

Training Healthcare Providers To Deliver Brief Tobacco Interventions Strategies and Impact

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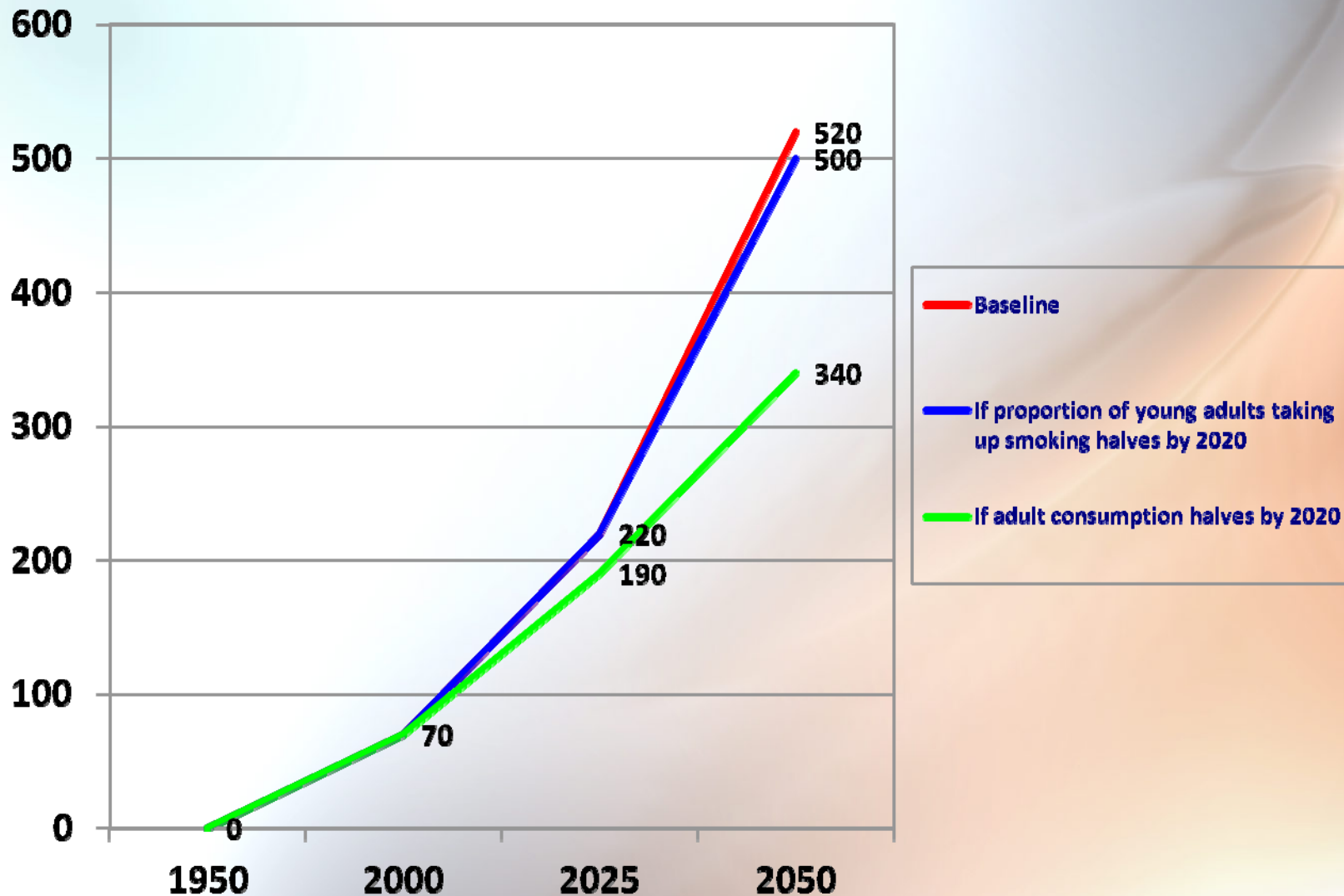


*Presented at the Mayo Nicotine Dependence Conference, May 22, 2012
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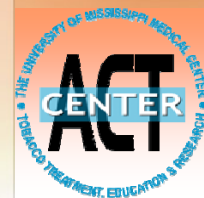
What are the Goals of Training?

- Provide clear rationale to healthcare professionals – key role they play and advantages in addressing tobacco use
 - **Brief time investment**
 - **Excellent reach**
 - **Interaction with a trusted, known provider**
 - **Ease in providing / adjusting / monitoring medications**
- Increase Provider knowledge about tobacco products, use, health effects
- Highlight importance, and improve quality of counseling efforts
- Teach strategies to motivate patients
- Proper and optimal use of available medications
- Explain need for follow-up and strategies to accomplish
- Clinic coordination
- Available resources
- Status and strategies for billing for services

Unless current smokers quit, smoking deaths will rise dramatically over the next 50 years



Peto & Lopez, 2001

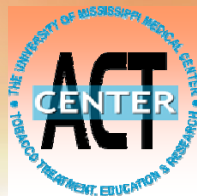


Treating Tobacco Use and Dependence

2008 UPDATE

**U.S. Public Health Service
Clinical Practice Guideline**

www.ahrq.gov/path/tobacco.htm



Training Components

*Overview of ACT Center 3.5-hour
Brief Treatment (5A's) Workshop*



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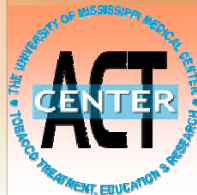
USA Adult Tobacco Use

2010

● Cigarette	19.3%	
● Men		21.5
● Women		17.3
● Cigar	5.4%	
● Pipe	1.0%	
● Smokeless	3.3%	
● Men		6.5
● Women		0.4

Conclusions

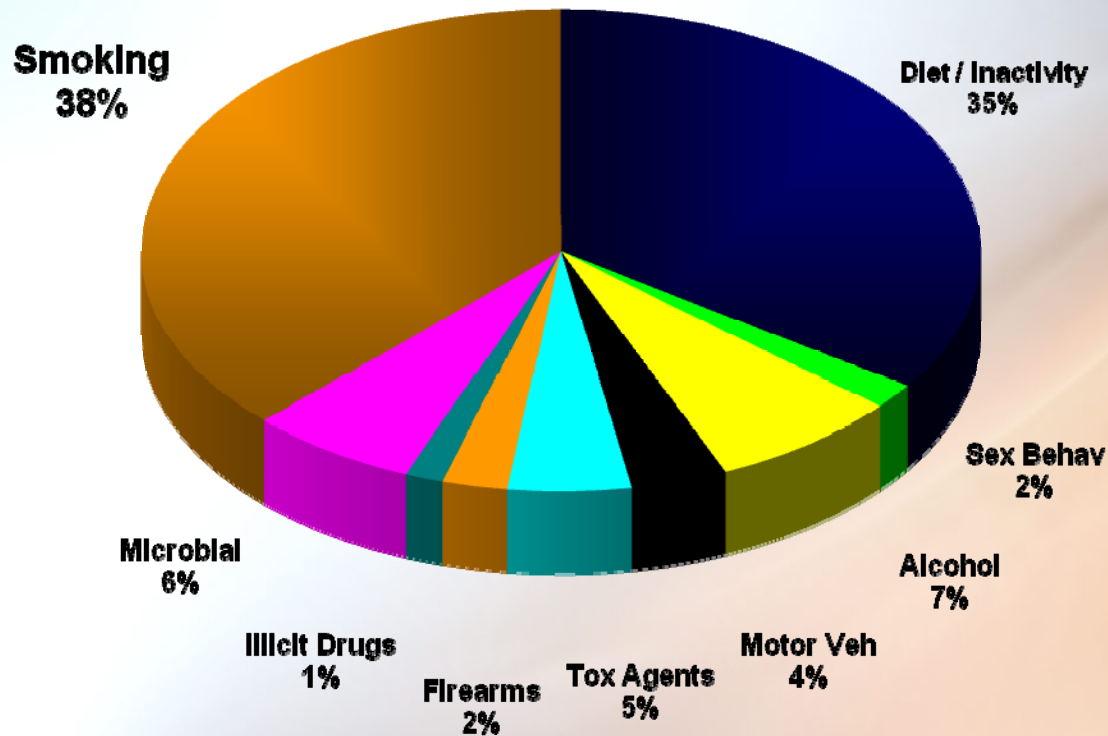
Previous declines in smoking prevalence in the United States have stalled during the past several years; the burden of cigarette smoking continues to be high, especially in persons living below the federal poverty level and with low educational attainment. Sustained, adequately funded, comprehensive tobacco control programs could reduce adult smoking.



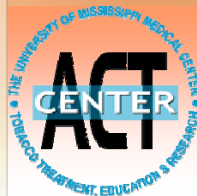
Tobacco's Impact on Health

- Cardiovascular
- Respiratory
- Oral
- Cancer
- Senses
 - Visual Impairment
 - Auditory Impairment
- Skin
 - Wrinkling
 - Psoriasis
- Bone
 - Fracture
 - Degeneration
- Rheumatoid
- Arthritis
- Osteoporosis
- Longer hospital stay & recovery
- Pregnancy
 - Fertility
 - Delivery problems, Stillbirth, Spontaneous abortion
 - Low birth weight, Premature
 - SIDS
 - Cognitive & Behavioral impairment
 - Cancers
 - Increased likelihood of tobacco use

Actual Causes of Death in the USA in 2000



Mokdad et al 2004 (JAMA)



Tobacco Health-Related Topics

- **Constituents delivered**

- **Nicotine**
- **Tar**
- **Carbon Monoxide**
- **Selected toxic agents**

- **Environmental Tobacco Smoke**

- **Smoked vs. Smokeless**

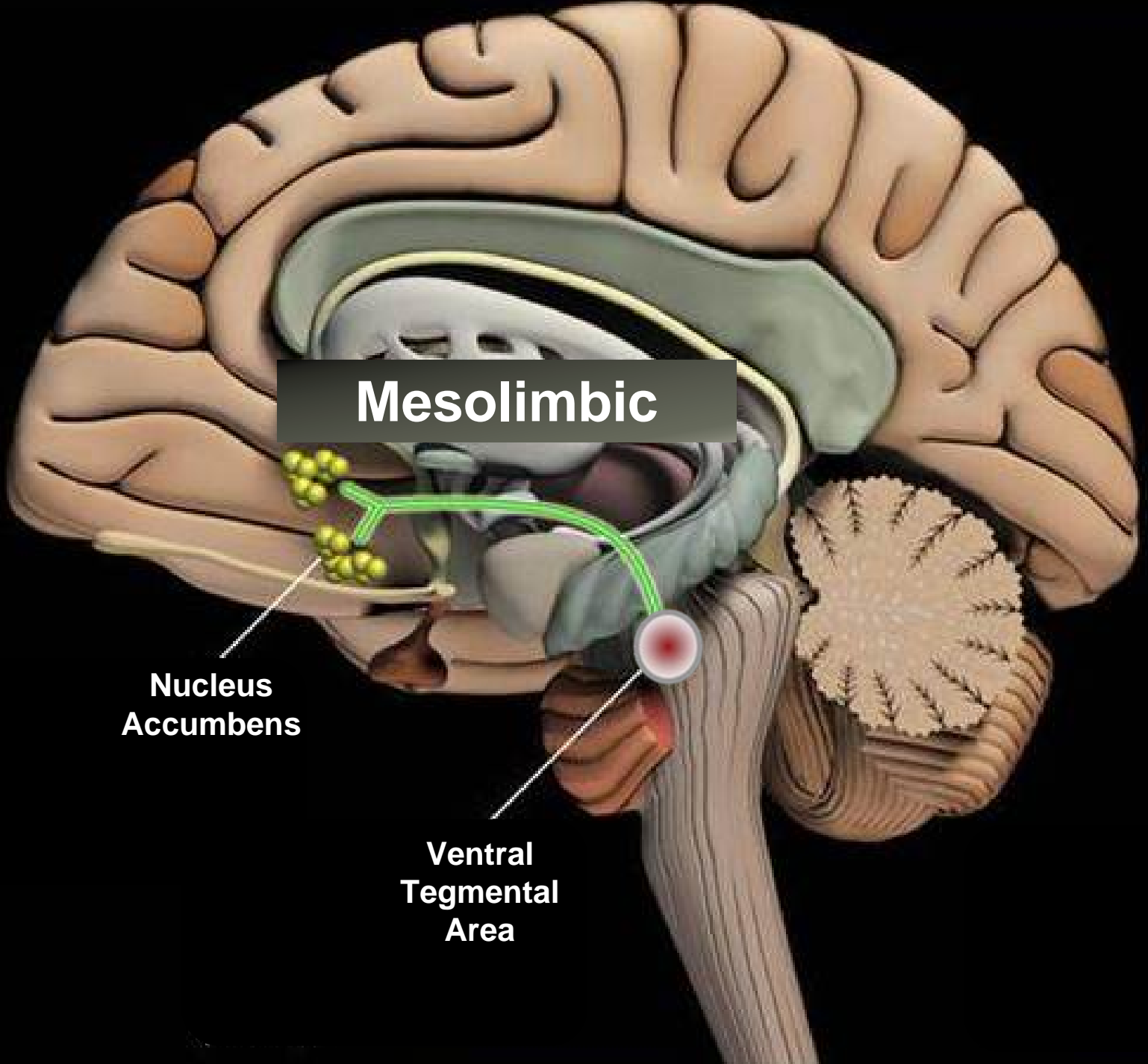
- **Health**
- **Addiction**

- **Benefits of Cessation**

- **Prevention of Disease**
- **Disease Management**
- **Quality of Life**
- **Financial**

Nicotine Dependence

- **Biological factors**
- **Relationship with outcome**
- **Evidence of increasing levels among treatment seekers**
- **Indicators**
 - **Daily amount**
 - **Morning smoking**
 - **Nighttime**



Mesolimbic

**Nucleus
Accumbens**

**Ventral
Tegmental
Area**

Primary Symptoms of Nicotine Withdrawal

- **Insomnia**
 - Evident 1st day of quitting
 - Primarily sleep fragmentation
 - Some report decrease in sleep latency
 - Peaks within 1 - 3 days
 - Lasts 3 - 4 weeks
- **Irritability / Frustration / Anger**
 - Can last > 1 month
 - 80% of quitters endorse this
 - Anxiety
 - Often evident prior to quit attempt
 - Peaks within days
 - Lasts 3 - 4 weeks
- **Difficulty Concentrating**
 - Evident 1st day of quitting
 - Peaks within 1 - 3 days
 - Lasts 3 - 4 weeks
 - Generally mild
- **Dysphoric / Depressed Mood**
 - Can last > 1 month
- **Restlessness**
 - Lasts < 1 month
 - Perceived as highly aversive
- **Increased Appetite / Weight Gain**
 - Appetite change lasts 10 weeks
- **Decreased Heart Rate**
 - Average decrease is 10 bpm

Medications

- **Therapeutic Effect / Mechanism of Action**
- **Warnings and Contraindications**
- **Medication Interactions**
 - **Special population issues**
- **Proper Usage**
- **Off-Label Usage**
- **Emphasize careful training of patients**
- **Other Considerations**

NRT Products



Non-Nicotine Medications



Depression, Suicidal Risk, Other

- **Suicide base rates**
 - **US: male 17.7, female 4.5, overall 11.1**
 - **UK: male 10.4, female 3.2, overall 6.8**
- **Gunnell et al., 2009**
 - **Compared NRT, Bupropion, and Varenicline**
 - **No differences in suicidal thinking**
 - **No increased risk for start of antidepressant therapy**
 - **No differences in fatal or non-fatal self-harm**

Suggestions for Maximizing Pharmacotherapy

Emerging Off-Label Conventions

- **High Dosage Options**
- **Pre-Quit Administration (NRT)**
- **Extended Duration**
- **Combination Pharmacotherapy**
- **Review Effectiveness and Safety data**

Managing Minor Medication Side Effects

- Insomnia
 - Dry Mouth
 - Unusual / Vivid Dreams
 - Irritability
 - Nausea
 - Dizziness
 - Jaw Muscle Ache; Hiccups
 - Mouth Ulcers
 - Heart Racing
 - Skin Burning / Itching
 - Vomiting
- **For each medication**
 - **Specific recommendations for management**

Motivational Enhancement

DO

DO NOT

Emphasize Partnership

Lecture

Provide Accurate Information

Use Scare Tactics

Ask Open-Ended Questions

“Just the facts”

Focus on Specific Behaviors & Goals

Rely on Distant Health Outcomes

Involve Supportive Friends & Family

Assume Patients can ‘Go It Alone’

Reward all Efforts and Progress

Simply Focus on ‘End Game’

Summarize Points

Assume all is Understood



Motivational Interviewing

Core Components

- **Express Empathy**
 - **Feeling accepted facilitates behavioral change**
- **Develop Discrepancies**
 - Client makes the argument for change
- **Roll with Resistance**
 - **Provides an opportunity to respond differently**
- **Support Self-Efficacy**
 - Greater likelihood of success with Belief in the possibility of change, and Confidence to succeed

The 5A's Treatment Approach

- **Ask**
- **Advise**
- **Assess**
- **Assist**
- **Arrange**

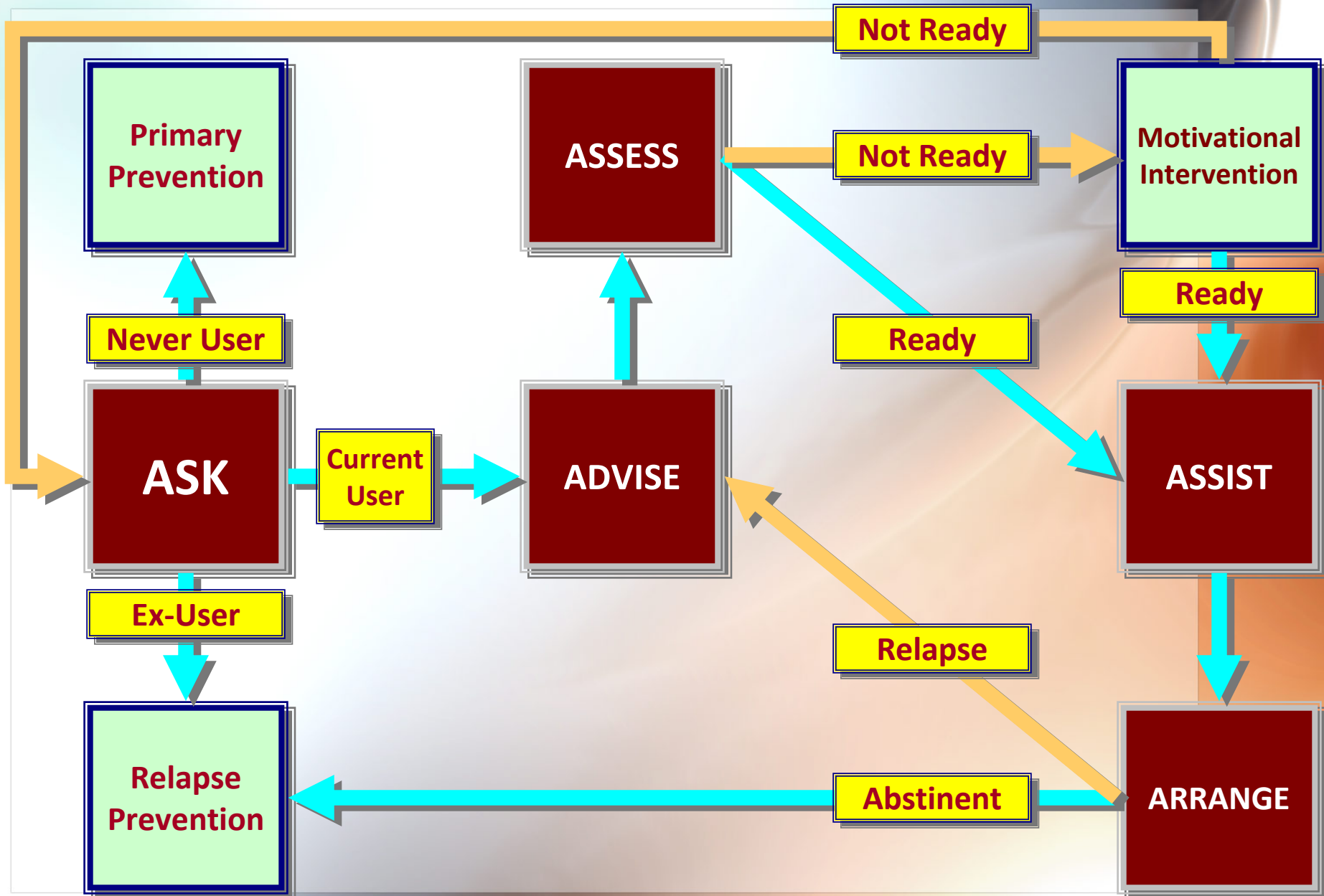
**Designed for the busy
office environment**

Flexible

Easily implemented

Clinical Treatment Model

Adapted from PHS
Guideline (2008)



ASSIST with the Quit Attempt

Tailor Your Approach to Motivational Status

0 1 2 3

4 5 6

7 8 9 10

**Not Ready
to Quit**

**Possibly Ready
to Quit**

**Ready to
Quit**

**Explore attitudes
about tobacco**

**Educate: withdrawal,
medications**

Develop plan

Execute

**Reduce resistance to
possibility of quit**

**Increase confidence
in ability to succeed**

**Review personalized
risks and benefits**

**Attempt small
behavior change
(reduce rate)**

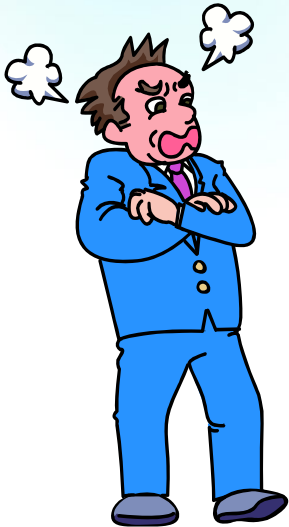
Medications?

Medications?

2 Common Barriers...

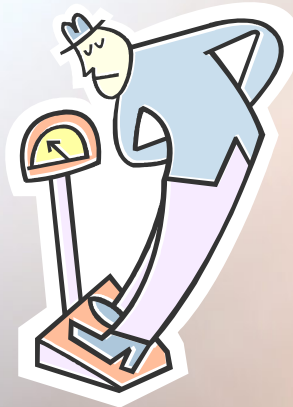
Stress

- Engage in distracting activities
- Physical activity
- Schedule time for hobbies
- Relax...explore preferences
- Enjoyable social activities



Weight Gain

- Typical 10 - 12 lb gain
- Associated health risks minimal
- Concern about gain is a better predictor of poor outcome than actual gain
- NRT and Bupropion delay, but do not prevent weight gain
- Clinical considerations:
 - Cessation first; option to target weight later
 - Modest increase in physical activity level
 - Modest changes in diet



Relapse is Part of the Process

- Briefly review reasons for lapse
 - **Attempt to quit completely?**
 - **High risk situations encountered**
 - **Strategies attempted**
- Evaluate prior medication usage
 - **Adequate dosage?**
 - **Sufficient duration?**
 - **Proper technique?**
 - **Withdrawal symptoms?**
 - **Medication side effects?**
- Normalize patient's experience
- Establish new plan
- Set new quit date

Intervening on ETS Exposure

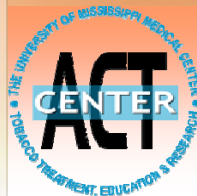
- **Reduce direct harmful effects on others**
- **Reduce 1 source of relapse risk**
- **May influence others' interest in quitting**
- **Intervene using approach consistent with 5A's model**

Referral Options for Additional Tobacco Treatment

- **When to Consider**
 - **Clearly unsuccessful with brief approach**
 - **Several previous failures**
 - **Complex medication management**
 - **Complex life circumstances**
 - **Co-morbidities present**
 - **Highly nicotine dependent**
- **Options**
 - **Approaches**
 - **As an adjunct to your efforts**
 - **As the sole treatment**
 - **Options**
 - **Intensive Specialty Clinic**
 - **Quitline**

www.act2quit.org

1 800 QUIT NOW



Clinic Coordination

- **Assign Duties and Roles**
 - **Tobacco Coordinator**
 - **Front Desk**
 - **Nurses, Hygienists, Assistants**
 - **Lab Personnel**
 - **Allied Health Staff**
 - **Primary Provider**
- **Resources**
 - **Replenish**
 - **Websites**
 - **Certificates**
 - **Waiting Rooms / Patient Areas**
- **Documentation and Tracking**
 - **Charting**
 - **Scheduling**
 - **Reminders**
 - **HIPAA**
- **The Message**
 - **Staff Familiarity**
 - **Tailored to Patient Progress**
- **Implementation Plan**

Intervention Time Required

- **Never User** **1/2 min**
- **Ex-User** **1/2 min**
- **Not Ready User: Motivate** **1 min**
- **Ready User: 5A's** **2-3 min**
- **Ready User: 5A's + 1st Script** **4-6 min**

Realistic Time Requirements

- Scheduled Patients 40
- Tobacco Users (~25% scheduled) 10
 - Not Interested 3
- Interested in Quitting (70% users) 7
 - Not Ready Today 5
 - Ready Today 2

3 Not Interested x 1 min = 3 min

5 Not Ready x 1 min = 5 min

2 Ready x 6 min = 12 min

20 minutes

Evaluation of Training Efforts



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Study 1 (Under review)

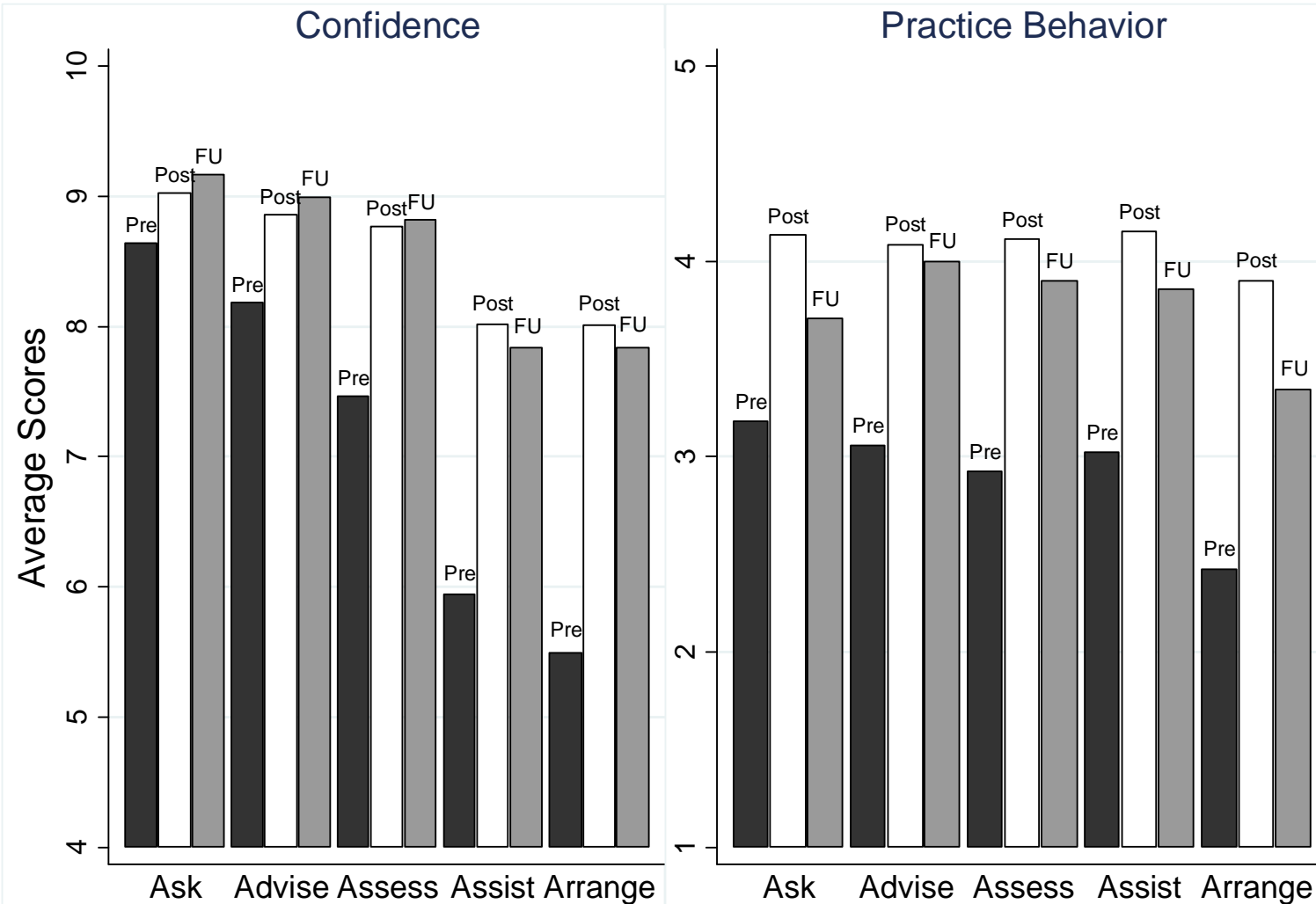
- 488 healthcare providers (primarily non-physician)
- Hospitals in MS, LA, AR, AL, IL, WV
- Procedure
 - **Standard workshop**
 - **3.5 hours CE, Refreshments**
 - **Surveys: Pre, Post (immediate), 6-mo Follow-Up**
 - **Demographics, practice history and settings, prior training, etc.**
 - **Frequency of Practice Behaviors**
 - **Self-Efficacy**
 - **Attitudes re: Tobacco Treatment**

Baseline

Characteristic	Total (N = 488)	Follow-Up Survey <u>Not</u> Completed (N = 236)	Follow-Up Survey Completed (N = 252)	p
Gender				
Male	63 (13.0%)	29 (46.0%)	34 (54.0%)	0.681
Female	420 (87.0%)	205 (48.8%)	215 (51.2%)	
Race				
White	345 (72.3%)	156 (45.2%)	189 (54.8%)	0.033
Black	91 (19.1%)	55 (60.4%)	36 (39.6%)	
Other	41 (08.6%)	21 (51.2%)	20 (48.8%)	
Prior tobacco training				
Yes	100 (21.0%)	40 (40.0%)	60 (60.0%)	0.054
No	376 (79.0%)	191 (50.8%)	185 (49.2%)	
Aware of PHS Guideline				
Yes	125 (26.4%)	60 (48.0%)	65 (52.0%)	0.848
No	349 (73.6%)	171 (49.0%)	178 (51.0%)	
Tobacco use status				
Never	301 (63.2%)	138 (45.9%)	163 (54.1%)	0.308
Past, Experimental	82 (17.2%)	47 (57.3%)	35 (42.7%)	
Past, Regular	67 (14.1%)	34 (50.8%)	33 (49.2%)	
Current User	26 (05.5%)	12 (46.2%)	14 (53.8%)	
% patients treated				
0-25%	280 (62.5%)	126 (45.0%)	154 (55.0%)	0.076
26-50%	60 (13.4%)	32 (53.3%)	28 (46.7%)	
51-75%	51 (11.4%)	25 (49.0%)	26 (51.0%)	
76-100%	57 (12.7%)	36 (63.2%)	21 (36.8%)	
% patients encouraged				
0-25%	104 (24.1%)	50 (48.1%)	54 (51.9%)	0.154
26-50%	30 (06.9%)	10 (33.3%)	20 (66.7%)	
51-75%	51 (11.8%)	30 (58.8%)	21 (41.2%)	
76-100%	247 (57.2%)	126 (51.0%)	121 (49.0%)	
Years of practice	17.86 (11.4)	17.55 (11.34)	18.14 (11.50)	0.599

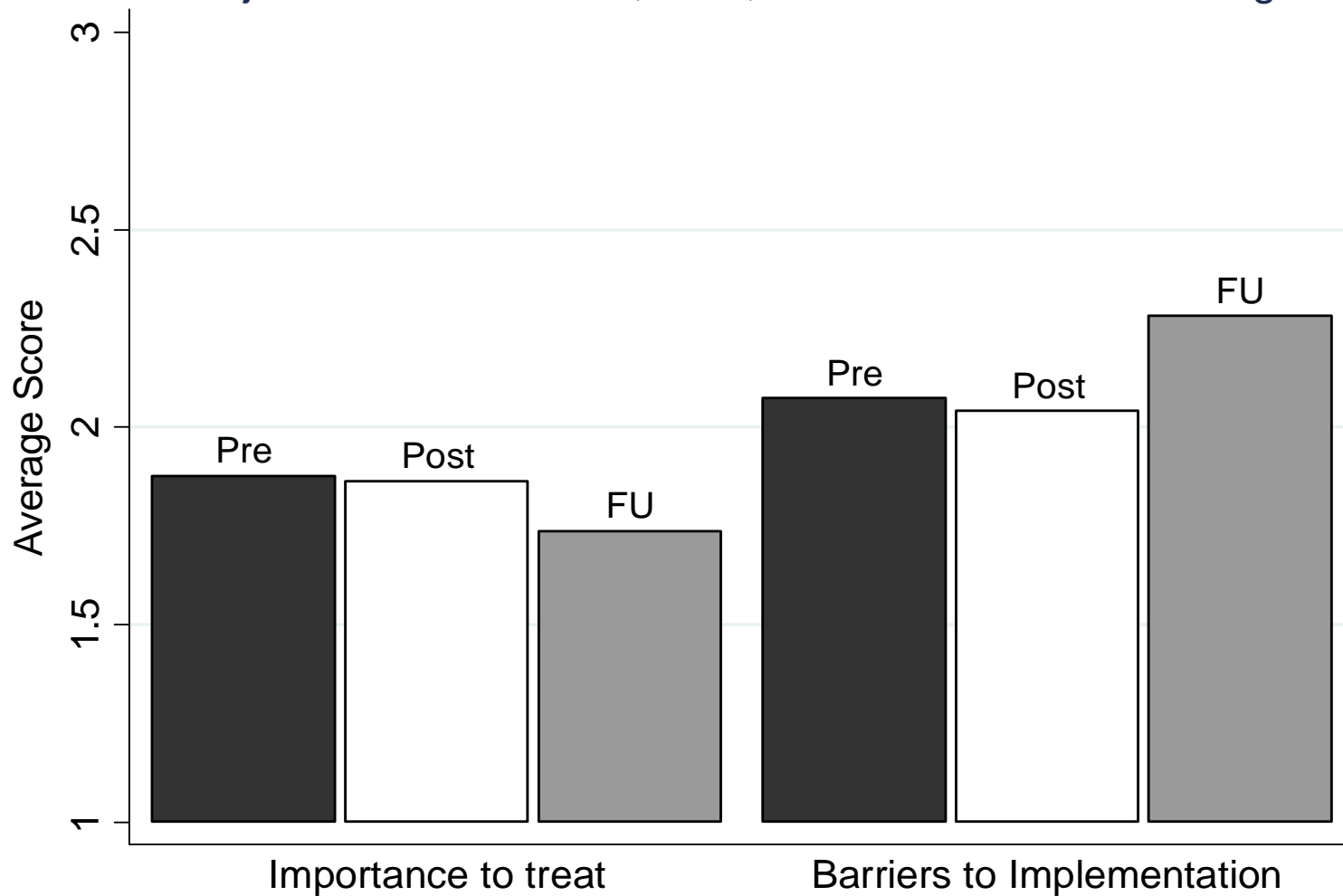
Practice Behaviors and Self Efficacy

Adjusted means at Pre, Post, and FU for each 5As factor



Attitudes

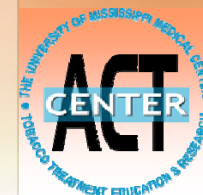
Adjusted means at Pre, Post, and FU for Attitude Ratings



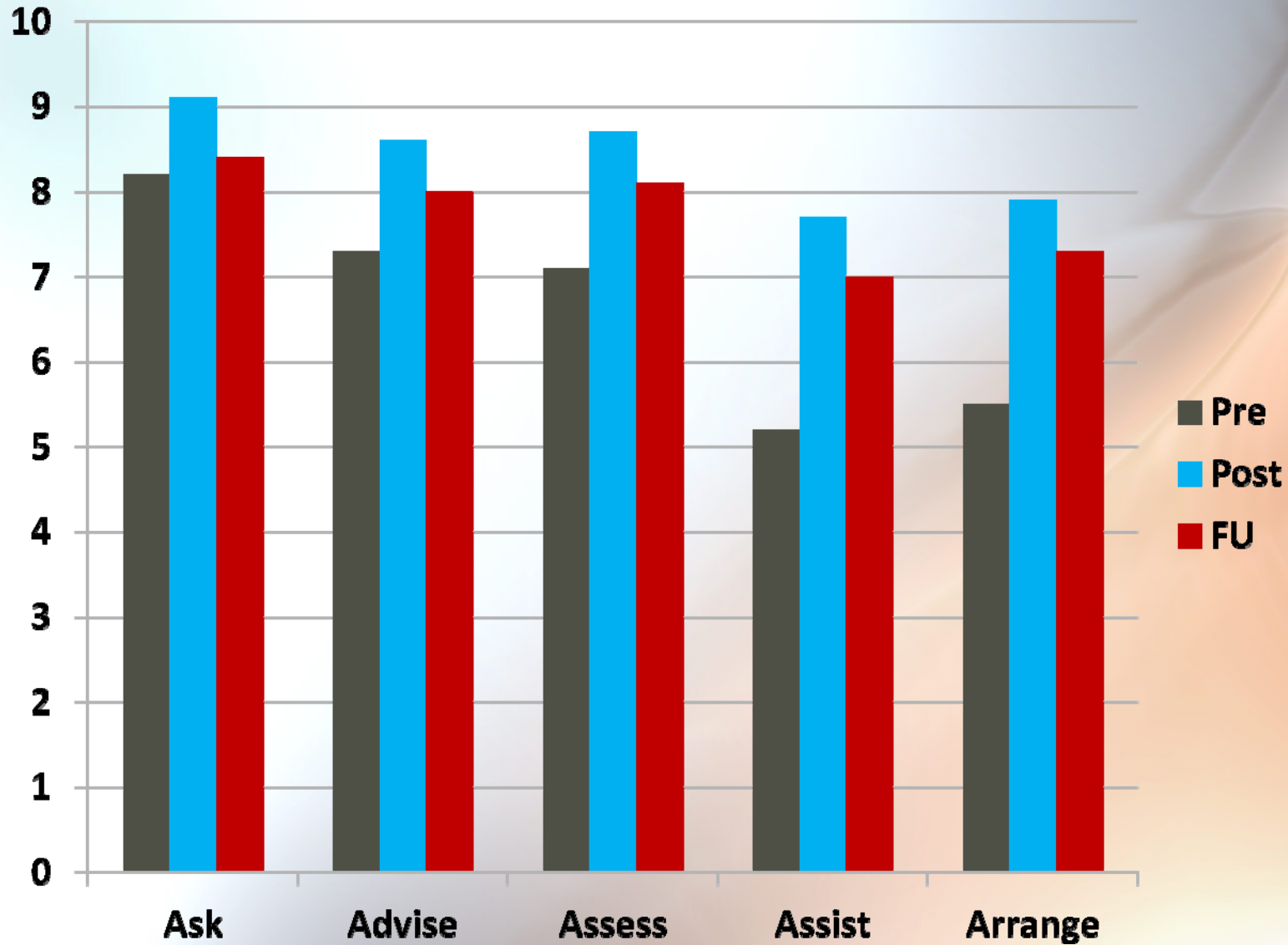
Study 2 MH / SUD Providers

N = 78

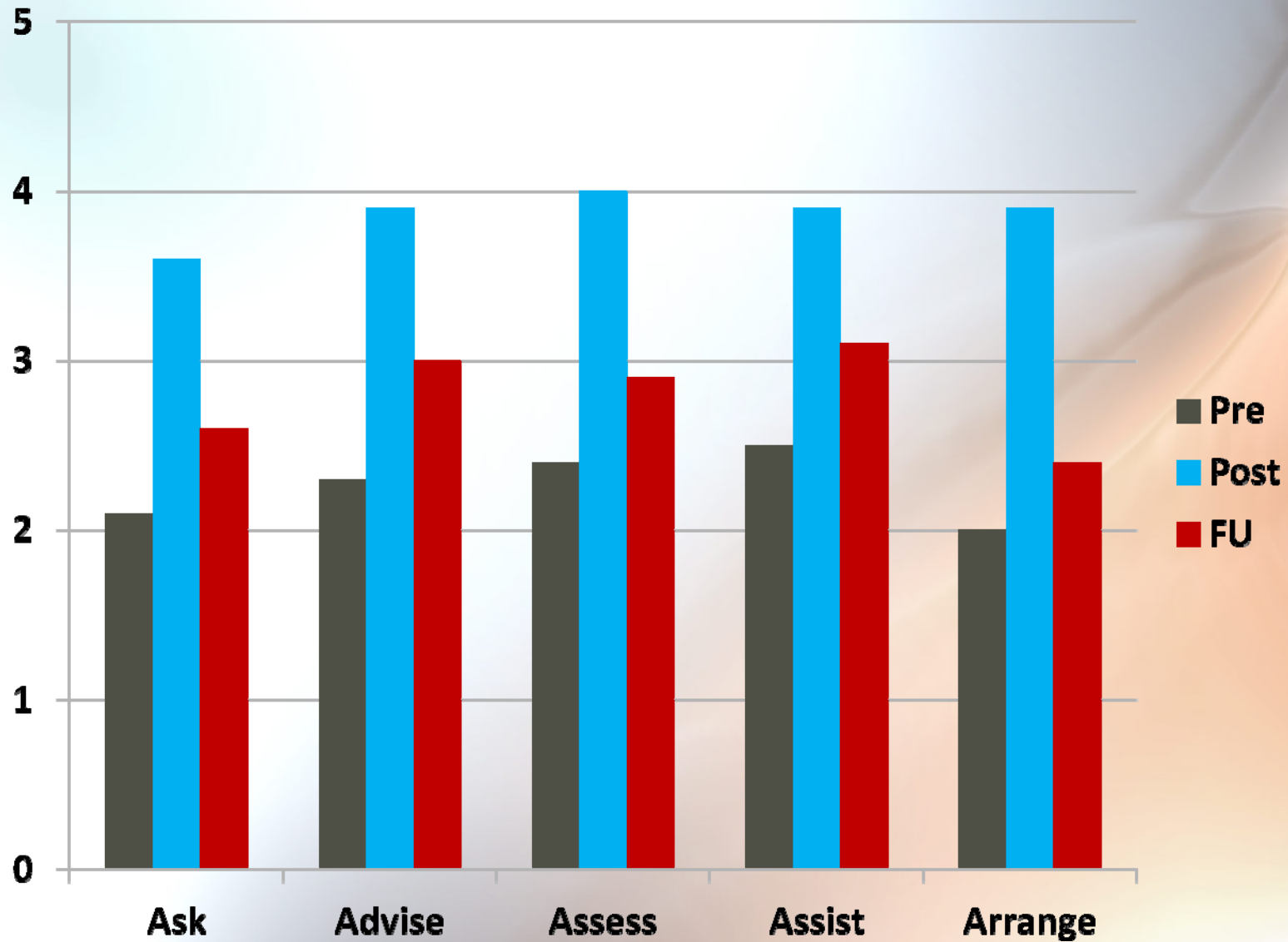
Gender (Female)	71.1
Race	
African American	34.2
White	60.5
All Others	5.3
Hispanic Ethnicity	3.9
Profession	
Nurse	14.5
Physician	10.5
Social Worker	32.9
Counselor	21.1
Psychologist	5.3
Occupational Therapist	3.9
Other	11.8
Years Practicing	17.35
Aware of PHS Guideline	17.1
Prior Tobacco Training	
Workshop / Seminar	14.5
On-line / Self-Study	3.9
Other	5.3
None	76.3



Self-Efficacy (MH / SUD Providers)



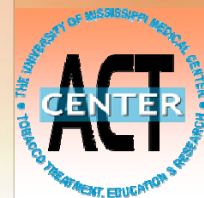
Practice Behaviors (MH / SUD Providers)



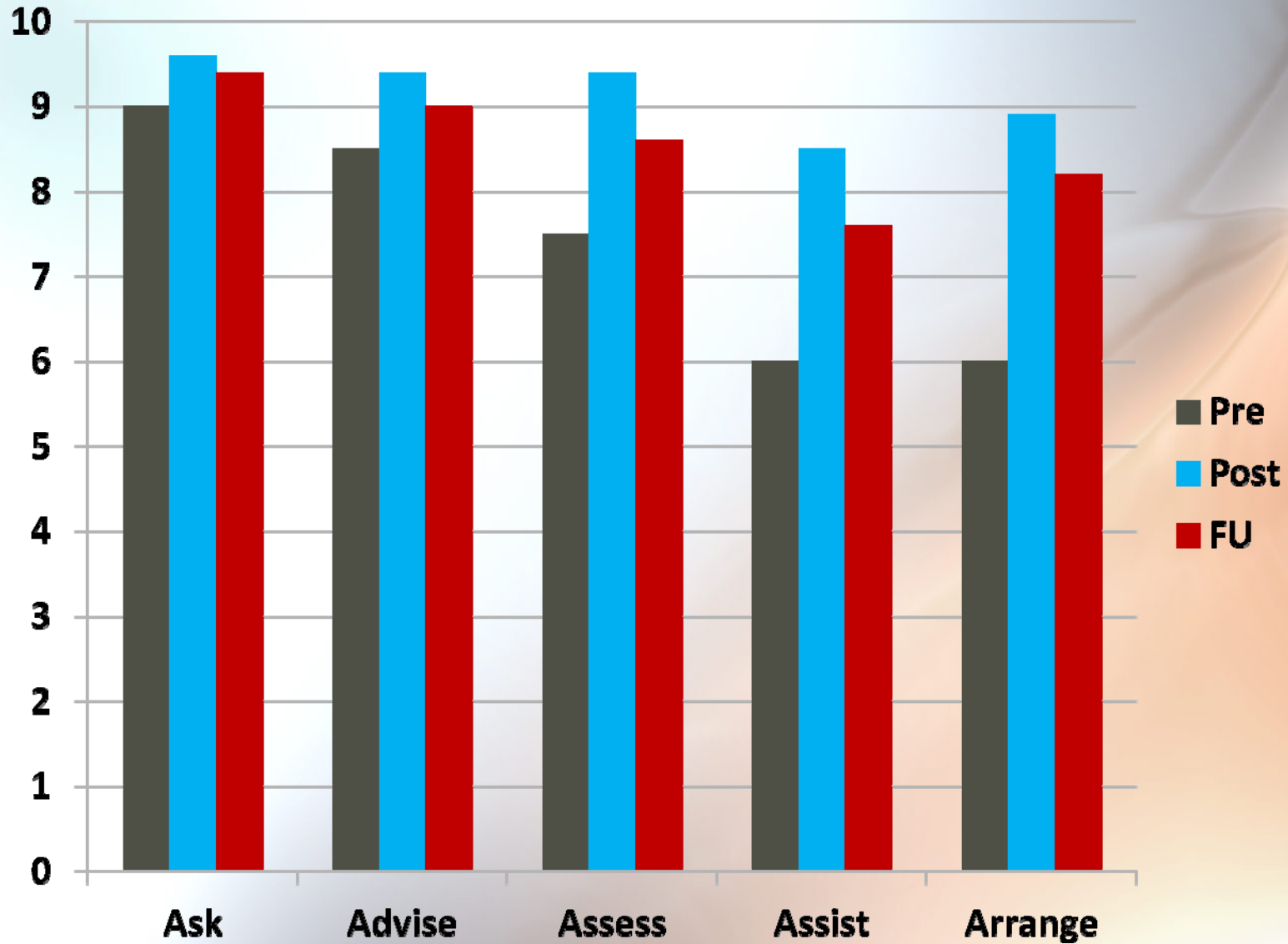
Study 3 PREG Providers

N = 82

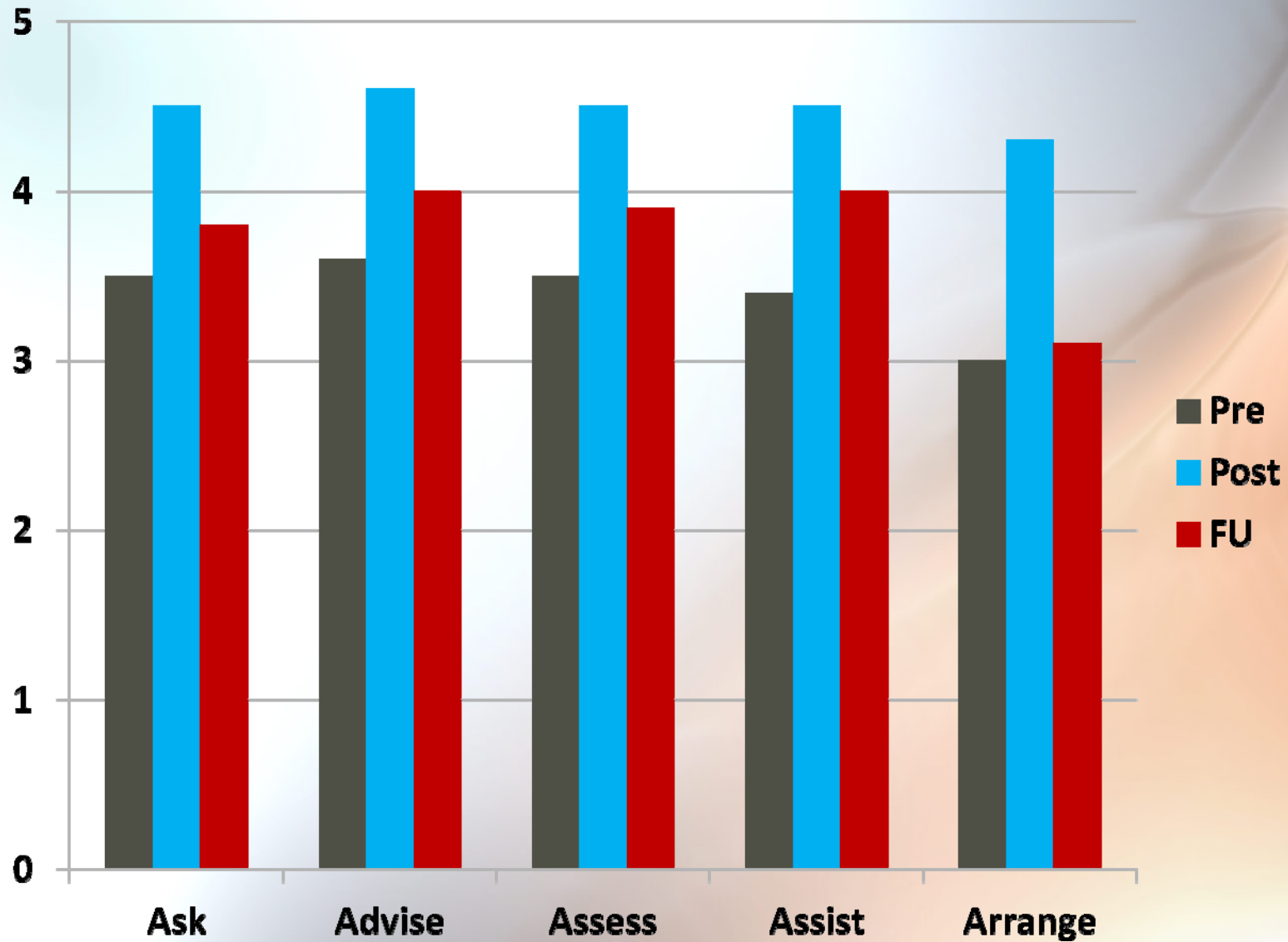
Gender (Female)	88.4
Race	
African American	37.2
White	57.0
All Others	5.8
Hispanic Ethnicity	3.5
Profession	
Nurse	31.8
Physician	16.5
Social Worker	16.5
Counselor	7.1
Psychologist	2.4
Dentist	1.2
Other	24.7
Years Practicing	13.51
Aware of PHS Guideline	24.7
Prior Tobacco Training	
Workshop / Seminar	35.3
On-line / Self-Study	5.9
Other	1.2
None	57.6



Self-Efficacy (PREG Providers)



Practice Behaviors (PREG Providers)



Summary

- **Many providers appear unprepared to provide tobacco treatment services**
 - **Ask and Advise functions are implemented fairly routinely among those attending workshop**
 - **Assess, and particularly Assist and Arrange are less likely to be implemented**
- **Training improves implementation of treatment services**
 - **Both frequency of Practice Behaviors and Self-Efficacy are improved**
 - **Evidence suggests sustained increase through 6-month follow-up**
 - **Arrange least likely to be sustained, possibly due to barriers outside provider control**

Recommendations

- Training should be encouraged / implemented / required widely
- Post workshop assistance helpful
 - **Having a higher level trained expert on site is one option**
- Clinic activities and outcomes should be monitored
- Adequate reimbursement will likely improve rates of clinical activity
- Encourage billing
- Specifically coordinating clinics with higher intensity programs most likely to meet patient needs
 - **Working with clinic provider to write scripts / address medical considerations promotes collaboration and likely facilitates treatment**
 - **QLs have advantage of reach and easy accessibility**
 - **In-Person programs likely to provide better treatment to patients with more complex presentations**