

Adolescents and smoking cessation made easy?

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Australian Smoking

ABS National Health Survey 2007-8:

- >18 yrs 19% current daily smokers
- Decreased from 21% in 2004-5
- > 15yrs 18% current daily smokers
29% ex smokers
52% never smokers



AIHW National Drug Strategy Household Survey 2007 : Smoking

	14-19	20-29	30-39	40-49	50-59	60+
Daily males	6	23.7	22.7	21.8	20.1	10.8
Never smoked	89.7	58.6	49.9	45	40	39.8
Daily females	8.7	19	18.9	20.6	15	8.8
Never smoked	86	52.3	52.1	49.2	56.6	63.1

>6,500 people in NSW died from smoking-related illness in 2007



Adolescent Smoking

- 5.6% of 12-19 year olds are daily smokers
- Of 12-15 yr olds 2.5% females v 1.5% males 2.0%
- Of 16-17 yr olds 7.4% females v 4.1% males 5.7%
- Of 18-19 yr olds 13.7% females v 11.6% males 12.6%
- 14–19 year olds females were more likely to be daily smokers (8.7%) than males (6.0%)

AIHW 2007



AIHW National Drug Strategy Household Survey 2007 : Smoking Demographics

>14 years daily, weekly or more than weekly smoking:

- Inversely related to the **socioeconomic status** of where they lived

25.9% for lowest status versus 13.9% for highest status:

- Smoking was also related to **remoteness**
- 25.0% of people living in Remote and Very Remote areas smokers
- 18.0% for people in Major Cities

Aboriginal and Torres Strait Islander peoples were more likely than other Australians to smoke:

- 34.1% versus 19.0%



AIHW National Drug Strategy Household Survey 2007

- **18% Australians >14 daily or weekly smokers**
- **18% males and 15% females daily smokers**
- **Rates peak at 20-29 yrs**

Quitting reasons:

- **Health 45%, cost 36%, fitness 27%, family/friends 25% , ETS effects 21%**



Factors which motivated change to smoking behaviour

Smokers aged 14 years or older who reported a change in behaviour, by sex, AIHW 2007 (per cent):

Factor	Males	Females	Persons
• Affecting health or fitness	45.7	44.2	45.0
• Costing too much	34.5	37.2	35.8
• Wanted to get fit	29.5	25.1	27.4
• Family/friends asked me to quit	25.6	24.4	25.0
• Worried it was affecting the health of those around me	21.3	21.4	21.4
• Anti-smoking advertisements	15.6	15.5	15.5
• Health warnings on packets	19.1	19.7	19.4
• Advice from doctor	14.8	12.8	13.9
• Smoking restrictions in public places	13.2	14.2	13.7
• Pregnant or wanting to start a family	2.7	11.3	6.8
• Smoking restrictions in the workplace	9.2	6.0	7.7
• QUIT line	2.2	2.7	2.4
• Tobacco Information Line (advertised on packet)	0.4	1.1	0.7
• Other	11.8	13.1	12.4

Proportion of people who successfully quit who believe that quitting aids contributed to their quit attempt

Note: Respondents could nominate more than one aid

Source: CBRC Victorian Household Survey Brennan et al, 2007



NSW School Students Health Behaviours Survey 2008

Of 12-17 yr olds:

- 25.3% had ever smoked
- 17% had smoked in last 12 mths
- 4.7% had smoked in past 7 days
- 58% smokers had tried to quit in past 12 mths
- 91.2% smokers thought they would not be smoking in 12 mths time



Adolescent Smoking

- 11-15 yrs average smoker initiates smoking
- Research suggests that if do not start smoking as teenager then unlikely to start
- 75% of teenagers who smoke regularly will continue smoking as adults
- Smoking as teenagers smoke for longer, more heavily
- Teen onset have higher risk of tobacco-related disease later in life

Adolescent tobacco use is associated with:

- Parental smoking
- Lower parental education/ lower SES
- single parent homes
- Problems in parenting
- Peer smoking
- Personality traits
- Anxiety/ depression

Transition from experimentation to dependence...as few as 7 cigarettes to develop dependence

Smoking Prevention

- **Cost:** most effective esp low income groups
- **Smoke free policies:** de-normalises smoking
decrease in youth smoking
- **Mass media public education:** negative emotions more effective
- **Ban tobacco advertising/promotion:** causal effect demonstrated > for youth
- **Packaging:** mobile billboard v generic



Prevention and cessation are intertwined. Youth campaigns are most effective when:

- Complemented by school and community-based strategies
- Supported by a comprehensive tobacco control program
- Broader non-smoking norms and attitudes
- Reciprocal relationship between mass media and other prevention strategies
- Mass media campaigns enhance the effectiveness of other interventions

Focus has been on prevention rather than cessation :

- Lack of **evidence** on what works best for teen cessation
- Counselling** of vital importance
- Schools:** establish clear rules banning smoking on school grounds by students, teachers and visitors
- Community youth services:** develop smoke free policies support smoking cessation routine brief intervention

Adolescent Smoking Cessation

A recent review of adolescent cessation studies:

- **Modest success (12%)** compared to control groups (7%)
- Equivalent to adult minimal intervention programs
- **Motivational enhancement, cognitive behavioural techniques and social influence** were most effective
- School based clinics and programs that extended for **at least five sessions** were more effective than community-based and single session interventions



Adolescent Smoking Cessation

4% of callers to the Victorian Quitline are under 18:

- Protocols for young callers developed as part of the set of national minimum standards

Adolescent services:

- Focus on the **immediate** harmful effects
- Issues of **appearance**
- **Youth-specific reasons** for smoking such as rebellion or aspiring to adulthood
- Recognising **differences in patterns** of smoking eg infrequent and situationally dependent smoking
- Referring young people to **youth-specific resources** especially internet sites



Adolescent Smoking Cessation

Pharmacotherapy for adolescents:

- Bupropion and Varenicline are not officially approved for use by smokers under 18
- NRT is recommended in conjunction with counselling program
- NRT use by an adolescent(12 to 18 years) consider:
 - Nicotine dependence
 - Motivation to quit
 - Willingness to accept counselling



Tobacco Dependence

Signs of tobacco addiction may occur rapidly in adolescent smokers at low or intermittent levels of consumption:

- Using the 'HONC' loss of autonomy over smoking occurs on average within **two months** after the onset of smoking
- **66% with any HONC symptom** were not smoking on a daily basis
- >1 symptoms of dependency correlated with:
 - Increased consumption
 - Quitting more difficult
- No HONC symptoms: quit smoking far more readily



Adolescents and Nicotine

Hooked On Nicotine Checklist (HONC):

- 1) Have you ever tried to quit, but couldn't?
- 2) Do you smoke now because it is really hard to quit?
- 3) Have you ever felt like you were addicted to tobacco?
- 4) Do you ever have strong cravings to smoke?
- 5) Have you ever felt like you really needed a cigarette?
- 6) Is it hard to keep from smoking in places where you are not supposed to, like school?

When you tried to stop smoking...(or, when you haven't used tobacco for a while...)

- 7) Did you find it hard to concentrate because you couldn't smoke?
- 8) Did you feel more irritable because you couldn't smoke?
- 9) Did you feel a strong need or urge to smoke?
- 10) Did you feel nervous, restless or anxious because you couldn't smoke?

Refer to : 30 month follow up data from the DANDY study DiFranza J, Tob Control 2002;11:228-35

Development of symptoms of tobacco dependence in youths: 30 month follow up data from the DANDY study

DiFranza J, Savageau J, Rigotti N, Fletcher K, Ockene J, McNeill A, et al.
Tob Control 2002;11:228-35.

Using the HONC scale smokers (aged 12-13 and followed up over 30 months):

- **Ever tried smoking:** 40% reported symptoms of dependence
- **Inhaling tobacco smoke:** 58% reported symptoms of dependence
- **>1 symptoms of dependence:** 18% reported symptoms soon after first use
33% reported symptoms when smoking once monthly,
49% reported symptoms with weekly smoking,
70% recorded symptoms of dependency before the onset of daily smoking
- **Girls** were more likely to report experiencing symptoms of dependency than boys experience them earlier in their smoking career (median latency 21 days c/w 183 days for boys)
- **Younger smokers** (aged 10–18) are around twice as likely to report that 'it's really hard to quit' than older smokers (aged 19–22) with the same consumption level

Adolescents and Nicotine

- Increased youth susceptibility to tobacco dependence may be due to the comparative immaturity of the adolescent brain, leading to greater neurological disruption in response to nicotine
- Adolescents who experience nausea, dizziness or relaxation when they initially smoke a cigarette are much more likely to develop dependence symptoms



Role of Health Care Professionals in a Paediatric Setting

Parents and adolescents accept:

- Pediatrician's role to counsel them re effects on their child's or their own health
- Recommendations re cessation advice and quitlines as part of the visit
- More important at time of hospitalisation esp. resp illness i.e. 'teachable moment'



Australian Smoking Cessation Guidelines

- Evidence based approach
- 5As Brief Intervention
- Supported by RACGP ,International guidelines (Richard D. Hurt et al Director, Nicotine Dependence Center, Mayo Clinic, Rochester, J Clin Cancer 2009;59:314-326. © 2009 American Cancer Society, Inc.)
- Cochrane reviews for doctors, nurses
- Ask, Assess, Advise, Assist, Arrange



Treating Tobacco Dependence in a Medical Setting

Richard D. Hurt et al Director, Nicotine Dependence Center, Mayo Clinic, Rochester, J Clin Cancer 2009;59:314-326. © 2009 American Cancer Society, Inc.

The US Public Health Service Guideline for Treating Tobacco Use and Dependence 2008 Update recommends:

- Tobacco use as a chronic medical disorder;
- Behavioral counseling and the use of 1 or more of the 7 approved medications
- Utility, efficacy, and reach of telephone quit lines

Evidence-based treatment for tobacco- dependent patients is a Challenge for busy physicians:

- A team approach including trained and **certified tobacco treatment specialists (TTS)** provides an efficient treatment model.
- TTS represent a new and growing part of the health care team
- Effective treatment of tobacco dependence requires tailoring, and often intensifying, interventions (both counseling and pharmacotherapy) to meet the needs of the individual patient)

Brief Interventions

Brief interventions and SC treatment are amongst most cost effective of all disease

Interventions:

- Brief advice requires 5 minutes , increases long term nonsmokers by 2% with a cost of £248 per life saved
- NHS Stop Smoking Services since 1999
- Incentives to provide brief advice



Mortality in relation to smoking: 50 yrs observation on male British Doctors

Doll et al BMJ 2004:

- Quitting at age 30 yrs: no increase in mortality rates
- Quitting at age 50 yrs: Halves mortality rates



Smoking Cessation Training

- Generally inadequate and variable
- Medical students: according to curricula
- Residents in UK : majority felt unable to deliver SC interventions in accordance with national guidelines
- UK Dr survey: 15% had received SC training
- Australian Respiratory Trainees: no formal curriculum however by default are Tobacco Treatment Specialists



Barriers to Brief Intervention (BI)

GP's report not doing brief interventions with
31% of smoking patients:

Cited barriers

- Lack of time, effectiveness, ability, harming dr/pt relationship

Psychological factors

- Not feeling social pressure to do so
- Not feeling able to deliver BI once per year
- Not investing sufficient effort into BI



How good are Paediatricians at providing brief interventions for Adolescents who smoke?

Milne B, Towns S.J. Do paediatricians provide brief intervention for adolescents who smoke?
Journal of Paediatrics & Child Health.
43(6):464-468, June 2007.



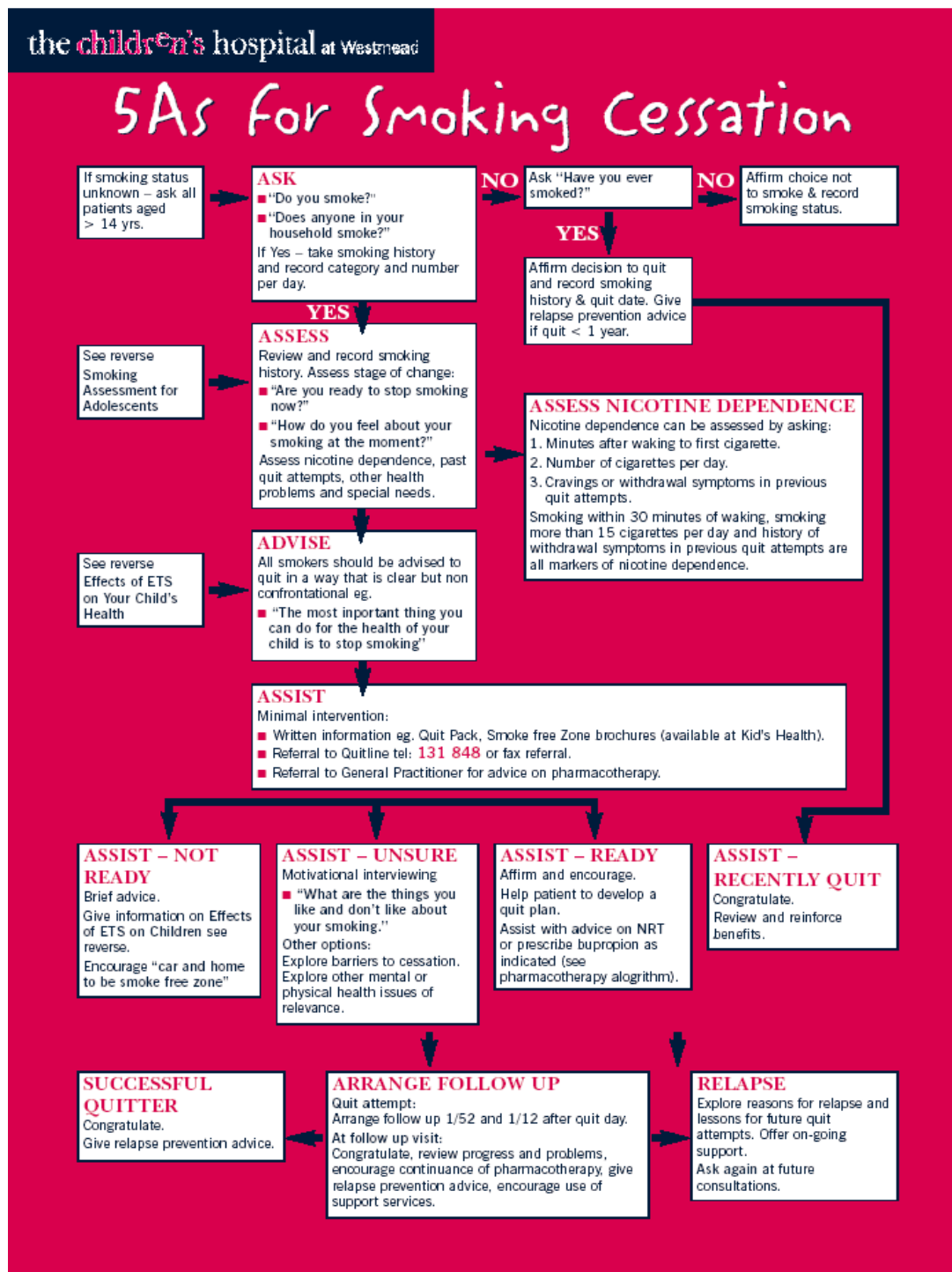
Aim

- Describe the self-reported practice of paediatricians in brief interventions for Adolescents who smoke
- Compare current practice with knowledge, skills and confidence in brief interventions
- Assess the effectiveness of a training program in brief interventions on clinicians' self reported practice.



Training Program

- Information about smoking
- Evidence and effectiveness of Brief interventions and NRT
- 5 A's flowchart and script
- Resource pack
- Referral forms for quit line
- Patient information on tobacco



Results

- 57 clinicians completed questionnaires
 - 41 (72%) senior medical staff
 - 16 (28%) junior medical staff
 - 97% clinicians see adolescent patients
- 55 (96%) of clinicians believe it is important to ask about smoking in a consultation
- There was no significant difference between self reported practice and last inpatient or outpatient practice



Paediatricians' use of 5As for teenagers who smoke

Routinely asked questions 5 A's	All or most of the time % (n=57)
Ask	54%
Assess	44%
Advise	58%
Assist	16%
Arrange	18%

Barriers inhibiting discussion of smoking with teenagers

Barriers preventing discussion about smoking	46% n=57
It is not relevant to my consultation	16
Lack of time	14
Pessimistic about intervention	10.5
Lack of confidence	9
Don't know how to institute strategies	9
Don't know what to say	8
Fear of upsetting parents	9
Not my responsibility	2

Comparing skills, knowledge and confidence with 5As

Variable	Ask	Assess	Advise	Assist	Arrange
Understand stage of change model	ns	ns	ns	p<0.01	p<0.05
Skill in brief intervention	ns	P<0.05	p<0.01	p<0.001	p<0.01
Skill in motivational interviewing	P<0.05	P<0.05	P<0.01	ns	P<0.001
Knowledge and best practice of NRT	ns	ns	ns	P<0.001	P<0.001
Skills in relapse prevention	ns	P<0.01	P<0.01	P<0.001	P<0.01

Comparing skills, knowledge and confidence pre and post training

Variable	Pre training n=57	Post training n=28	P value
Understand stage of change model	35%	62%	Ns
Skill in brief intervention	23%	58%	P<0.01
Skill in motivational interviewing	36%	54%	Ns
Knowledge and best practice of NRT	15%	46%	P<0.01
Skills in relapse prevention	18%	28%	Ns

Summary and Implications

Clinicians who are more confident in the following:

- Brief interventions
- Motivational interviewing

were more likely to offer brief interventions using 5As

Assessment 1 month post training

- Improved skills in BI and knowledge of NRT
- No change in self-reported practice using 5As



Summary and Implications

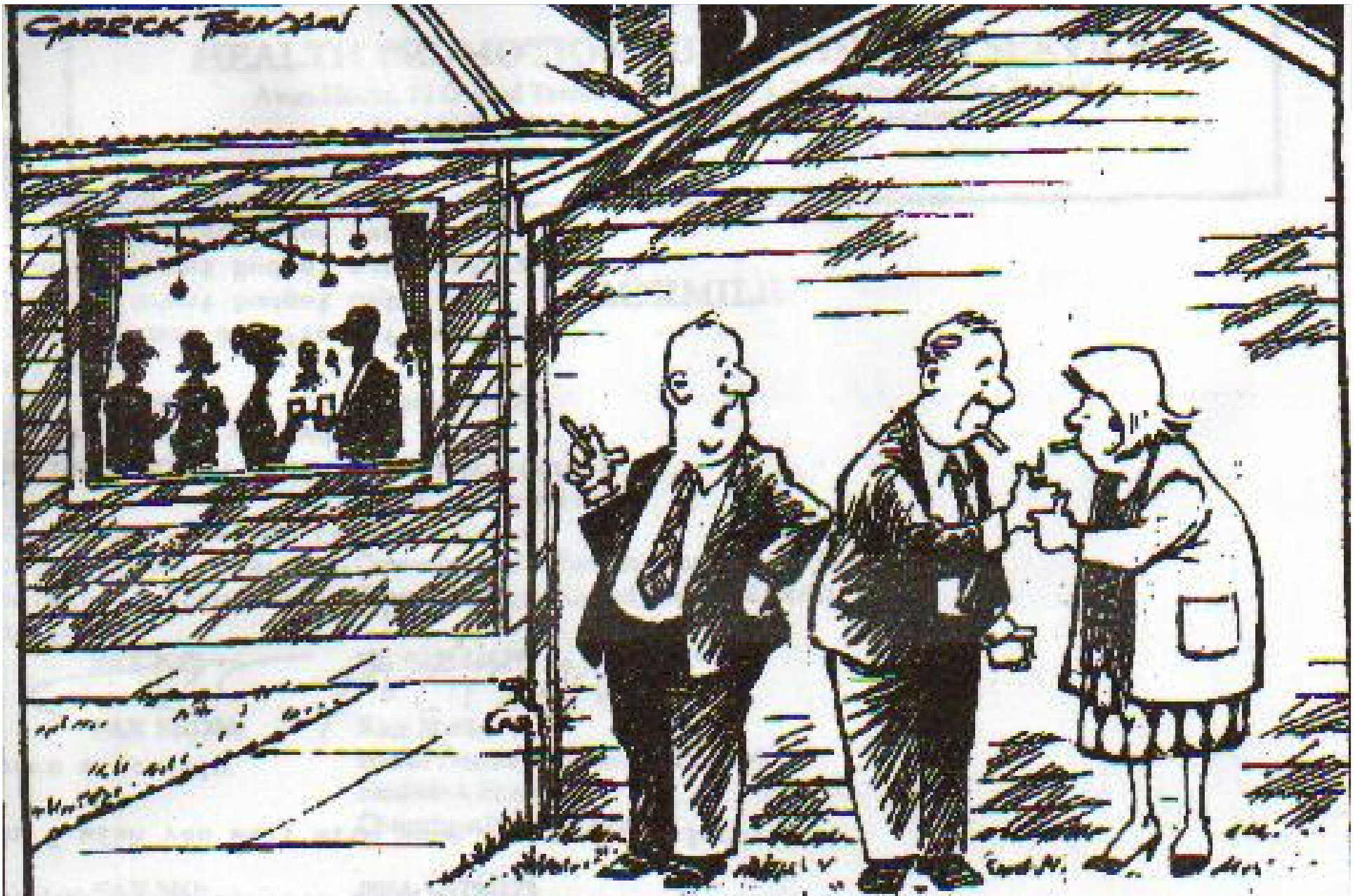
Targeted training for clinicians in BI increases knowledge and confidence in:

- Brief Intervention skills
- Evidence and best practice of NRT

Need to institute organisational changes to facilitate increased intervention



GARECK BENJAN



Y'KNOW, THIS IS HOW I STARTED THIS DAMNED HABIT 40 YEARS AGO...
OUT BEHIND THE GARAGE !!

E-learning Journey at CHW


the children's hospital at Westmead

Smoking Cessation Brief Interventions

Quit
Previous
Next
Menu

SMOKING ASSESSMENT FOR ADOLESCENTS

1. What grade are you in at school?
2. Have you ever smoked a cigarette?
 Yes No
3. If you smoke cigarettes, do you smoke:
 Daily? How many cigarettes do you smoke a day? _____
 Weekly? How many cigarettes do you smoke a week? _____
 Monthly? How many cigarettes do you smoke a month? _____
 Rarely? How many cigarettes do you smoke a year? _____
4. When was the last time you smoked a cigarette?
a. Within the last week
b. Within the last month
c. Within the last year
d. Greater than 1 year
5. Does your mum smoke?
 Yes No
6. Does your dad smoke?
 Yes No
7. Do you have any brothers or sisters who smoke?
 Yes No
8. What percentage of your friends smoke cigarettes?
a. None
b. Less than half
c. More than half
d. Almost all my friends



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Smoking Cessation Brief Interventions

Quit
Previous
Next
Menu

Facing the Facts

Can you name five parts of the body that may be affected by smoking?
Type in one body part and then press enter.



- Hair: loss
- Brain: stroke
- Eyes: macular degeneration
- Skin: ageing, wrinkles, wound infection
- Mouth & Pharynx: cancer, gum disease
- Lungs: cancer, emphysema, pneumonia
- Heart: coronary artery disease
- Stomach: cancer, ulcer
- Pancreas: cancer
- Arteries: peripheral vascular disease
- Bladder: cancer
- Reproductive organs: Men - impotence
Women - cervical cancer, early menopause, irregular & painful periods
- Bone: osteoporosis

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Smoking Prevalence and Health Effects
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Image from Smoking Cessation: Guidelines for Australian General Practice
Australian Government Department of Health and Ageing June 2004



Background

- Launched in January 2008
- Evidence-based approach to smoking cessation brief interventions by health professionals
- Multidisciplinary team approach, with design of the e-learning program from the Education Centre



Aims

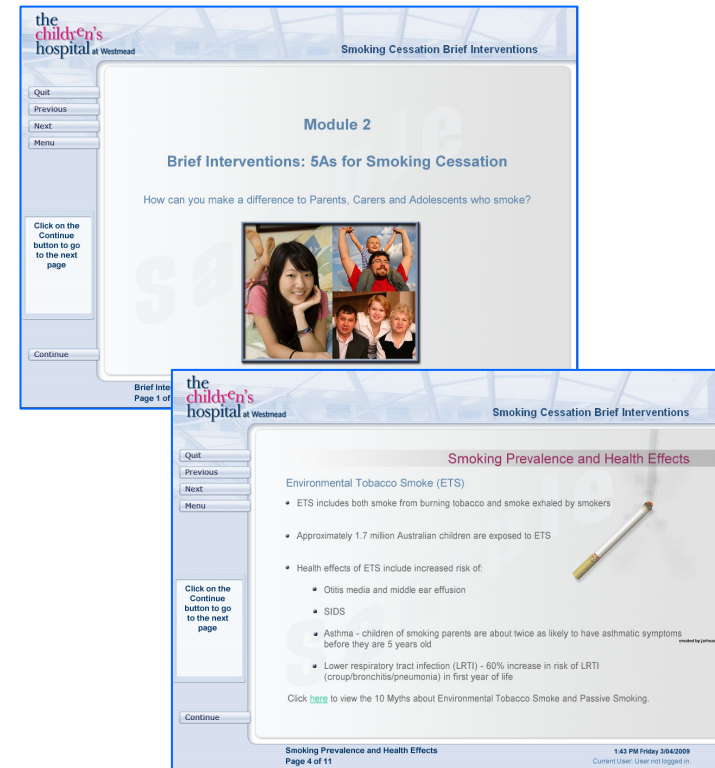
To develop an education program for health professionals to:

- Assist adolescents, parents and carers to improve their health with smoking cessation
- To encourage brief interventions as part of everyday clinical practice
- To increase confidence and knowledge in providing simple advice on the health effects of smoking and to give assistance on smoking cessation
- In line with NSW Health and CHW directives to promote and work towards a smoke free workplace



Objectives

- To increase knowledge of the 5As of Smoking Cessation Brief Interventions
- To increase confidence in performing Smoking Cessation Brief Interventions
- To provide Smoking Cessation Brief Intervention resources and ongoing educational support



E-learning Focus: paediatrics, adolescents, parents & carers

- Combination of self directed learning package and optional tutorial
- Interactive with different adult learning styles
- 30 minutes to complete
- Flexibility to start and stop the module work at any time

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Smoking Cessation Brief Interventions

Brief Interventions: 5 As for Smoking Cessation

What is a Brief intervention?: The 5As for Smoking Cessation

Below are the five steps used to conduct a brief intervention for smoking cessation.

- Step 1
Ask and identify the smoker
- Step 2
Assess willingness to quit
- Step 3
Advise all smokers to quit
- Step 4
Assist the patient to quit
- Step 5
Arrange follow up contact

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Brief Interventions: 5 As for Smoking Cessation
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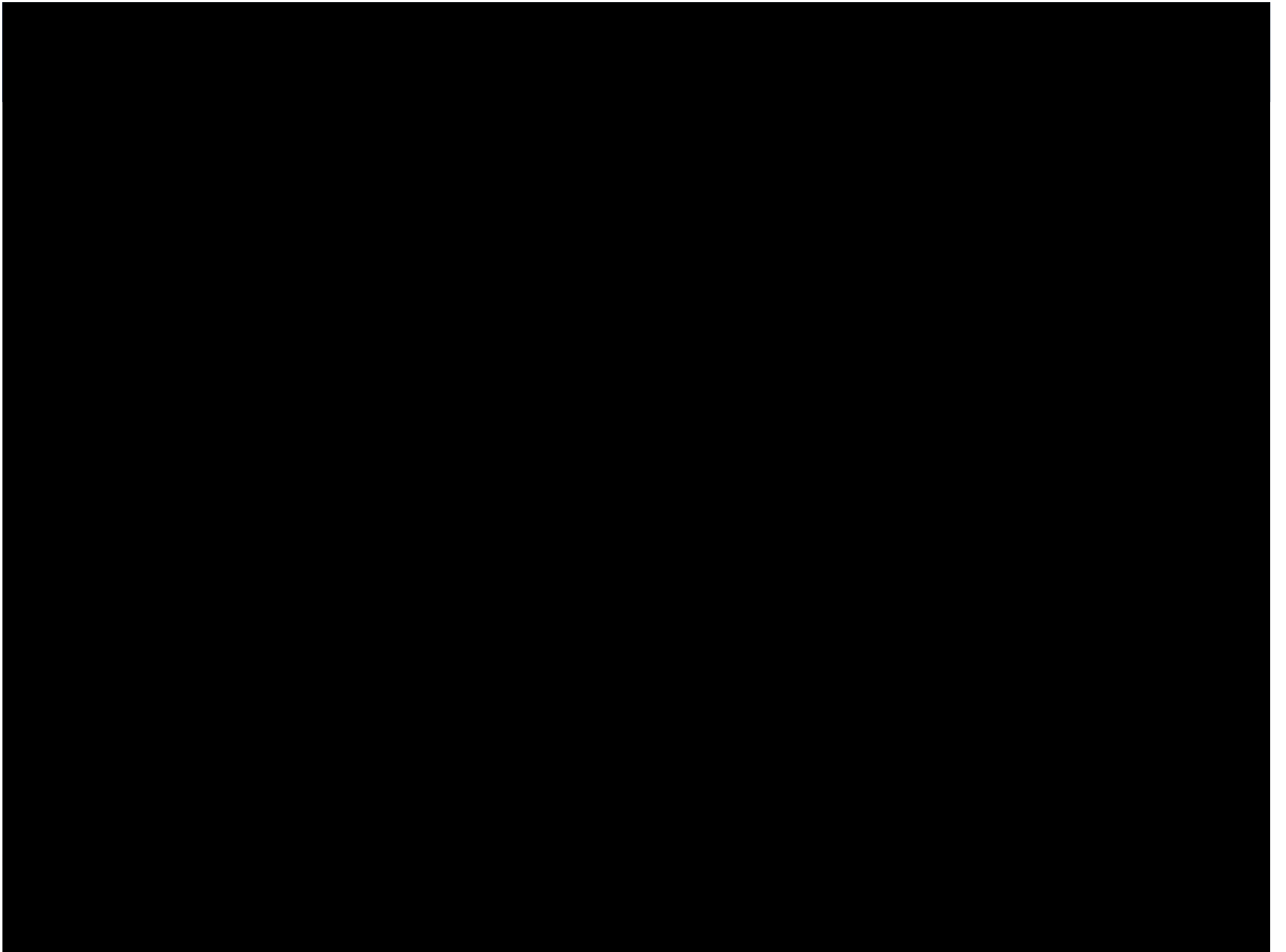
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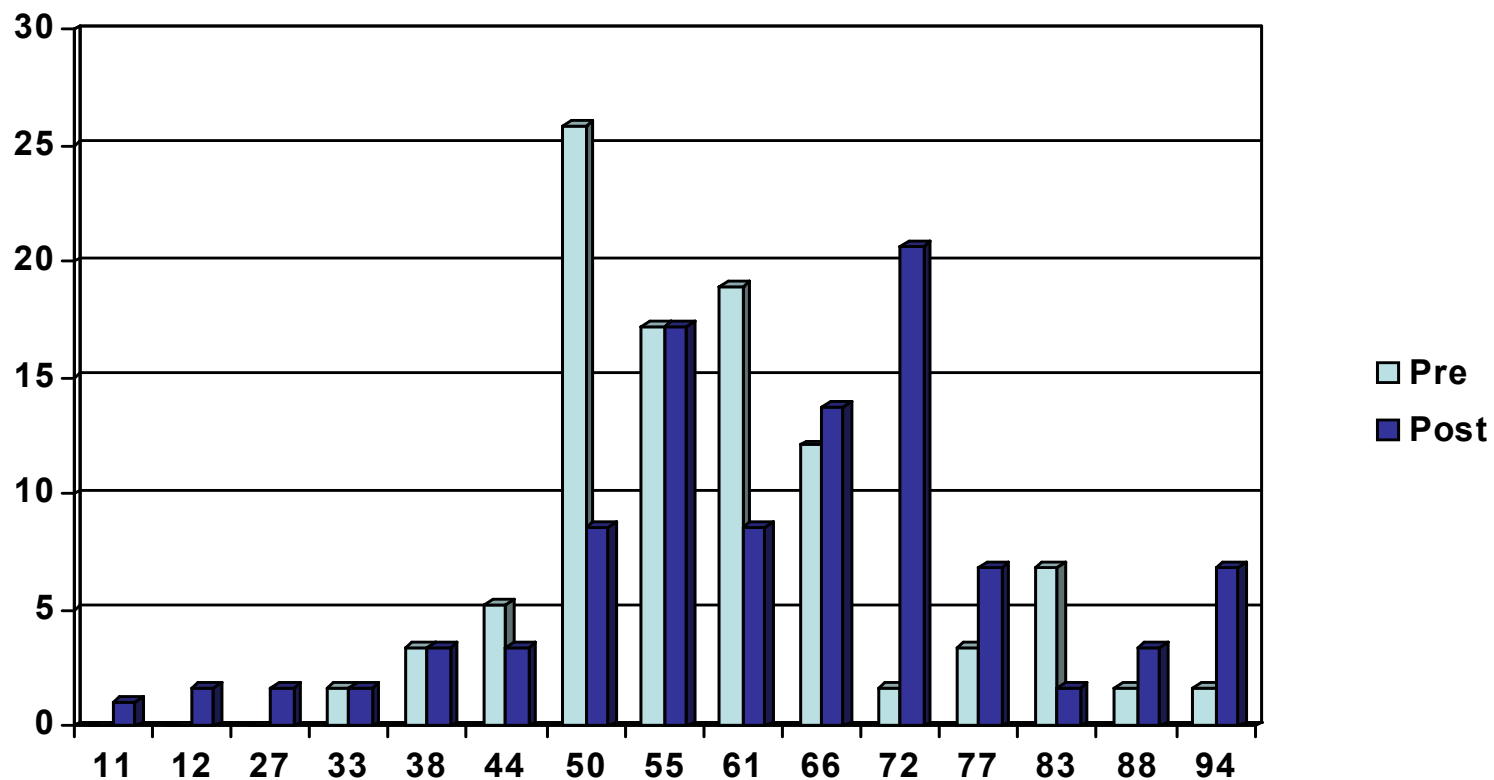
Overview of the e-learning package?

- 24 pre and post assessment questions on knowledge of smoking cessation and identify current clinical practice
- 4 interactive modules reinforcing knowledge gained, with a focus on:
 - Smoking and health effects
 - Brief interventions: *The 5As of smoking cessation*
 - Adolescents and smoking
 - NRT and pharmacotherapy
- Videos demonstrating a nurse engaged in a brief intervention scenario with an adolescent and a parent



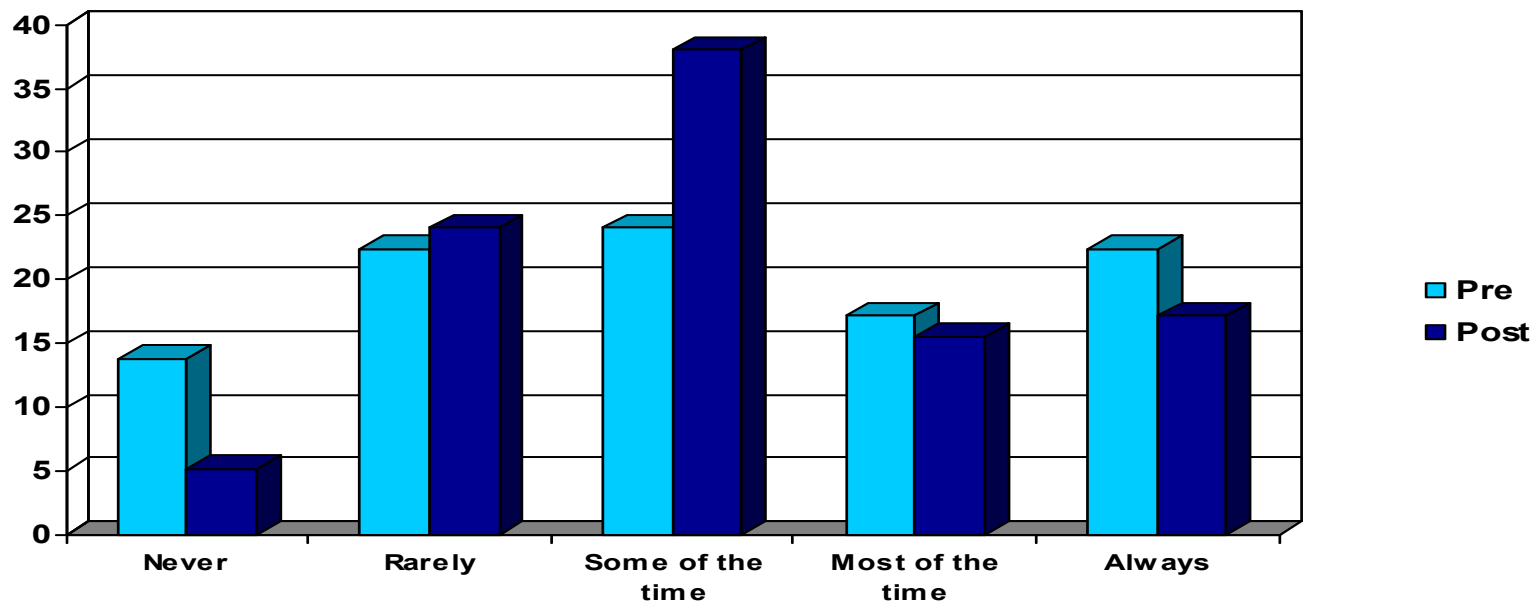


Pre to Post Knowledge Questionnaire Results

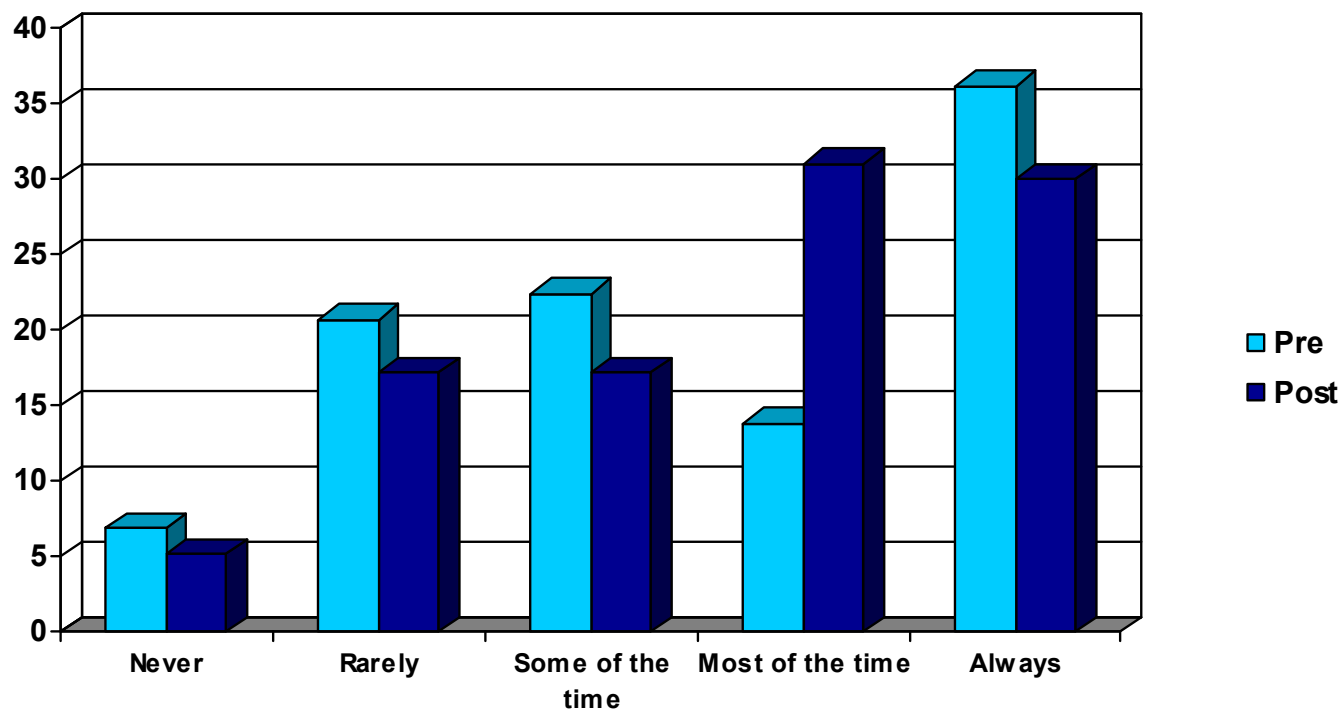


Pre to Post Clinical Practice Results

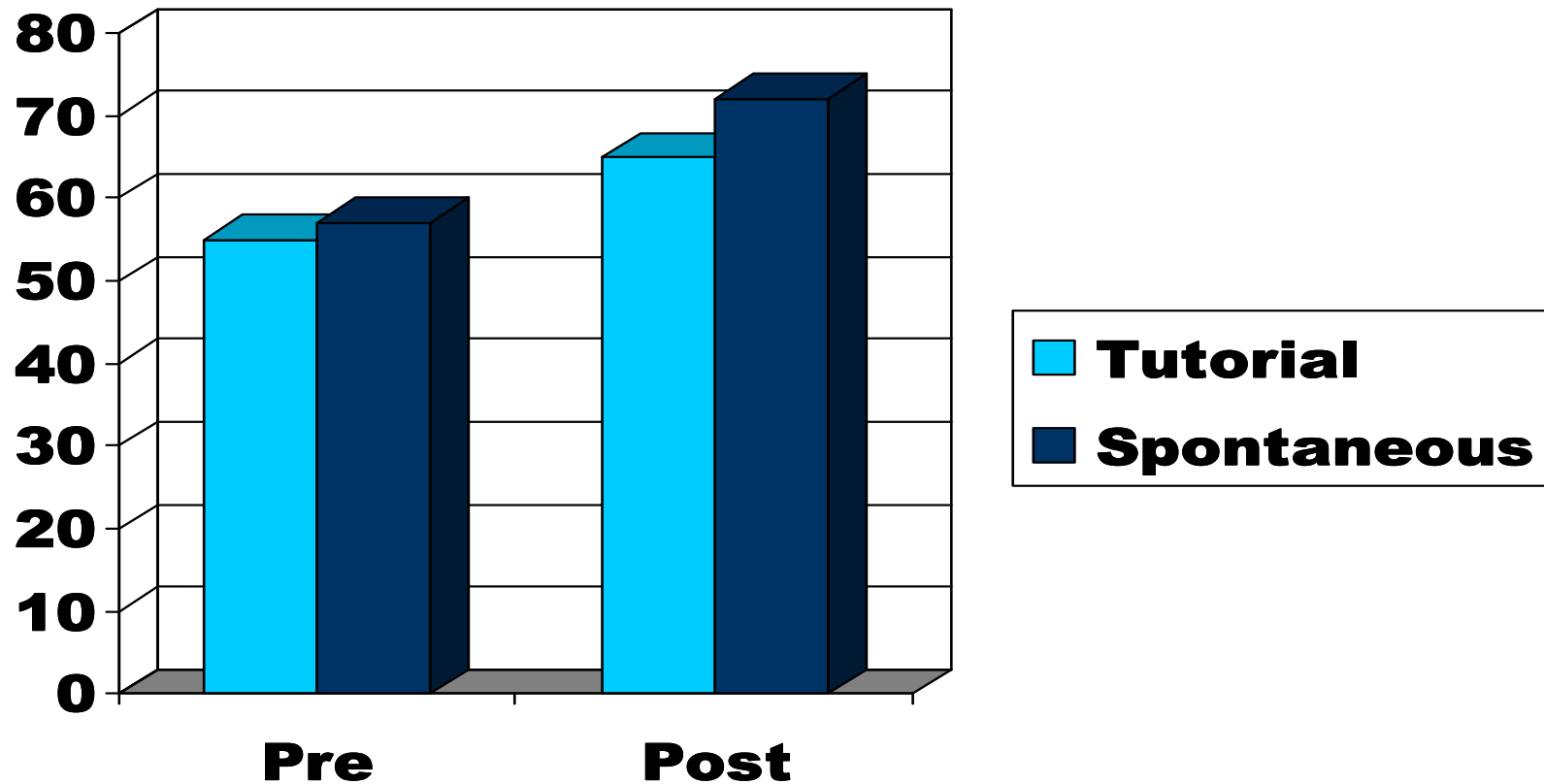
Question 2: Do you routinely ask parents if they smoke?



Question 3: Do you routinely ask adolescents if they smoke?



Comparisons of Tutorials vs. Spontaneous Users



Spontaneous users the package score increased from 10.78 SD±2.38 to 11.73 SD±2.88. This improvement was statistically significant ($p=0.014$)

Knowledge:

- The average scores increased significantly from 10.68 SD±2.31 pre-package to 11.68 SD±2.80 post-package (p=0.002) with 60% participants improving their score

Clinical practice:

- The results demonstrated that the e-learning package does improve the frequency which health professionals **ask, assess, advise**, but assist and arrange follow-up for smoking cessation not statistically significant

Barriers

- Motivating staff
- Mandatory e-learning packages
- IT issues
- Time
- Retention of information
- Completion of the post questionnaires

Initiatives

- Access for other health professionals
- Development and implementation of strategies
- Systematic update of e-learning package and resources



Smoking Habits of Parents attending CHW

Aims:

- Establish smoking habits of parents, knowledge and attitudes to quitting
- Evaluation of the e-learning smoking cessation education package

Methods:

- Questionnaire
- Demographics
- Smoking history and habits
- Readiness to quit
- Smoking cessation information
- Extended family smoking habits

Results

102 surveys with 100 returned:

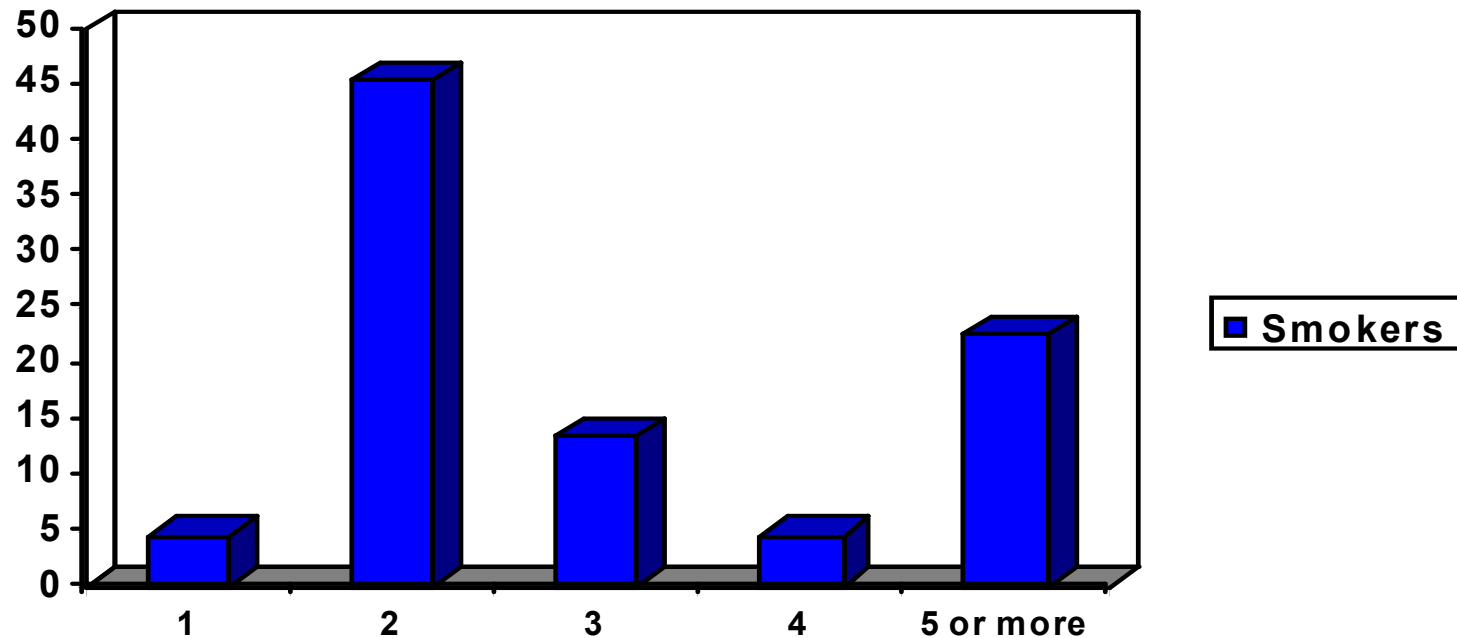
- 49% inpatients, 51% outpatients
- 67 females, 33 males(average age 33.5)
- 22% current smokers
- 29% ex smokers
- 49% non smokers

Parental smoking & respiratory illness:

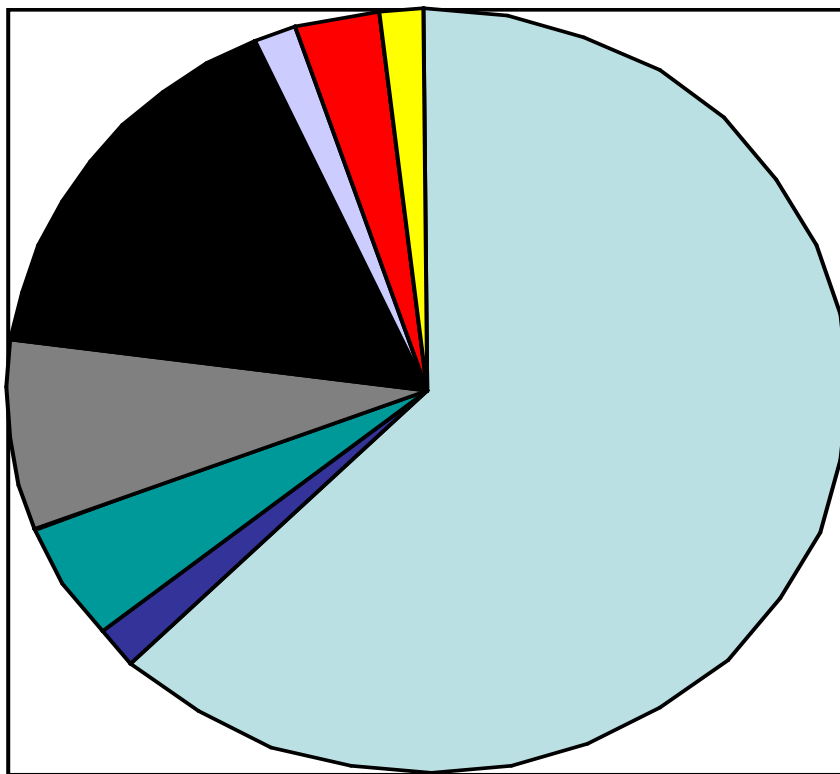
- 41% smokers had children with respiratory illness
- Multiple quit attempts

Smoking Cessation Quit Attempts

- 68% had tried to quit



Smoking Cessation Methods



- Cold Turkey
- Talking to GP
- QUITLINE-Phone line
- QUITLINE-Website
- NRT-Gum
- NRT-Patches
- NRT-Lozenges
- NRT-Nicotine Inhaler
- CHAMPIX
- ZYBAN



Preparedness to Quit

- 82% prepared to quit within the next 30 days
- 39% children in the study exposed to ETS in the home
- 8% exposed to more than 1 smoker

82% parents rated quitting smoking as very important or important

Cold turkey commonest method used:

Mothers:

- Failure= stress
- Motivation =child's health

Fathers:

- Failure = weight gain & withdrawal
- Motivation = their own health

Conclusions

- Parents who smoke want to quit
- High prevalence of ETS exposure
- Significantly higher smoking rates in parents of children with respiratory illness

Opportunity for education and brief advice



Smoking Cessation Training Team

- **Dr. Sue Towns, Head, Department of Adolescent Medicine (Chair)**
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- **Sara McGregor, CNC RSS, Respiratory Medicine**
- **Lauren Cohen, Health Promotion Officer, Kids Health**
- **Erin Simmonds, Health Promotion Officer, Kids Health**
- **Judy Longworth, Pharmacist, Psychological Medicine**
- **Caren Beer, Administration Co-ordinator, Education Centre**
- **Dr. Paul Robinson, Respiratory Fellow, Respiratory Medicine**
- **Popi Zappia, Teenlink Psychologist Adolescent Medicine**
- **Dr. Stewart Birt, Adolescent Addiction Medicine Staff Specialist**



