health research and/or practice- to complete various public health functions is integral to practice evidence-based decision making.
- State health departments and their external partners play key roles in disease prevention and health promotion, though:
  - Little is known about how frequently RE is used to complete various public health programming and policy charges (e.g. conducting needs assessments).
  - Few studies have examined preferred modes of receiving and learning about RE for state health departments and their external partners.

### RESEARCH OBJECTIVES

- Explore frequency of RE use for various key public health processes and identify potential factors associated with frequency of use.
- Examine possible differences and similarities in how state health departments and their partners in disease prevention and health promotion prefer to learn about RE.

**Figure 1. Percent of participants who use RE “often” or “always” to complete each job task (n=1237).\***



\*Actual n for each item varies as those who selected that an item was not applicable to their job were excluded.

### METHODS

- Participants:**
- Jan to Nov 2014 staggered enrollment survey with 12 state health departments and their self-identified external partners in disease prevention and health promotion (n=1237) (Table 1)
  - Survey served as cross-sectional baseline to ongoing group randomized trial with state health departments to support and build capacity for evidence-based processes
- Measurement and Analysis:**
- 6 Likert items measured “how often you use research evidence” to complete 6 different functions (Figure 1)
  - Average score across the six items (score/# of items answered to account for selection of “not applicable”) subdivided into tertiles of low, middle, and high frequency of RE use
  - Participants ranked their top three methods to learn about RE (e.g. academic journals) (Table 2)
  - Descriptive statistics and bivariate associations calculated for participant characteristics, RE methods, and RE frequency of use items
  - Generalized estimating equations (GEE) logit link function was used to estimate adjusted odds of highest frequency of RE use tertile while accounting for clustering by state (all analyses computed with IBM SPSS 20)

**Table 2. Top 5 preferred methods to learn about public health findings in 12 state disease prevention and health promotion networks.**

	State health department staff (n=596)	%	Partners from local health departments (n=147)	%	Partners from community based organizations (n=225)	%	Academic partners (n=107)	%	Partners from healthcare facilities and health plans (n=86)	%
1	Seminars or workshops	59%	Seminars or workshops	50%	Seminars or workshops	45%	Academic journals	69%	Academic journals	65%
2	Academic journals	50%	Email alerts	46%	Academic journals	40%	Seminars or workshops	40%	Seminars or workshops	51%
3	Email alerts	40%	Academic journals	35%	Email alerts	37%	Academic conferences	37%	Email alerts	38%
4	Policy briefs	30%	Newsletters	31%	Policy briefs	30%	Email alerts	29%	Professional associations	37%
5	Professional associations	25%	Professional associations	30%	Newsletters	26%	Professional associations	29%	Academic conferences	27%

\*Other state/local/tribal gov't agencies (n=51), and other agencies (n=23) not included in the above table.

### PRINCIPAL FINDINGS

- The majority of participants reported using RE for the 6 public health functions assessed, but with less frequency for some functions such as planning or conducting needs assessments
- Job position, sex, master’s degree, use of evidence-based decision making, and being evaluated on use of evidence-based decision were associated with high levels of RE use in job tasks.
- Type of agency/organization and program area were not associated with high frequency use of RE
- Partners from healthcare facilities and academic institutions were more likely to prefer academic journals, while those from community based organizations were more likely to prefer stakeholder in-person meetings to learn about RE

**Table 1. Participant characteristics among 12 state health department disease prevention and health promotion networks (n=1237).**

	% or mean
<b>Agency/Organization</b>	
State health department	48%
Local health department	12%
University or academic institution	9%
Healthcare facility or health plan	7%
Community-based organization	18%
Other state/local/tribal government agencies	4%
Other	2%
<b>Program Area</b>	
Communicable diseases	2%
Non-communicable diseases/ chronic diseases	60%
Other non-communicable diseases	13%
Cross-cutting	11%
Other areas, or combination	14%
<b>Job type</b>	
Program manager/coordinator	47%
Upper management	19%
Specialist	30%
Other	5%
<b>Years at agency (mean)</b>	8
<b>Years in position (mean)</b>	6
<b>Years in public health (mean)</b>	10
<b>Female</b>	80%
<b>At least master’s degree</b>	65%
<b>I use evidence-based decision making (strongly agree/agree)</b>	69%
<b>My performance is partially evaluated on how well I use EBDM in my work (strongly agree/agree)</b>	59%

**Table 3. Adjusted\* odds ratios (AORs) for calculated highest frequency of research evidence use tertile.**

	AORs	95% CIs
<b>Job position</b>		
Program manager/coordinator	---	---
Upper management/ leadership	1.44**	1.22 - 1.85
Specialist (e.g. health educator, nutritionist, etc.)	0.75**	0.62 - 0.92
Other	1.39	0.74 - 2.58
<b>Female</b>	1.53***	1.25 - 1.87
<b>At least master’s degree</b>	1.77***	1.44 - 2.17
<b>I use EBDM (strongly agree/agree)</b>	2.48***	1.95 - 3.16
<b>My performance is partially evaluated on how well I use EBDM in my work (strongly agree/agree)</b>	1.80***	1.46 - 2.22

\*Generalized Estimating Equation (GEE) logit link function empirical estimates, independent correlation matrix, Wald X<sup>2</sup> 95% confidence Intervals (CIs), clustering by state. \*\*<.01, \*\*\*<.001

### CONCLUSIONS

- By definition, evidence-based decision making involves using best available research to inform various processes in public health practice. This suggests that those who practice EBDM may use RE more frequently (2.5 times more times as likely in the current study).
- Those charged with public health programming (program managers and public health specialists) may be using RE less frequently than upper management.
- Top methods to learn about RE and public health findings varied among types of agencies/organizations, suggesting a need to tailor RE delivery formats to partners within disease prevention and health promotion networks.
- More work is needed to identify and address potential barriers to applying the current research base into these job functions among the different practice settings in public health.
- Limitations to this study include that it is not nationally representative and survey items were self-report.

### IMPLICATIONS FOR PUBLIC HEALTH PRACTICE AND POLICY

- Public health research and practice findings can be disseminated in a form most preferred by the audience intended, which often varies for disease prevention networks where key players come from several organizations.
- Incorporating evidence-based decision making processes into performance evaluations may boost the frequency of RE use for program managers and other frontline public health staff.

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