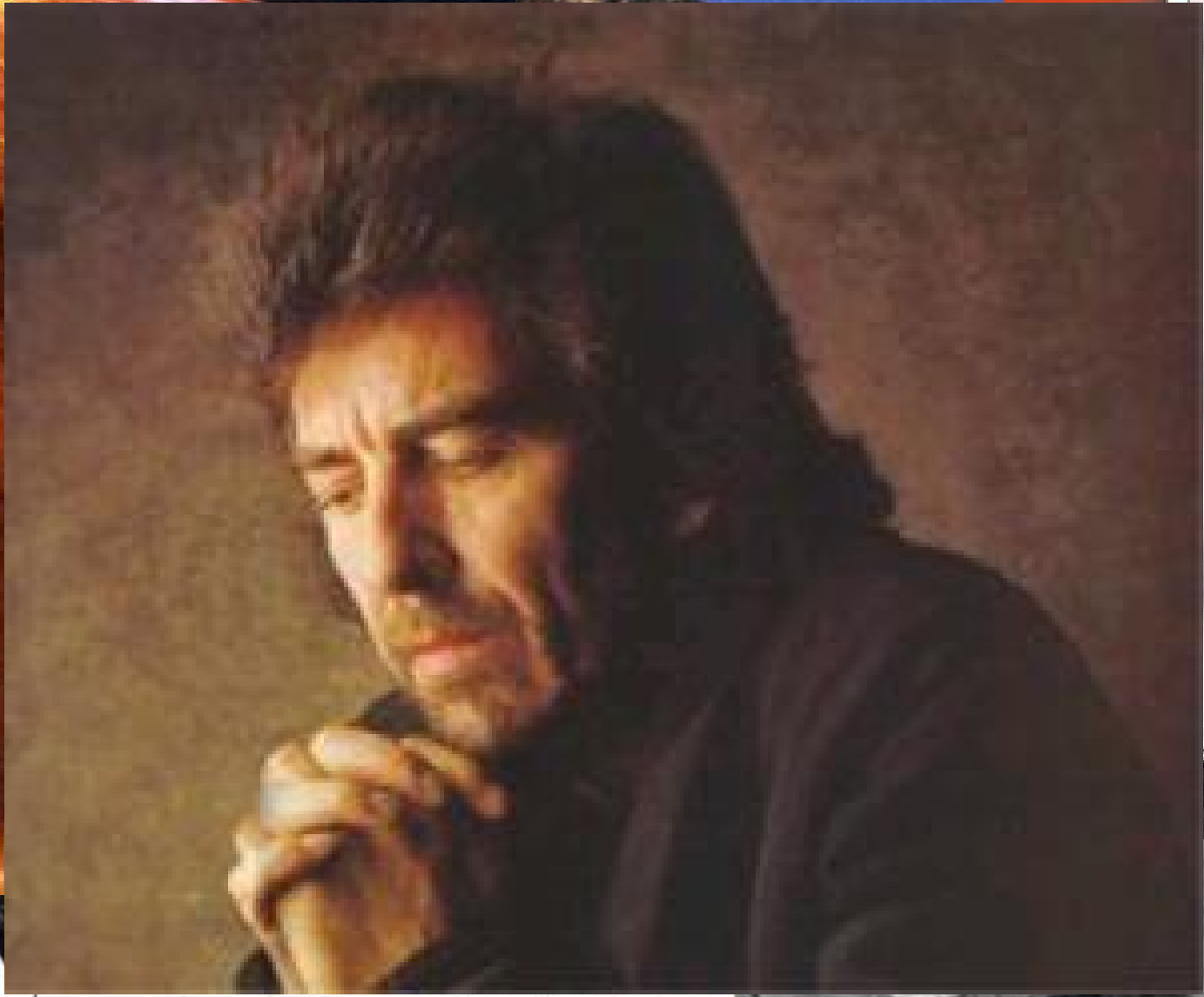
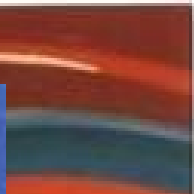


- This product was developed by the Providence St. Peter Family Medicine Residency Program at Providence St. Peter Family Medicine in Olympia, WA. Support for this product was provided by a grant from the Robert Wood Johnson Foundation® in Princeton, New Jersey.

Promoting Nonsmoking: A Central Part of Primary Care



Devin Sawyer, MD, SPFM, 1-30-06



Epidemiology

Worldwide:

- 500 million of those alive today will be killed by tobacco
- 5 million premature deaths worldwide in 2000



In the US:

- 442,398 deaths annually
- 1 in every 7 or 8 deaths
- Cancer of Lung, Trachea, Bronchus = 124,813
- Cardiovascular Disease = 148,605

...and so on...

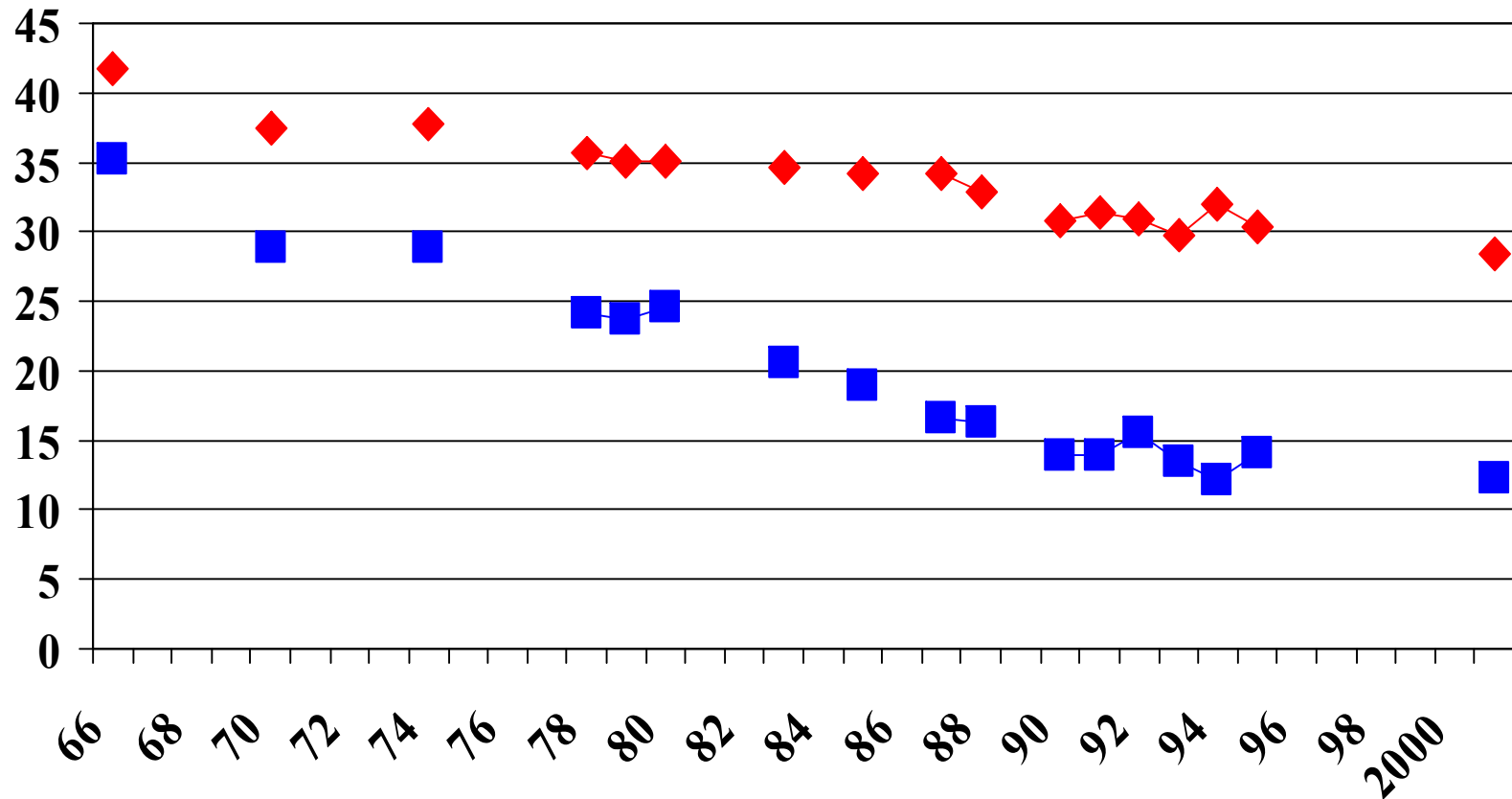
In the US health consequences and productivity losses associated with smoking are estimated to cost in excess of \$90 billion every year



Adolescents:

- 57% try smoking at least once by 12th grade
- Almost everyone who smokes as an adult started by 18
- The earlier a person begins the more likely they continue
- Within a year of smoking initiation, children inhale the same amount of nicotine per cigarette as adults, and experience the craving and withdrawal symptoms

Prevalence of Smoking among US Adults by Education (< 12th, ≥ 16th), 1966 – 2001



2001 Data: Centers for Disease Control & Prevention. Cigarette Smoking among Adults – United States, 2001. *MMWR* 2003 52: 953-956.

Lack of Awareness of Risk

- Among auto accidents, HIV, homicide, air pollution, and smoking
 - only 22% of adults rated smoking as #1 cause of death
 - only 17% among smokers(American Lung Assoc, Gallup Org, 1992)
- Among adults with diabetes
 - “I have diabetes, I don’t have to worry about cancer”
 - “Smoking helps keep my weight down”
 - But smoking increases risk of CVD, most likely cause of death among those with diabetes
 - Providers advise against smoking less often the more diseases a person has

So why do people smoke?

POLITICALLY CORRECT

By Jim Huber

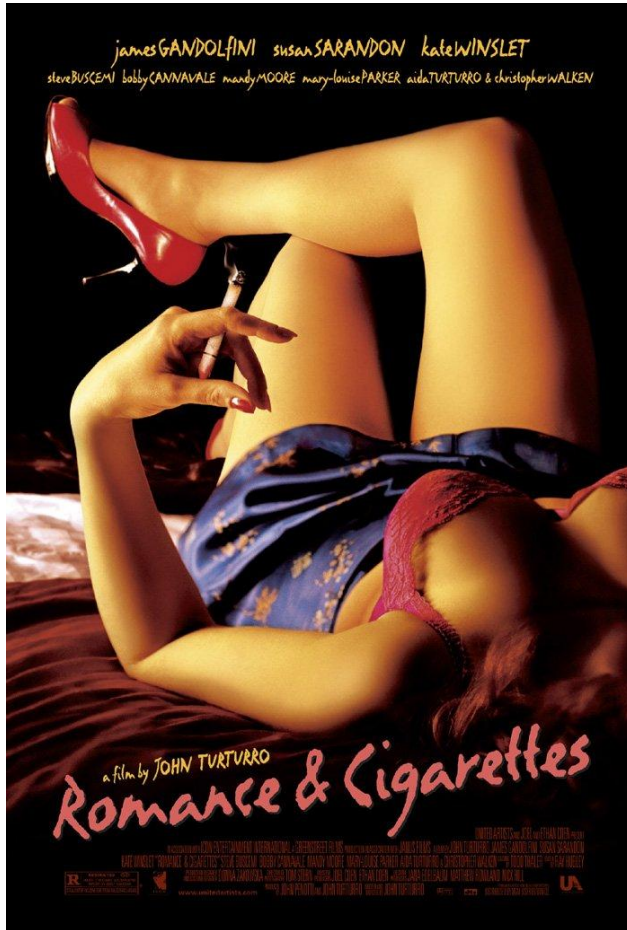


Smoking is Simple

- Hand
- Mouth
- Inhale constituents
- x 20+ years
- Disease and Death



Smoking is Sexy!



VIRGINIA SLIMS
You've come a long way, baby.
Just not as far as me.



**SURGEON GENERAL'S WARNING:
Cigarette Smoke Contains Carbon
Monoxide.**

Smoking is Rugged



Smoking is Stupid



Smoking is Complex

- Genetics
- Psychophysiology of nicotine metabolism
- Personality and affect
- Social influences – peers, families, communities
- Economic influences
- Organizational influences
- Legal influences
- Marketing -- Economics of Smoking -- International Trade

Smoking is a learned behavior

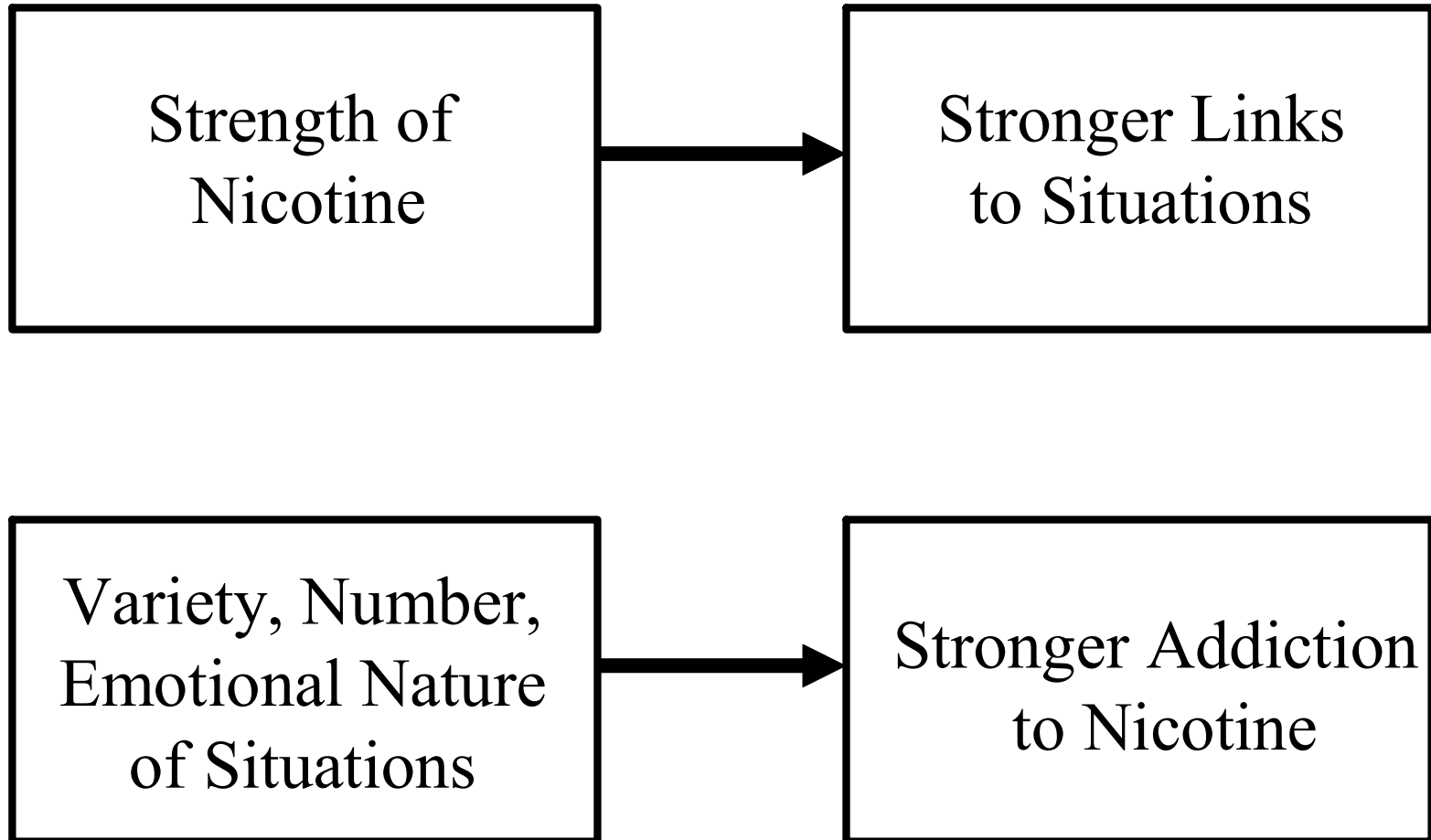


Conditioning of Smoking

- **Reinforcing Effects**
 - Euphoriant -- mood elevating
 - Anxiolytic -- anxiety reducing
 - Stimulant
- **Rapid delivery**
 - 7 sec mouth to CNS
- **Rapid clearance**
- **Thus, subtle titration**
- **Over 1 million conditioning trials in 20-year Hx**
7 puffs x 20 cigs x 365 days x 20 yrs = 1,022,000



Addiction & Conditioning Aggravate Each Other



Smoking and Distress

- More common among those who are depressed
- Quitting less likely among those who are depressed
- For sex and marital status, prevalence highest among divorced/separated men: 48.2% (Surg Gen Rept 1988)
 - Parallel to alcoholism, suicide
- Mental health outpatients (Hughes et al 1986):
 - 88% among schizophrenics
 - 49% among depressed
- 76% of male users of “soup kitchen” (McDade & Keil, 1988)

So how do we help this guy?



What we have learned from *Behavior Change* and *Self-Management* literature...

RSSM	Possible Examples
1) Individualized Assessment	Smoking as a vital sign- ask at every visit, reinforce at every visit, “The <i>Haughton</i> form”
2) Collaborative Goal-Setting	“5 A’s” (Assess, Advise, Agree, Assist, Arrange), FRAMES, BBSWAR, The Action Plan
3) Skills for quitting and staying quit	ALA’s Freedom From Smoking ® ADA Materials and self-help manuals
4) Follow Up and Support	Support lines, more contact with office, support groups, group visits
5) Community Resources	Understanding of importance by family, friends Clean indoor air regulations, Comm. Approach Media Attention
6) Continuity of Quality Clinical Care	Rx for Zyban®, Nicotine replacement Follow up and referral

Individualized Assessment



RSSM- 1

Smoking as A Vital Sign...

Find out Smoking Status

Never smoked (less than 100 in lifetime)

Ex-smoker (*PRAISE! and remember*)

___ More than 2 years

___ Less than 2 years

If they Smoke (this is your *set up*)

___ Planning to quit in next month

___ May quit in next 6 months

___ No plan to quit

Use the *Haughton* form...

Collaborative Goal-Setting



RSSM- 2

“5 A’s”

1. Assess
2. Advise
3. Agree
4. Assist
5. Arrange

“FRAMES”

- Feedback
- Responsibility
- Advice
- Menu of options
- Empathy
- Self-Efficacy

“BBSWAR”

- Background
- Barriers
- Successes
- Willingness-
to-change
- Action Plan
- Reinforcement

An individualized **assessment** that leads to an **action plan** that you help them with that they **believe** they can do

Assess Smoking

- Understanding of risks of smoking
- Check: Understand enormity of risk???
- Smoking patterns of family, friends
- Previous and planned quit attempts

- The *Haughton* form makes this process more efficient...

Advise to Quit, *Non-directive*

- **Precontemplation – Not thinking about quitting (non-directive)**
 - Quitting is THE MOST important thing can do to protect health
 - Be Low-key re: risks
 - *Promise of help*
- **Contemplation – Maybe in next 6 months (still non-directive)**
 - Pros (not Cons)
 - Emphasize doable
 - Overview of quitting

Advise to Quit, *Non-directive*

Tailor advice to:

Importance of quitting to patient (why?)

Previous answers

- If underestimate risk: enormity of risk
- If pessimistic: avg. quitter relapses 2 - 4 times, thus, “you can too”

Current symptoms

Lifespan phase (e.g., new parents)

Cost of NRT or Zyban

The patient who is ready for **action** -OK to be *DIRECTIVE*-

- Emphasize that it is doable
- Overview specifics of an *Action Plan*:
 - Step #1 — Set Quit Date
 - Step #2 — Using Medications
 - Step #3 — Staying Smoke Free
 - Plan for dealing with temptations
 - Recruit support and encouragement (family, friends)
 - Step #4 — Rehearse response to lapse, document, and *remember what the plan was*
- Remember the average successful quitter made 2 to 4 previous attempts at quitting

Skills for Smoking Cessation



RSSM- 3

Skills

- Setting Quit Date – Individualized
- Coping with Temptations – Key is *specific* plans made *ahead of time* (effective problem solving skills begin with anticipation)
- Relapse prevention
 - Keeping lapses from becoming relapses
 - Avoiding lapses from premature sense of success
- Media Choices
 - Self help (video, web based, self-help manuals)
 - Groups – Freedom from Smoking®
 - Tobacco Quit Line: 877-270-STOP (Wa.St.DOH)
 - 800 – 4 – CANCER for self-help materials
 - ADA – materials for smokers with diabetes

Follow Up and Support

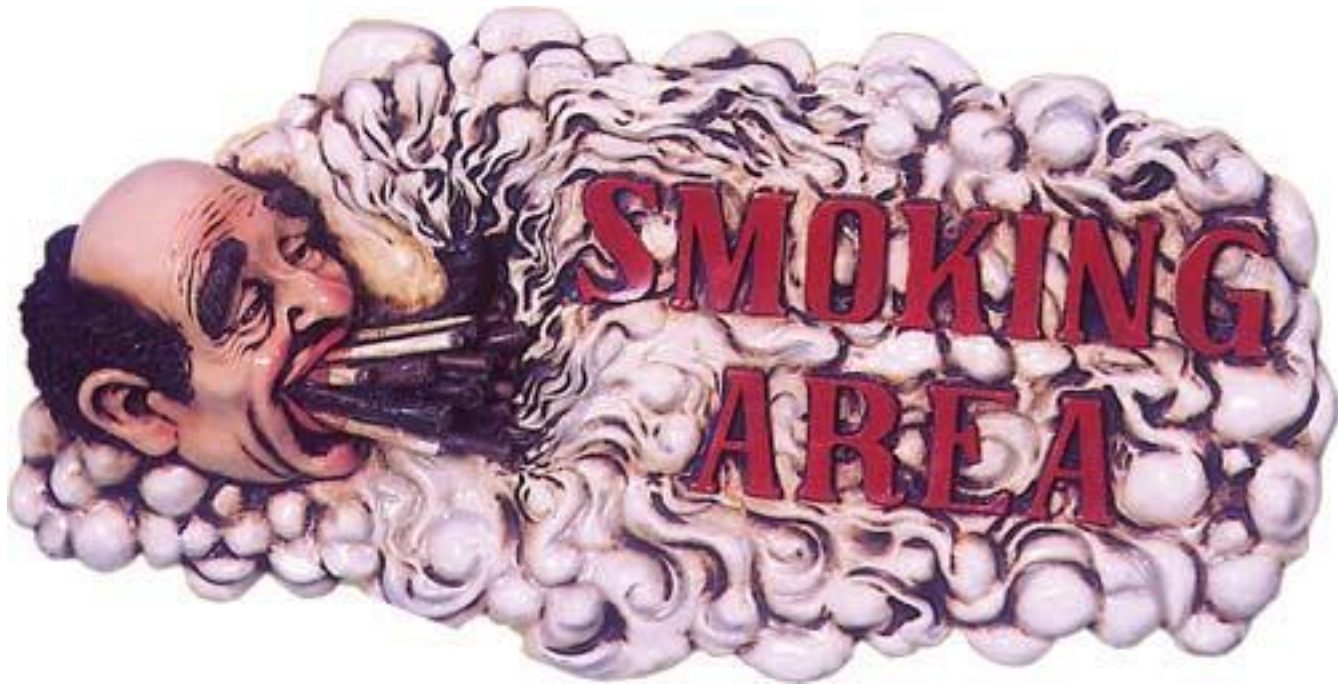


RSSM- 4

Arrange Follow-Up

- Evidence shows this is important but we don't do it well
- Frequency and duration of contact correlates with improved outcomes (sustained beh. change)
- Doesn't matter who- Physician, staff member, volunteer, *Promotora*, CHW, other patients, support groups
- Phone, face-to-face, e-mail, web
- Timing
 - 24 - 48 hours post quit
 - 7 - 14 days
 - Ongoing PRN
- Review action plan, praise, adjust
- St Peter Hospital *Stop Smoking Support Group*
 - (360) 357-5297

Community Resources



RSSM-5

- Individuals are more likely to quit if norms in community support quitting (ex- PROP 901)
- Advertisements, TV/movies-stimulate the quitters' associations with smoking (ex-stressed docs- Abby on ER, Becker, *The Last Holiday*)



- Ongoing support from family and friends is more likely in a community that understands importance of not smoking (ex-North St Louis)

Neighbors for a Smoke Free North Side

Neighborhood and Peer-Based Promotion of
Nonsmoking

24-month program

Run through Grace Hill agency

Steering Committees in each Neighborhood

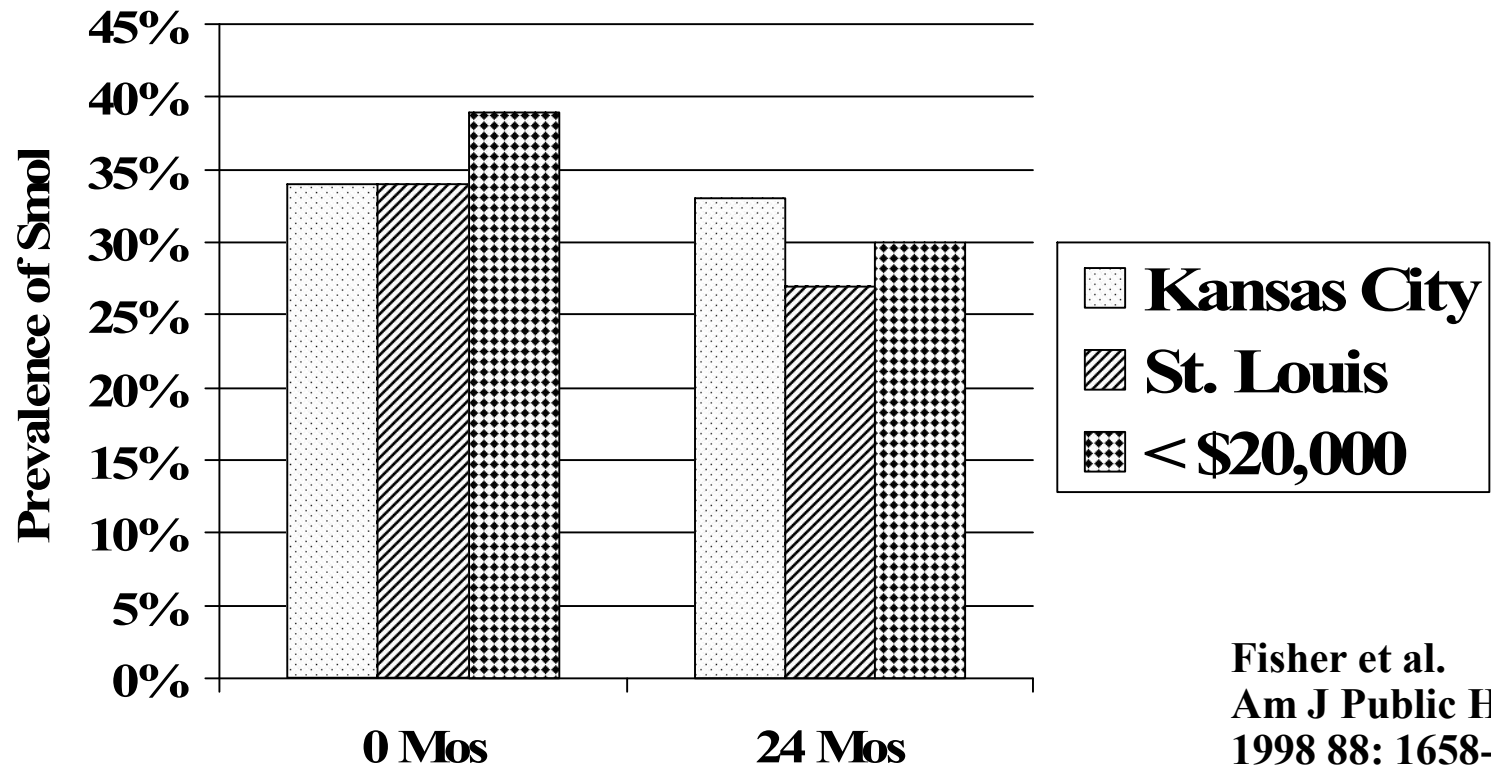
Diverse activities: mass media, door-to-door, self-
help manual, billboards

Local development of materials- e.g., local revision
of ALA brochure featuring neighborhood residents
and their quotations, bill boards with pictures

Neighbors for a Smoke Free North Side

Evaluation by random-digit surveys in

- Kansas City Comparison Neighborhoods
- St. Louis Intervention Neighborhoods
- St. Louis < \$20,000 Annual Income



Continuity of Quality Clinical Care

QUIT SMOKING
for the rest of your life!

Dr. Recommended *Be DONE With Cigarettes*

FINAL SMOKE

- ▶ Stops Mental & Physical Cravings
- ▶ Beats Patches, Gums & Drugs
- ▶ Restores Lost Health & Energy!

CLICK HERE

OUR GUARANTEE

30 DAY Money Back GUARANTEE

Give Final Smoke an honest try.
If you don't quit, you don't pay.

FINAL SMOKE
Quitters Always Win!
The RealSmoke System Guide for Living Smoke-Free

Nicotine-Free

FINAL SMOKE
Dietary Supplement
100 Capsules

FINAL SMOKE
Audio Program

ALL-NATURAL

RSSM- 6

NICOTINE REPLACEMENT

- Gum produces blood levels at 40%
- 21mg patch gives levels of 40-50%
- Ad Lib use of inhaler gives level of 30-35%
- Gum and inhaler give some control over titration of dose
- Inhaler can cause bronchospasm



NICOTINE REPLACEMENT- Does it work?

- Study 1:
 - 305 pts in 10 wk beh. program given patch or placebo patch-
 - At 3 years the quit rates were...
 - 13.8% with patch smoke free
 - 5.2% with placebo smoke free



Nicotine: What dose?

- Study 2
 - 724 smokers randomized to 21, 14, 7mg patches or placebo for 10 weeks
 - Confirmed quit rates at 48 to 62 months:

21 mg patch= 12.4%

14 mg patch= 5.5%

7 mg patch= 4.7%

Placebo= 4.5%



Nicotine: Summary

- Helpful as adjuvant to behavioral approach (i.e.- in the activated patient). Doubles success rate
- Use full-dose patch
- May use gum or inhaler if patient believes it will help (self-titration makes sense)
- Ideal if used for 4 to 6 weeks with 2 to 4 week taper.
- Longer treatment periods have not improved quit rates
- Unfortunately studies suggest <50% of those who remain smoke free at 1 year are smoke free at 8 years

☺ However, those who are smoke free at 8 years have tried 4 times previously with relapse



Bupropion (Zyban)

- Study 3
 - 615 patients randomized to bupropion SR 150mg BID vs placebo

At 7 weeks:

44% with bupropion
19% on placebo

After one year:

23% bupropion
12% placebo



Dose and duration of Zyban: Does it matter?

- Study 4
 - 1500 patients treated with 150mg or 300mg XL daily, or placebo for 8 weeks
 - No difference with quit rates at 1 year
 - More SA's with higher dose (insomnia, poor concentration, tremor, GI upset)
- Study 5
 - 700 treated for a) 7 weeks or b) 1 year
 - At 1 year a) 42% vs b) 51% quit rate
 - Median time to relapse after d/c- a) 65 vs b) 156 days
 - At 2 years quit rates were the same (a-40% & b-41%)

Zyban and Nicotine: Better together?

- Study 6

– 893 randomized to:	At 12 months, %smoke free:
1) Placebo	1) 15%
2) Bupropion- 150mg BID for 2 mths	2) 30%
3) Nicotine- 6 wks @ 21mg with 2 wk taper	3) 16%
4) Both 2 & 3	4) 35%



Other options?

Hope for the future?

- Acupuncture and hypnosis
 - 2002 Cochrane review assessed 22 studies and found no “significant benefit”
- New drugs:
 - Rimonabant, CB1 selective cannabinoid receptor antagonist – phase III trials underway for smoking and obesity
 - NicVAX, a conjugated vaccine that generates anti-nicotine Abs to inhibit nicotine centrally, is in phase II trials

A few words about Smoking and Pregnancy

- The most important modifiable risk factor associated with adverse pregnancy outcomes
- Associated with SAb, placental abruption, PPRM, placenta previa, preterm labor and delivery, and low birth weight
- In populations of women with a high prevalence of smoking, it is estimated that cessation during pregnancy could prevent
 - 10% of perinatal death
 - 35% of low birth-weight births
 - 15% of preterm deliveries

Prevalence in Pregnancy...

- CDC reports decline from 19.5% to 11% from 1989 to 2003, 15% for teens
- However, Univ. of Alabama study showed;
 - 25% screened positive
 - 24% of those who screened negative tested positive for nicotine
 - 50% of those when re-questioned stated they “just quit” when they found out they were pregnant

So who quits?

- Study in Sweden showed 30% quit during pregnancy (a concrete and immediate reason to quit)
 - 18% before or just after first visit
 - 7% by 24 weeks
 - 4% by 3rd trimester
- Risk factors for continued smoking:
 - DSHS
 - Partner who smokes
 - 10 or more per day
 - <12th grade education
 - Coexisting depression

The Clinical Practice Guidelines
(USDHHS) have made
3 recommendations for pregnant
women that smoke:

A level evidence:

- 1) augmented psychosocial interventions that exceed minimal advice
 - 5 to 15 minute intervention with written *quit* material yielded 16.8% quit rate verses 6.6% for 3 minutes of advise or less

USDHHS-

B level recommendation:

- 2) Offer cessation interventions at every visit
 - Although most quit early there is still enough evidence that it should be discussed at most or every visit

USDHHS-

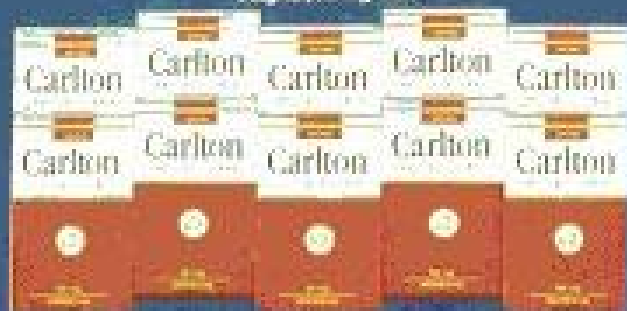
C level recommendation:

- 3) Pharmacotherapy should be considered when a pregnant woman is otherwise unable to quit, and when the likelihood of quitting, with its potential benefits, outweighs the risks of the pharmacotherapy and potential continued smoking
 - Agency of Health Care Policy and Research advocate the use of adjunct pharmacotherapy for all smokers unless contraindicated and state “these therapies remain underutilized, particularly in pregnant patients, due to concern over the potential for adverse fetal effects”
 - ACOG advocates targeting pregnant women “only when non-pharmacologic treatments have failed”

After pregnancy...

- 90% relapse within first year
- Stress, poor coping skills, smoking partner, depression/"blues" are associated with relapse
- No effective strategies to prevent relapse (most who quit see it as temporary)
- Start over...

1 mg. tar, 0.1 mg. nic.



10 packs of Carlton
have less tar than 1 pack
of these brands.



IT'S ALL BY CHOICE OF CIGARETTE
Carlton is lowest.

Carlton CIGARETTES
© 1991 Philip Morris Inc.

THE "TAR" AND "NICOTINE" CONTENTS LISTED ON CIGARETTE PACKS ARE MEASUREMENTS OF THE TOTAL AMOUNT OF TAR AND NICOTINE IN THE CIGARETTE.

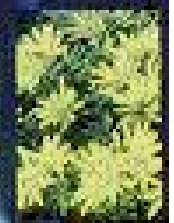
© Philip Morris Inc. 1991

NOV 1992 \$3.99

LIFE

A Cure for Cancer?

The real story behind Taxol, the 'miracle drug' from the yew tree



Good Night, Johnny

As the curtain closes on TV's greatest career, we remember the best of Carson

