

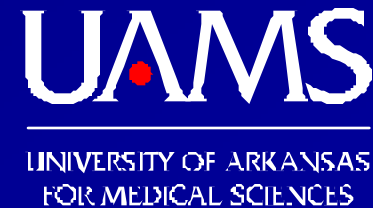
Training Nurses to Deliver Evidence-Based Brief Interventions for Tobacco Use and Dependence

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Background

- Tobacco use is the leading cause of preventable death and disease in the U.S.
- Cessation has immediate and major health benefits.
- Brief interventions by healthcare providers are effective when repeated consistently.
- Pharmacotherapy and intensive tobacco treatment are most effective.

Public Health Service (PHS) *Clinical Practice Guideline for the Treatment of Tobacco Use and Dependence*

- Published in 2000
- Evidence-based
- Recommends an office team approach
 - Implemented in busy clinics
 - Minimal demands on healthcare providers
 - Increases quit rates
 - Cost-effective
 - Routine care

5 A's

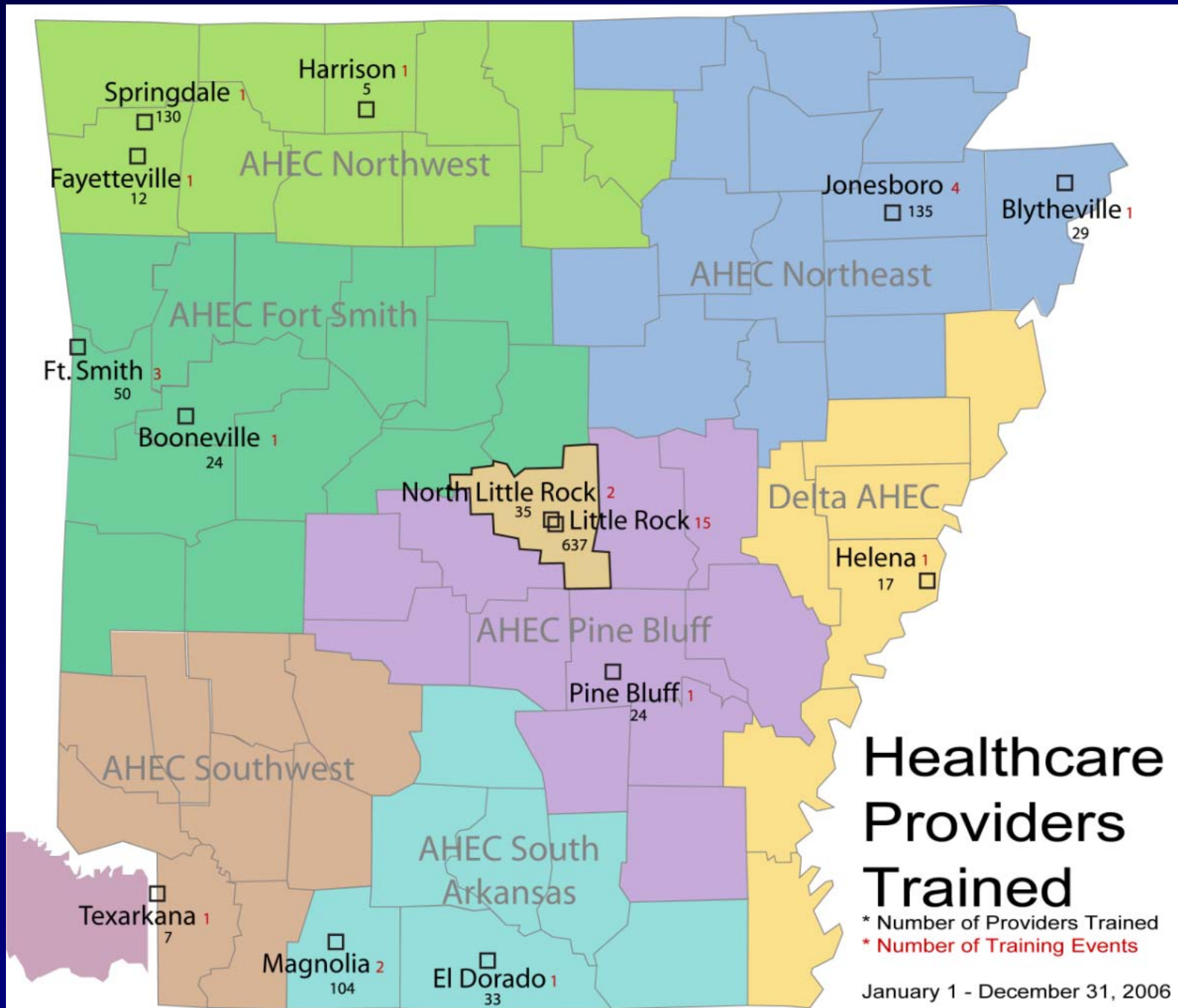
- **Ask** about tobacco use
- **Advise** to quit
- **Assess** willingness to make quit attempt
- **Assist** in quit attempt; medications
- **Arrange** for follow-up

Nurses

- Well-positioned to deliver tobacco cessation intervention
- Poor at implementation of the guidelines
- Barriers
 - Lack of knowledge about the guideline
 - Lack awareness
 - Poor self-efficacy
 - Lack of positive outcome expectancies

Methods: Participant Data

- De-identified data
- RNs and APNs with complete pre-and post-tests
- January, 2006 – January, 2007
- $n = 192$



Healthcare Providers Trained

* Number of Providers Trained
 * Number of Training Events

January 1 - December 31, 2006

Intervention

Training addressed:

- PHS Guideline
- Providers':
 - Motivation
 - Knowledge
 - Self-efficacy
 - Perceived importance
 - Perceived effectiveness
 - Perceived importance of barriers
 - Perceived Preparedness
- State-funded tobacco cessation services

Procedure

Pre-test immediately prior to each training



One-hour outreach educational training



Post-test immediately after each training

Instrument

- Pre-test assessment of implementation of the 5A's
- Pre- and post-test assessment of barriers to implementation of the PHS guideline
- Discrete analog scale
 - 0 = “not at all”
 - 10 = “most possible”

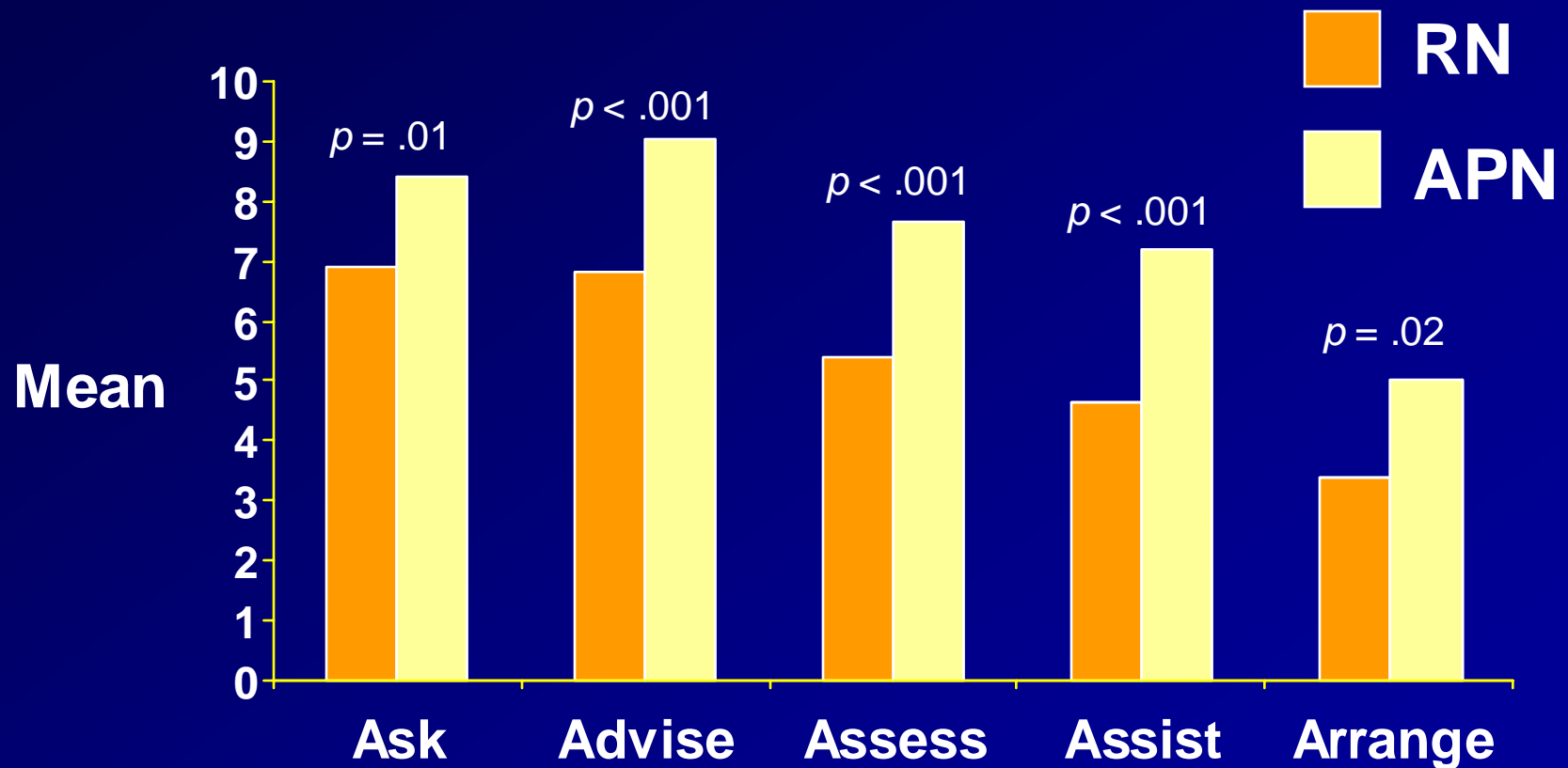
Analysis

- Paired-samples *t*-tests to compare mean pre- and post-test results
- Independent-samples *t*-tests for comparison of RNs and APNs:
 - Pre-training frequency of performing the 5A's
 - Pre-training barriers to implementation of tobacco cessation intervention
 - Post-training barriers to implementation of tobacco cessation intervention

Characteristics of the Trainees

Characteristic	<i>n</i> (%) or mean (SD)
Type of provider	
RN	166 (83.8%)
APN	32 (16.2%)
Age	47.7 (10.0)
Years of Service	22 (10.8)
Smoking status	
Current	10 (5.1%)
Past	53 (26.8%)
Never	127 (64.1%)

Pre-Training Frequency of Performing the 5A's



Responses were reported on a discrete analog scale of 0-10; 0 = "none" and 10 = "most possible"

Barriers to Implementation of Public Service Recommendations

Paired-samples *t*-tests

	Pre	Post	Mean Difference	SD	SE	<i>t</i>	<i>p</i>
Knowledge	4.8	8.4	3.6	2.6	.19	19.2	< .001
Motivation	7.9	9.0	1.1	2.3	.16	7.1	< .001
Confidence	5.6	8.3	2.7	2.3	.17	16.2	< .001
Importance	8.8	9.2	0.4	1.8	.13	2.7	.008
Effectiveness	6.1	8.4	2.4	2.4	.18	13.6	< .001
Barriers	7.3	8.9	1.7	2.6	.19	8.6	< .001
Preparedness	5.6	8.4	2.8	2.7	.20	14.3	< .001

Barriers to Implementation of Public Service Recommendations: RNs

Paired-samples *t*-tests

	Pre	Post	Mean Difference	SD	SE	<i>t</i>	<i>p</i>
Knowledge	4.5	8.3	3.8	2.6	.20	18.9	< .001
Motivation	7.7	8.9	1.2	2.4	.19	6.5	< .001
Confidence	5.3	8.2	2.9	2.4	.19	15.5	< .001
Importance	8.7	9.1	0.4	1.9	.15	2.5	.015
Effectiveness	6.0	8.4	2.4	2.4	.19	12.8	< .001
Barriers	7.2	8.8	1.8	2.6	.22	8.1	< .001
Preparedness	5.3	8.3	2.9	2.8	.22	13.3	< .001

Barriers to Implementation of Public Service Recommendations: APNs

Paired-samples *t*-tests

	Pre	Post	Mean Difference	SD	SE	<i>t</i>	<i>p</i>
Knowledge	6.8	9.0	2.2	2.1	.36	6.1	< .001
Motivation	8.9	9.6	0.7	1.3	.23	3.1	.004
Confidence	7.1	9.0	1.9	2.0	.35	5.3	< .001
Importance	9.6	9.8	0.3	1.2	.21	1.2	.244
Effectiveness	6.4	8.6	2.2	2.6	.47	4.6	< .001
Barriers	8.0	9.2	1.2	2.2	.40	3.1	.004
Preparedness	7.3	9.3	2.0	2.1	.37	5.5	< .001

Barriers to Implementation of Public Service Recommendations, Pre-training: RNs v. APNs

Independent-samples *t*-tests

	RN	APN	Mean Difference	SE	<i>t</i>	<i>p</i>
Knowledge	4.4	6.8	2.3	.41	5.7	< .001
Motivation	7.7	8.9	1.2	.32	3.7	< .001
Confidence	5.3	7.1	1.8	.44	4.2	< .001
Importance	8.7	9.6	0.9	.24	3.7	< .001
Effectiveness	6.0	6.4	0.4	.55	0.8	.43
Barriers	7.2	8.0	0.8	.44	1.9	.06
Preparedness	5.3	7.3	2.0	.47	4.2	< .001

Barriers to Implementation of Public Service Recommendations, Post-training: RNs v. APNs

Independent-samples *t*-tests

	RN	APN	Mean Difference	SE	<i>t</i>	<i>p</i>
Knowledge	8.3	9.0	0.7	.33	2.3	.03
Motivation	8.9	9.6	0.7	.30	3.3	.002
Confidence	8.2	9.1	0.9	.35	3.3	.002
Importance	9.0	9.8	0.8	.26	5.2	< .001
Effectiveness	8.3	8.7	0.4	.31	1.0	.32
Barriers	8.8	9.3	0.5	.23	2.2	.03
Preparedness	8.3	9.3	1.0	.24	4.4	< .001

Conclusions

Our results provide sufficient evidence to suggest that:

- Both RNS and APNs reported an improvement in:
 - Motivation
 - Knowledge
 - Self-efficacy
 - Perceived importance
 - Perceived effectiveness
 - Perceived importance of barriers
 - Perceived Preparedness

Conclusions (continued)

- In comparison to RNs, APNs reported:
 - More frequent pre-training performance of the 5 A's
 - Pre-training: higher motivation, knowledge, self-efficacy, perceived importance, and perceived preparedness
 - Post-training: higher motivation, knowledge, self-efficacy, perceived importance, perceived importance of barriers, and perceived preparedness

Conclusions (continued)

- This brief training is likely to increase the frequency of tobacco cessation assistance by nurses.
- Nurses have extensive reach into the tobacco using population in diverse array of clinical settings.
- Such training should become part of the formal training of all nurses.