



## The effectiveness of pictorial warning on cigarette packs on the initiation of smoking and quitting intentions among school children

Hala Alaouie , MPH  
 Research Assistant  
 Dept of Health promotion and Community Health  
 Faculty of Health Sciences  
 American University of Beirut

1<sup>st</sup> ICPH  
 Tabriz, Iran  
 May 18, 2011

## Outline

- ❖ Research team
- ❖ Background
- ❖ Objectives of the study
- ❖ Methodology
- ❖ Results
- ❖ Challenges
- ❖ Conclusion

## Research team

### Rima Nakkash, DrPH

Assistant Professor of Research  
 Department of Health Promotion and  
 Community Health  
 Center for Research on Population and Health  
 Faculty of Health Sciences  
 American University of Beirut  
 Beirut, Lebanon

### Rima Afifi, PhD

Professor  
 Department of Health Promotion and  
 Community Health  
 Center for Research on Population and Health  
 Faculty of Health Sciences  
 American University of Beirut  
 Beirut, Lebanon

### Hala Alaouie, MPH

Research Assistant  
 Department of Health Promotion and  
 Community Health  
 Center for Research on Population and Health  
 Faculty of Health Sciences  
 American University of Beirut  
 Beirut, Lebanon

### George Nahhas, MPH

Research Assistant  
 Department of Health Promotion and  
 Community Health  
 Center for Research on Population and Health  
 Faculty of Health Sciences  
 American University of Beirut  
 Beirut, Lebanon

## Background

### Background 1 Prevalence

- ❖ Tobacco use is the leading cause of morbidity and mortality in the World <sup>(1)</sup>.
- ❖ By 2030:
  - ❖ 10 million deaths will have been associated with tobacco use <sup>(1)</sup>.
  - ❖ 70% of these deaths occurring in developing countries <sup>(1)</sup>.

### In Lebanon:

- ❖ Among adults:
  - ❖ 35% of females smoke cigarettes
  - ❖ 46% of males smoke cigarettes

*this suggests a **narrowing** of the gap between men and women <sup>(2)</sup>.*
- ❖ Among health professionals:
  - ❖ over 27% of medical and dental students smoke cigarettes <sup>(3)</sup>.
- ❖ Among youth, (Global Youth Tobacco Survey, 2005) for grades 7-9 in 92 private and public schools:
  - ❖ found that 60% currently smoked any tobacco product, but with the majority smoking narghile<sup>(4)</sup>

## Background 2

## National Tobacco Control Policies

1995

- ❖ law 394/95 adapted the 1983 decree on **labeling** by requiring the warning: **“MOH warns smoking leads to dangerous and deadly diseases”**

" وزارة الصحة تحذر التدخين يؤدي الى امراض خطيرة ومميتة "

- ❖ be 'clear to the naked eye' on the pack (no size specified)
- ❖ and occupy 15% of advertising space.



## Background 2

## National Tobacco Control Policies

2005

Lebanon ratified the WHO Framework Convention on Tobacco Control (FCTC)

WHO FCTC binds all parties to implement policies **within 5 years** following the ratification.



2011



## Background 3

## Evidence related to impact of warnings of cigarette packs

Advances in the science of warnings on cigarette packs have suggested that:

**pictorial warnings** are **even more** effective than **text warnings**

perhaps especially for low literacy populations.<sup>6</sup>

- ❖ Never the less , there have been differences found in **which** warnings are most effective in various countries.

- ❖ Therefore, it has been recommended that countries test their own warning labels prior to implementation of **article 11: Packaging and labeling of tobacco products**.<sup>6</sup>

### Factors that influence the impact of graphic warnings includes:

- ❖ size
- ❖ placement (front or back),
- ❖ the specific pictures (with more gruesome pictures rated as more effective even by smokers),
- ❖ the content of the accompanying text warning,
- ❖ the attribution of the warning (Ministry of Health or Syndicate of Physicians or others, 6).

### Health warnings and messages that should address different issues related to tobacco use:(6, 7)

- ❖ harmful health effects
- ❖ the impact of exposure to tobacco smoke
- ❖ advice on cessation
- ❖ the addictive nature of tobacco
- ❖ adverse economic and social outcomes
- ❖ impact of tobacco use on significant others.

## Objectives of our study

To test various pictorial warnings and text warnings with three target populations in Lebanon.

- a. **Students in schools**
- b. **Students in universities (18-24 years)**
- c. **Adults (25-65 years)**

## Methodology

### Methodology 1

#### Initial phase: preparation of the pictorial health warnings

- ❖ Review of the [www.tobaccolabel.ca](http://www.tobaccolabel.ca)
- ❖ Identify from the website different possibilities
- ❖ Met with graphic designer
- ❖ Met with a group of tobacco control expert from NTCP and with communication and health education expert
- ❖ **Seven** different themes and accompanying text messages and/or graphic health warnings were identified to be tested

Methodology 1

Initial phase: preparation of the pictorial health warnings

❖ the themes include:

1. **impact of second hand smoke** (pregnancy and in general) – university, adults and schools
2. **long term health impact** (heat disease, **lung cancer**, vascular disease) – university, adults and schools
3. **short term health impact** (**teeth color**, clothes smell - for adolescents) – school and university
4. reproductive health impact (impotence) – university and adult
5. dependence university, adult
6. cessation - university and adult
7. financial loss university and adult

❖ Pilot tested the pictures



Second step: implementation

- ❖ Youth (13-18 years) were accessed through public and private schools. A total of 30 schools was chosen. A sample of 83 students was taken from each school.
- ❖ The youth were shown 3 warnings, one at a time and asked to complete a **survey** inquiring about the **messages** and its **impact** in accordance with literature.
- ❖ The 3 warnings consisted of the **current warning** while the **2 other** were either a pictorial or text warning to be tested.

Third step: analysis

❖ SPSS 18.



Methodology 2  
Survey items

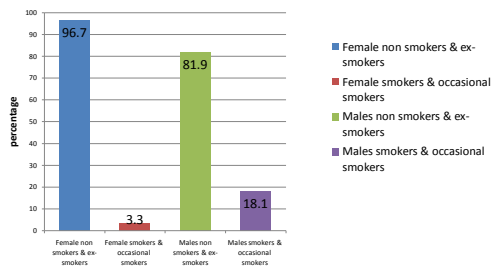
- ❖ Include measures of:
  - ❖ Messages related variables
  - ❖ Impact related variables
  - ❖ Demographics variables
- ❖ Theories referred to:
  - ❖ Communication Theories : impact (effectiveness), self efficacy (confident/feel capable)
  - ❖ Behavioral change theories: attitudes and intentions (9)
  - ❖ Health believe model : intention (for quitting or not to start , remain quit)

## Ethics

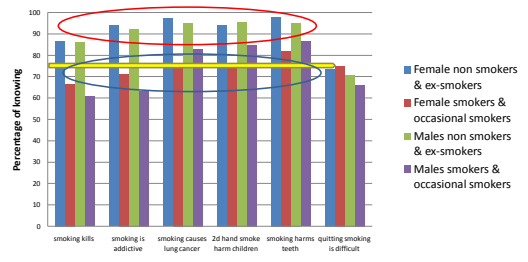
- IRB approval was sought prior to embarking on this study to enhance **beneficence, respect for persons, autonomy, and justice.**
- Approval of the MEHE
- Consent of school principal
- Consent of parents
- Assent of the student
- Information sheet

## Results

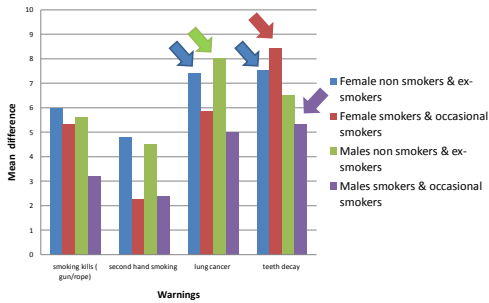
Smoking status among females and males in school setting



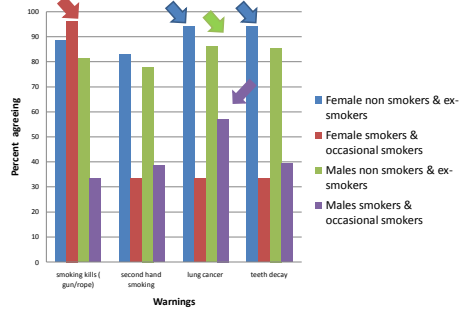
Knowledge questions



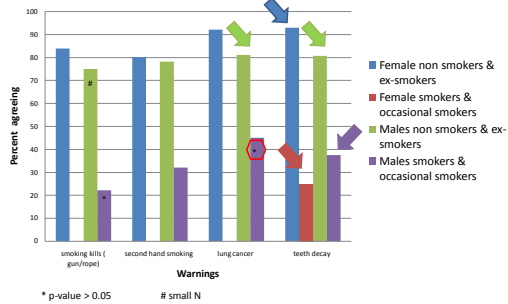
Perception of effective pictorial warning compared to the current one



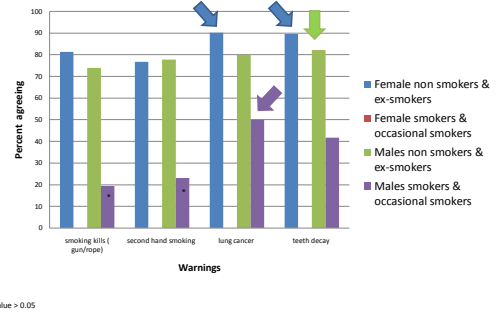
Motivation not to start smoking/ to quit smoking compared to the current warning



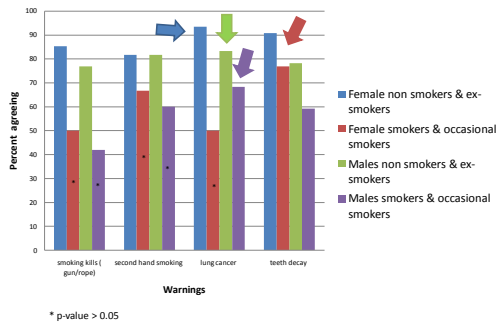
### Intention not to start smoking / try to quit smoking compared to the current warning



### Confidence that will not start smoking / can quit smoking compared to the current warning



### I will encourage my friends and relatives who are non-smokers to remain non-smokers more than I would have before seeing this warning



### Challenges/limitation

- Consent of school
- Data collection timing: exam period
- Length of the questionnaire
- Linking the pictorial to the questions
- Consent of parents
- Data collectors and data entry personnel
- Reach the needed numbers

### Conclusion

- ❖ This research is the second -that we are aware of - to test pictorial warnings with youth in school setting
- ❖ Finding need to be combined with the finding from universities and adults to :
  - ❖ **Inform policy** related to health warning labels on cigarette packs in Lebanon
  - ❖ Increase the possibility that once a law is issued, its **implementation** is in line the findings.
  - ❖ Health warning labels on cigarette packs in Lebanon will achieve the desired result of **enhancing intention** to:
    - ❖ quit and actual quitting
    - ❖ intention to remain smoke free for those who do not yet smoke
    - ❖ reduce uptake of cigarettes by youth

### Acknowledgement

- Funders: URB; AUB and ASH international
- Data collectors and data entry
- Epidemiologist
- All students who gave of their time to engage with us in this research

## References

1. World Health Organization. *WHO Report on the Global Tobacco Epidemic: The MPOWER package*. [http://www.who.int/tobacco/mpower/mpower\\_report\\_full\\_2008.pdf](http://www.who.int/tobacco/mpower/mpower_report_full_2008.pdf) retrieved on Dec 26th 2008.
2. World Bank. *Tobacco: Health Impacts and Economics in the Middle East and North Africa region*. 2002. Washington: Human Development.
3. Warren CW, Jones NR, et al (2008). Tobacco use and cessation counseling: cross-country. Data from the Global Health Professions Students Survey (GHPSS), 2005-7. *Tobacco Control*, 17(4): 238-247.
4. Saade G., Abou Jaoude S., Alfi Soweid R., (corresponding author), Warren C.W., Jones N.R. (2008). Patterns of tobacco use: results from GYTS in Lebanon. *The Eastern Mediterranean Health Journal*, 14(6): 1280-1289.
5. Hammond D, Fong GT, Mcdonald PW, et al, (2006) Showing leads to doing: graphic cigarette warning labels are an effective public health policy. *European Journal of Public Health*, 16(2):223-224.
6. Hammond D. (2008). Chapter 2: Designing health warnings in Tobacco Labeling Toolkit. accessed March 20th 2009
7. World Health Organization, Conference of Parties 3. Elaboration of guidelines for implementation of Article 11 of the Convention. 2008. Accessed at [http://www.who.int/gh/fttc/PDF/cop3/FTC\\_COP3\\_7-en.pdf](http://www.who.int/gh/fttc/PDF/cop3/FTC_COP3_7-en.pdf) accessed March 29th 2009
8. Hammond D. (2008). Chapter 4: Evaluating health warnings and messages in Tobacco Labeling Toolkit.
9. Montano DE & Kasprzyk D. (2008). Theory of Reasoned Action, Theory of Planned Behavior, and the Integrated Behavioral Model. Chapter 4 in Glanz K, Rimer BK, Viswanath Reddy. *Health Behavior and Health Education: Theory, Research, and Practice*. Jossey-Bass: San Francisco, CA.