Research on Effectiveness of Alert Communications between Public Health & Health Care Providers for Emergency Preparedness & Response: The REACH Project

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Cross Border Workshop
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Northwest Center for Public Health Practice
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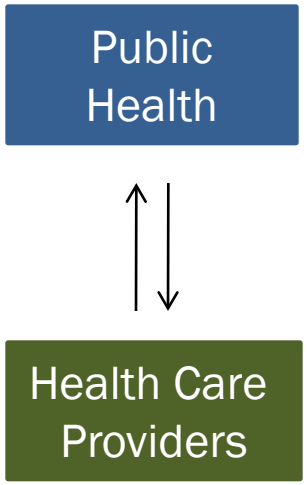
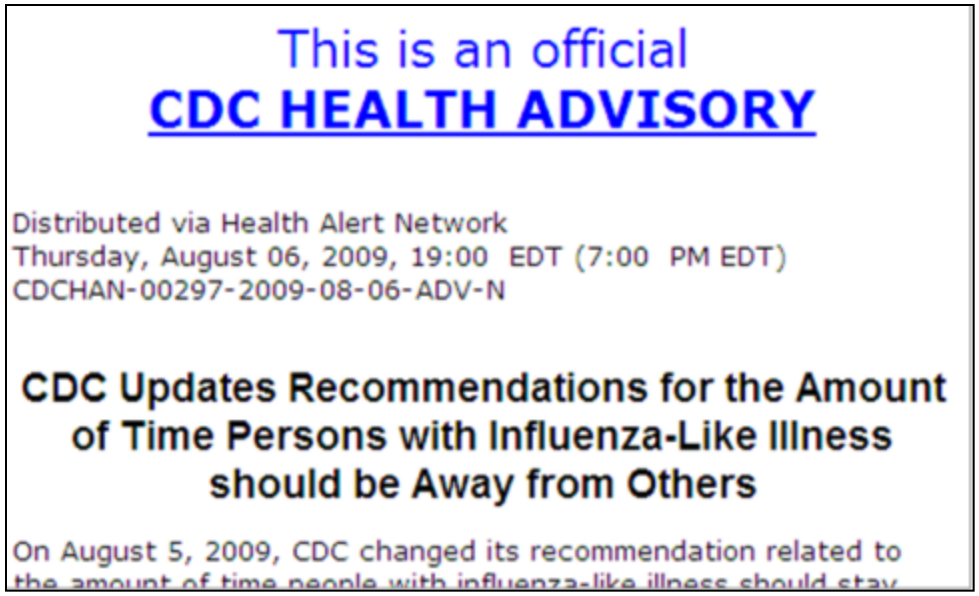
Study Rationale

- Effective, timely response to a public health emergency requires public health agencies to communicate with health care providers

- No study has assessed the effectiveness of different communication methods used during public health emergencies



Public Health Messages are Sent, but…



This is an official

CDC HEALTH ADVISORY

Distributed via Health Alert Network
Thursday, August 06, 2009, 19:00 EDT (7:00 PM EDT)
CDCHAN-00297-2009-08-06-ADV-N

CDC Updates Recommendations for the Amount of Time Persons with Influenza-Like Illness should be Away from Others

On August 5, 2009, CDC changed its recommendation related to the amount of time people with influenza-like illness should stay

Does the message reach the intended recipient?

Does the provider remember receiving the message?

Does the provider read the message?

Research Questions

Primary Research Question:

Which communication methods are most effective between public health agencies and health care providers?

Secondary Research Questions:

- Are there differences in communication effectiveness by provider type, practice type or among rural vs. urban providers?
- What is the best way to communicate training vs. time sensitive alerts or advisories?
- Can too many messages impact the receipt and/or recall of specific message content (alert fatigue)?

Study Design

- **Single-blind randomized controlled trial (RCT)**
- **Four randomization groups**
  - SMS
  - Email
  - Fax
  - Control (no alert)
- **Project duration**
  - 5 years total
  - 12-15 months at 3 designated study sites (King County, WA; State of MT; Spokane County, WA)
- **Study Subjects**
  - MDs
  - ARNPs
  - Pharmacists
  - Physician Assistants
  - Veterinarians
- **Exposure**
  - Communication method (SMS, Email, Fax, Control)

Intervention Assessment

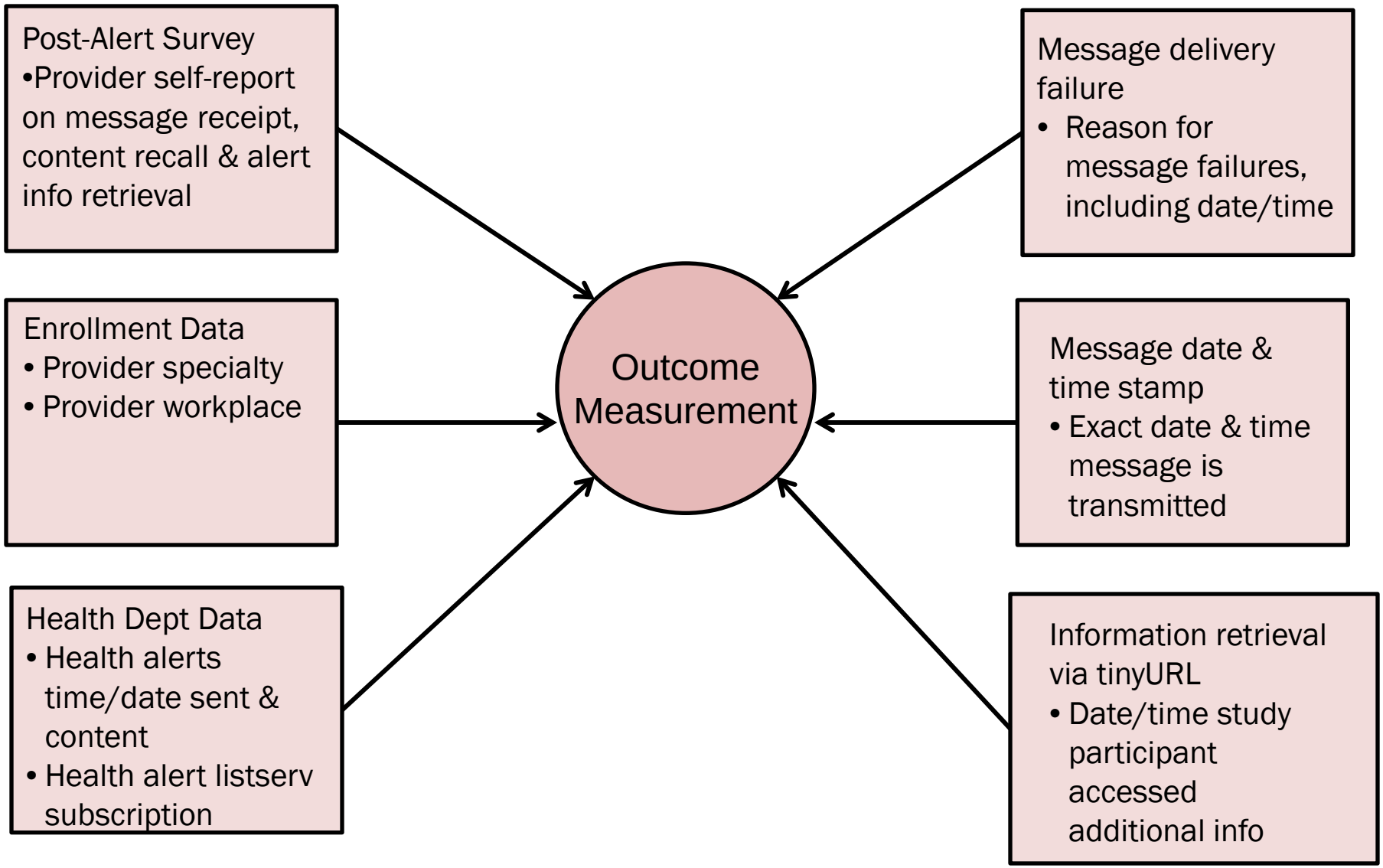
Interview Response Rates

King County	Interview #	Response rate*	Cooperation rate$
	1	87.92%	99.6%
	2	83.01%	99.1%
	3	81.13%	98.9%
	4	79.43%	99.8%
	5	76.98%	99.3%
	6	76.98%	98.6%
MT	1	91.67%	100%
	2	90.83%	100%
	3	90.83%	98.6%
	4	87.5%	100%

* (# completed interviews/# providers enrolled)

$ (completed + partially completed interviews)/[(completed + partially completed interviews) + refusals]

Data Sources & Analysis Plan



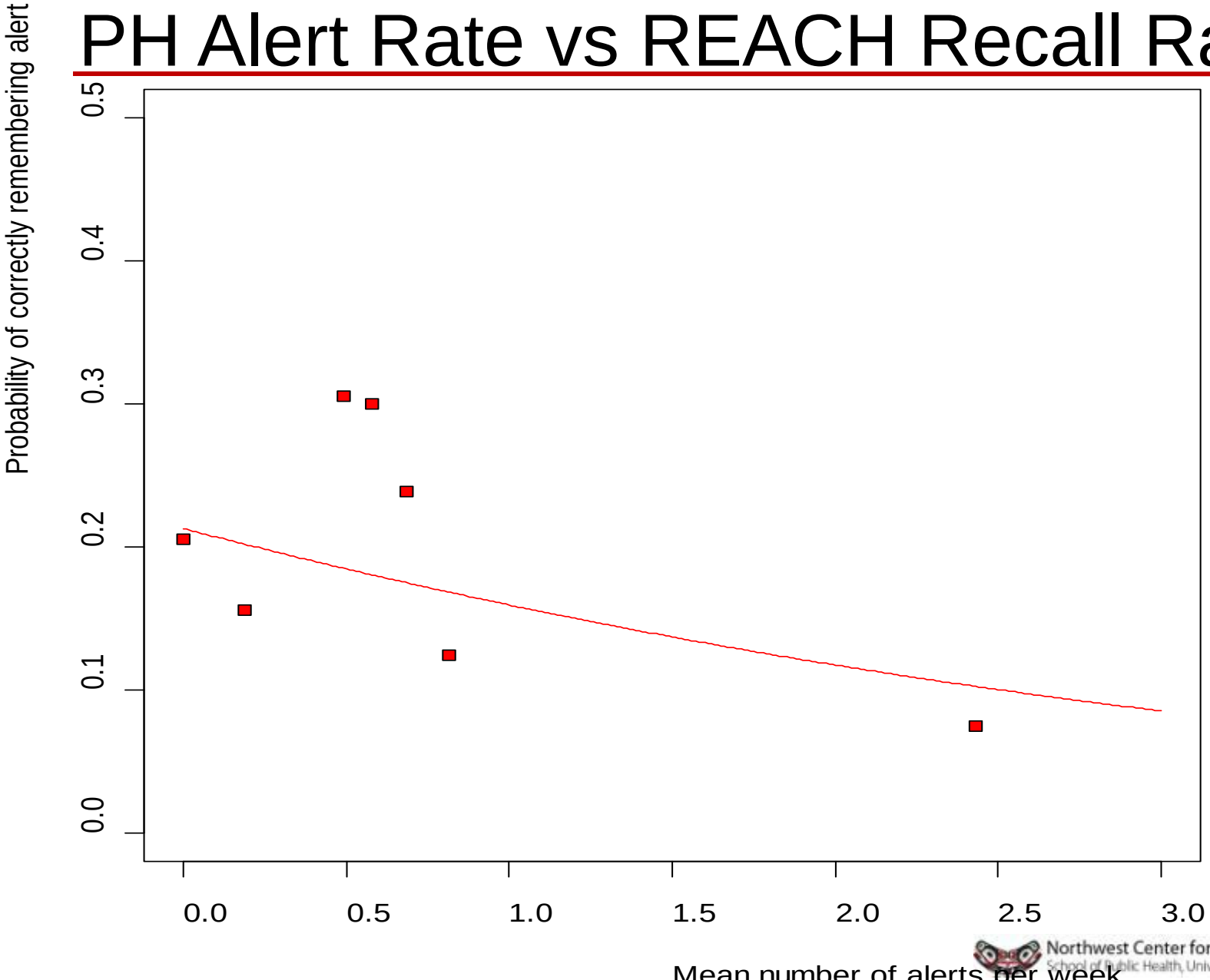
Alert Fatigue

- Triggered by study overlap with H1N1 pandemic
- Elevated number of health alerts from public health agencies to providers
- What is provider's perception of alert volume?
- What is the impact of alert fatigue on message recall?

Number of PH Alerts sent during each REACH Message Timeframe

REACH Study Alert date	Time period	Total # of other alerts sent in King County
10/26/09	10/1/2009 - 11/14/2009	81
3/17/10	2/1/2010 - 3/31/2010	28
6/16/10	5/1/2010 - 6/20/2010	12
7/22/10	7/1/2010 - 8/6/2010	6
9/29/2010	9/1/2010 - 10/20/2010	28
1/27/2011	1/1 /2011 - 2/17/2011	21

PH Alert Rate vs REACH Recall Rates



Study Impact

- REACH Trial:
  - Evidence-based research that will identify the effectiveness of communication systems to improve emergency preparedness & response.

- REACH messaging approach:
  - Food Safety
  - Immunization
  - Healthcare-associated infections
  - Nutrition, Physical Activity & Obesity

Thank you!

Questions?

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