

## **DISSERTATION**

# **Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011**

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**Submitted as partial fulfilment for the award of the degree of  
Master of Public Health (MPH)  
University of Pretoria  
Pretoria.**

**Emma N. WANYONYI**

**Student number: 12148238**

**Supervisor: Prof. OA AYO-YUSUF**

**12 February 2015**



**UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA**  
Faculty of Health Sciences

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

## A. PREAMBLE

### DECLARATION

I declare that the dissertation which I hereby submit for the degree of Master of Public Health at the University of Pretoria is my own work and has not previously been submitted by me for a degree at another University.

Reference number:

- University of Pretoria: 88/2014

Date of approval from ethics committee:

- University of Pretoria Ethics Committee: 26/03/2014



Student's signature

12<sup>th</sup> February 2015

Date

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Supervisor's signature

12<sup>th</sup> February 2015

Date

Name of journal for proposed submission:

- *Journal of School Health*

Factors associated with school personnel's support for tobacco control policies in Ugandan schools  
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## DEDICATION

For my family,

My mother for your constant prayers and my Late father for his constant nudge to study  
hard, hard, hard...

My siblings, The Late Catherine, Ruth, Robert and Valerie for your constant support and  
for always having my back;

My niece and nephews, for your inquisitiveness that keeps me on my toes;

And my son Ian for your unquestionable love.

I love you all and God Bless!!

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

## **ACKNOWLEDGEMENTS**

I would like to thank my supervisor, Prof. OA Ayo-Yusuf for supervising this research, his constant guidance throughout my study period and his supervision and technical support in conducting the research and writing up this dissertation. You have been a great teacher!

Thanks Also to Dr. Bukola Olutola, for her technical support, guidance, endless encouragement and brilliant ideas. Your help is greatly appreciated.

Mr. Paul Ebusu and Dr. Chigozie Ezeh, my colleagues in the Tobacco control sub-track; thank you for always being available to share ideas and knowledge.

Finally, I thank the American Cancer Society (ACS) and the University of Pretoria (UP) for the UPACS fellowship, without which I would not have been able to undertake this study.

## **ABSTRACT**

**BACKGROUND:** This study sought to identify factors associated with school personnel's support for tobacco-free policies in Uganda in 2007 and 2011.

**METHODS:** Data were obtained from the combination of the 2007 (n=515) and 2011 (n=682) Ugandan Global School Personnel Survey (GSPS). Analyses included chi-square statistics and multivariate logistic regression.

**RESULTS:** Of the participants, 92.9% supported the tobacco-free policies and 61.9% (n=727) of the schools had a policy restricting tobacco use within the school premises by personnel and students. However only 52.8% (n=370) of those with school policy reported complete enforcement of the school policy. A greater proportion of non-smokers than smokers were in support of a school policy (94.8% vs. 57.7%;  $p < 0.05$ ). Believing that teacher tobacco use influences student use (OR=8.9; 95% CI= 2.41-33.47) and supporting increase in price of tobacco products (OR=6.4; 95% CI=1.34-30.58) were significantly associated with support for policy. Those who supported school tobacco-free policy were also more likely to be of the opinion that tobacco industry should be allowed to sponsor school events (OR=4.4; 95% CI= 1.26- 15.23).

**CONCLUSIONS:** Tobacco control interventions should promote personnel's enforcement of the policies and raise awareness of Tobacco Industry Advertising Promotion and Sponsorship (TAPS) strategies.

Factors associated with school personnel's support for tobacco control policies in Ugandan schools  
during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

## TABLE OF CONTENTS

A. PREAMBLE .....	I
DECLARATION.....	I
DEDICATION .....	II
ACKNOWLEDGEMENTS .....	III
ABSTRACT .....	IV
TABLE OF CONTENTS .....	V
LIST OF ACRONYMS.....	VII
RESEARCH PROTOCOL.....	1
PROTOCOL EXECUTIVE SUMMARY .....	2
1. INTRODUCTION.....	4
2. LITERATURE REVIEW .....	6
3. RESEARCH QUESTIONS.....	9
4. AIM AND OBJECTIVES.....	10
5. STUDY METHODS .....	10
6. DATA ANALYSIS.....	13
7. ETHICAL AND LEGAL CONSIDERATIONS .....	14
8. LOGISTICS AND TIME SCHEDULE .....	15
9. BUDGET .....	15
10. REFERENCES.....	16
B: JOURNAL MANUSCRIPT .....	20
ABSTRACT .....	20
BACKGROUND .....	21
METHODS .....	22
PARTICIPANTS .....	22
INSTRUMENTS AND MEASURES .....	22
DATA ANALYSIS .....	23

Factors associated with school personnel's support for tobacco control policies in Ugandan schools  
during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

RESULTS.....	23
DISCUSSION.....	24
STRENGTHS AND LIMITATIONS OF THE STUDY.....	27
CONCLUSIONS.....	28
IMPLICATIONS FOR SCHOOL HEALTH.....	28
ACKNOWLEDGEMENTS .....	29
REFERENCES:.....	30
C: APPENDICES .....	38
APPENDIX 1: DATA COLLECTION TOOL .....	38
APPENDIX 2: ETHICS APPROVAL CERTIFICATE .....	46
APPENDIX 3: SUPPLEMENTARY TABLES AND FIGURES .....	47
3.1: TIME SCHEDULE .....	47
3.2: STUDY BUDGET .....	48
APPENDIX 4: GUIDELINES FOR AUTHORS FOR JOURNAL OF SCHOOL HEALTH .....	49

## List of Acronyms

CDC	Centers for Disease Control
CTCA	Centre for Tobacco Control in Africa
DHS	Demographic and Health Survey
FCTC	Framework Convention on Tobacco Control
GYTS	Global Youth Tobacco Survey
GSPS	Global School Personnel Survey
GTSS	Global Tobacco Surveillance System
MoH	Ministry of Health
NACADAA	National Campaign Against Drug Abuse
NCDs	Non- Communicable Diseases
NEMA	National Environmental Management Authority
PoS	Point of Sale
SHS	Second Hand Smoke
SHSPH	School of Health Systems and Public Health
TAPS	Tobacco Advertising Promotion and Sponsorship
TC	Tobacco Control
UPACS	University of Pretoria- American Cancer Society
US	United States
WHO	World Health Organization



## **RESEARCH PROTOCOL**

### **FACTORS ASSOCIATED WITH SCHOOL PERSONNEL'S SUPPORT FOR TOBACCO CONTROL POLICIES IN UGANDAN SCHOOLS**

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A Research Protocol submitted to the Faculty of Health Sciences' Research Ethics Committee In partial fulfillment of the requirements of the Degree of Master of Public Health (MPH)

University of Pretoria

**by:**

**Emma N. WANYONYI**

**Student number: 12148238**

**Protocol no. 88/2014**

**Supervisor: Prof. OA AYO- YUSUF**

**28<sup>th</sup> February 2014**



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UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA**  
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## **Protocol Executive Summary**

**Introduction:** Tobacco use is one of the leading preventable causes of morbidity and mortality in the world. Research shows that tobacco use often begins in adolescence with the Centers for disease control (CDC) estimating that four out of every five smokers begin before they reach adulthood and subsequently become lifetime users. Schools are an important setting for establishing life- long healthy habits because children spend a significant amount of their time there. In schools, adolescents are exposed to the influence of school personnel such as teachers and administrators who become role models and opinion leaders for them. Their knowledge about, attitude towards and support for tobacco control policy is critical in ensuring successful implementation of tobacco control in schools. It is therefore important to understand the factors that are associated with school personnel's support for tobacco control policies in schools.

**Aim:** To identify the factors associated with school personnel's support for tobacco control policies between 2007 and 2011.

**Methods:** Data were obtained from the combination of the 2007 and 2011 Ugandan Global School Personnel Survey (GSPS). A total of 517 school personnel in 2007 and 682 in 2011 completed the questionnaire which included information on the tobacco use status of school personnel, their socio-demographic characteristics, the existence and support for school policies prohibiting tobacco use, access to teaching material and training, and their attitude towards tobacco control. The support for school policy prohibiting tobacco use on school premises by personnel and students will be considered to be the main outcome measure.

**Data analysis:** Principal component analysis followed by test of internal consistency (Cronbach's alpha) will be used to identify which set of the multiple questionnaire items asked on the knowledge of health risk, attitude towards tobacco control and types of school tobacco control policy constitutes a reliable measure of these different constructs.

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

Group differences will be tested using chi-square statistics and t-tests for categorical variables and continuous variables respectively. Data will further be analyzed using multiple-variable adjusted logistic regression to determine factors that are independently associated with expressing support for anti-tobacco policy among school personnel. All statistical tests will be two-tailed and statistical significance will be set at  $p < 0.05$ .

**Expected outcome:** Inform strategies to improve school personnel's support by providing school personnel with the resources they need to effectively implement school based tobacco control programs and by extension influence community and public support for tobacco control.

## 1. INTRODUCTION

### 1.1 Background

Tobacco use is one of the leading preventable causes of morbidity and mortality in the world.<sup>1</sup> It is estimated that it causes nearly 6 million deaths globally each year and it is projected that it will cause over 8 million deaths annually by 2030, with 80% of these deaths occurring in low- and middle-income countries.<sup>2</sup> To address this problem, the World Health Organization developed a public health treaty known as the Framework Convention on Tobacco Control (FCTC).

The Framework Convention on Tobacco Control (FCTC) is an evidence-based public health treaty developed under the auspices of the World Health Organization (WHO) in response to the globalization of the tobacco epidemic.<sup>3</sup> The FCTC proposes a number of policy measures aimed at reducing the supply and demand for tobacco. Some of these measures include:

**Price and tax measures (Article 6):** The FCTC recognizes that tax and price measures are effective in reducing tobacco consumption, particularly among young and poor people. Countries are urged to implement tax and price policies on tobacco products in order to contribute to health objectives aimed at reducing tobacco consumption.

**Protection from exposure to tobacco smoke (Article 8):** Based on scientific evidence that shows that exposure to tobacco smoke causes death, disease and disability, countries are obligated to implement measures that protect citizens from exposure to tobacco smoke in public places.

**Education, communication, training and public awareness (Article 8):** This entails comprehensive educational and public awareness programs on the health risks of tobacco use and exposure to tobacco smoke and about the benefits of cessation of tobacco use. This article additionally recognizes the role of educators in promoting tobacco control communication.<sup>4</sup>

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

**Tobacco Advertising, Promotion and Sponsorship:** The FCTC recommends a total ban (or strict restrictions) on tobacco advertising, promotion and sponsorship; and requires that all permissible advertising must be accompanied by health or other appropriate warnings or messages.

**Sales to and by minors:** Countries are obligated to prohibit the sale of tobacco products to and by minors (age set by domestic law, national law or eighteen years).

## 1.2 Tobacco Control in Uganda

The Uganda Demographic and Health Survey (2011) showed the prevalence of smoking among adults to be 25% for men and 3% for women<sup>6</sup>. A study by Mpulungi and Muula<sup>7</sup> in Uganda revealed that 17.5% of students reported to have ever smoked tobacco, while 5.8% of those who had never smoked thought they would start smoking sometime within the next year. In 2006 Arua Uganda, 21.9% of high school students were smokers while 21.2% were using other tobacco products at the time of the survey. Approximately one tenth of the non- smokers thought they would initiate smoking in the next 12 months.<sup>8,9</sup>

Uganda ratified the FCTC in 2007, but is yet to enact comprehensive and dedicated tobacco control legislation.<sup>10</sup> Even though there is support for smoke- free law with a study carried out in 2009 showing that 66% of youth in Kampala support a law against public smoking<sup>11</sup>, the legal framework for smoke free law covered by the National Environmental (control of smoking in public places) Regulations is not adequate as it is not FCTC compliant.<sup>5</sup>

The chronology of tobacco control interventions in Uganda before its ratification of the FCTC in 2007 is not well documented. Available literature shows that there are a number of constitutional and legislative measures that were introduced in Uganda that remotely support tobacco control, even though most of them have not been effectively enforced.<sup>3</sup> The constitution of Uganda (1995), the National Environmental Management Act (NEMA) of 1996, the Public Health Act of 1964 and the Occupational health and

safety Act of 2006 all have tobacco control supportive provisions ( through the right to a clean and healthy environment).

Regarding tobacco advertising, promotion and sponsorship, tobacco industry self-regulation measures have reduced advertising in the mainstream media, including print, radio and TV. However Mpabulungi and Muula report in their study<sup>7</sup> carried out in Kampala amongst high school students that at least two-thirds have seen both anti and pro- tobacco advertising. Point of sale (PoS) advertising is also widespread and advertising in new media (internet and social media) is increasing, and promotional activities by the industry have been reported.<sup>5</sup>

## **2. LITERATURE REVIEW**

Studies have shown that children in schools with no tobacco use restrictions perceive smoking as being acceptable, resulting in intentions to take up the habit.<sup>12</sup> Similarly, adolescents' smoking behaviour is acquired through observing the behaviour of role models in the social environment such as parents, siblings and other prominent members of the society.<sup>12</sup> A sample policy developed for public schools in the US state of Maine recognizes the role that school personnel can play in influencing tobacco use and seeks to restrict their use of tobacco within the school environment, in addition to measures provided to the students and visitors respectively.<sup>13</sup>

### **2.1 Adolescent tobacco use initiation**

Tobacco use often begins in adolescence.<sup>7,13,14</sup> The Centers for disease control and Prevention (CDC) estimated that four out of every five smokers began smoking before they reached adulthood.<sup>15</sup> Most people will experiment with cigarettes at some point in their childhood, mostly between the ages of nine and twelve, and subsequently become lifetime users.<sup>16</sup> If smoking does not start during adolescence, it is unlikely ever to occur.<sup>17</sup>

A study conducted to examine the prevalence and common correlates of early smoking initiation among school children in Africa shows that the age at which an individual initiates smoking determines his probability of addiction, risk of adverse health

outcomes and cessation with adolescents who begin to smoke at or before the age of 13 being twice as likely to remain smokers in adulthood as are those who begin at age 17 or later.<sup>18</sup> This study found that 8.2% of all adolescents aged 13 to 15 years in Uganda started smoking before the age of 14 years; (12.1% of boys and 5.0% of girls). In the study by Mpabulungi and Muula,<sup>7</sup> more than half of the students who reported to have ever smoked tobacco had tried or started smoking before the age of ten.

## **2.2 Schools as a setting for Tobacco control**

Schools are an important setting for establishing life-long healthy habits because children spend a significant amount of their time there<sup>13,21</sup>, and are exposed to the influence of not only their peers and colleagues, but also the adults within the school environment such as the school personnel. Schools also are forums for development and learning. Therefore adults such as school personnel are expected to be motivators and positive role models for the students.<sup>22</sup> The effectiveness of any interventions to promote healthy habits relating to tobacco use at this stage would depend on the school personnel's involvement in delivering appropriate educational curriculum and modeling behaviour.<sup>23</sup>

Schools often enact regulations prohibiting tobacco use on school premises.<sup>24</sup> If well implemented, school policies and programs designed to reduce tobacco initiation and use could be one of the most effective strategies for tobacco control.<sup>10</sup> Prohibiting tobacco use on school premises reinforces the norm that tobacco use is not an acceptable habit.<sup>3</sup> Effective tobacco control school policies are expected to<sup>25</sup>:

- Provide positive role modeling by adult employees and visitors;
- Reduce children's observation of and exposure to tobacco use and second hand smoke;
- Prevent initiation and regular use of tobacco by the students and therefore protect them from the health effects;
- Influence students attitudes and behavior relating to smoke-free environments, including smoke-free workplaces and communities;
- Support a country's general smoke-free laws.

### **2.3 School personnel and tobacco control**

School personnel such as teachers and administrators are role models for community norms and key opinion leaders in the school and community.<sup>4,27</sup> They have daily interaction and spend considerable amount of time with the students and can therefore be influential to them. They may act as enforcers of school policies and rules. They are therefore key to ensuring that tobacco control policies in schools are adhered to.<sup>28</sup>

In the 2006 Global School Personnel Survey (GSPS) cross country overview, school personnel who indicated that they were very concerned about tobacco use by youth felt that school personnel should set a good example by not using tobacco and that school personnel using tobacco were less likely to advise their students to stop using tobacco.<sup>4,29</sup>

School personnel are role models for the students under their care, youth in the wider society and the general public<sup>31,32</sup>, with the ability to influence the students' tobacco use<sup>28</sup> through their knowledge and attitude.<sup>33</sup> They therefore are important stakeholders in the development and implementation of any effective policies and interventions to reduce tobacco use, hence the importance of understanding their attitudes towards tobacco control and the extent of their tobacco use.

It has also been shown that teacher smoking during school hours is associated with adolescent smoking.<sup>12</sup> A study by Poulsen et al<sup>12</sup> showed that where students' exposure to smoking teachers was common, an attitude of tolerance and acceptability towards smoking was created amongst the students. Students' exposure to teachers smoking outdoors on school premises (such as play grounds) was significantly more associated with smoking behavior than students' exposure to teachers smoking inside the school buildings (e.g. in staff rooms).<sup>12</sup>

Students' exposure to smoking teachers is however not the only predictor of smoking by the students. Another study indicates a strong association between smoking behaviour of students and other predictors such as smoking habit of the parents<sup>34</sup>. It is therefore critical that any successful school tobacco control intervention should be backed by



Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

other policies that limit students' exposure to tobacco use and promote positive role modeling within the home.

## **2.4 School personnel Knowledge and attitudes towards tobacco use**

School personnel have been found to be generally knowledgeable about the health effects of tobacco use<sup>35</sup>, including the harmful effects of second hand smoke (SHS).<sup>36</sup> However, knowledge about tobacco use and its consequences has to be supported with proper training and access to learning and teaching material about tobacco use and prevention in order to have an impact on adolescent tobacco use.<sup>29</sup> In the 2006 GSPS cross- country overview, school personnel believed that they required specific training to teach students to stop tobacco use or prevent non-tobacco users from smoking initiation.<sup>4,29</sup> Inadequate teaching material, poor scheduling and inadequate teaching skills are some of the barriers identified by school personnel that prevent them from effectively playing their role in promoting tobacco cessation and initiation among students.<sup>33,37</sup>

## **3. RESEARCH QUESTIONS**

### **3.1 Problem statement**

School personnel are not only role models to young people, but are also significant members of the community that can influence health policy development. Little is known about the factors that might influence the school personnel's support for tobacco control policies in Uganda, particularly since the country became a signatory to the WHO FCTC in 2007. Yet, such information would be critical in informing the development and implementation of effective strategies that will lead to the scale up of support for tobacco control policies by school personnel in Uganda. This study will therefore seek to answer the following research questions:

1. Has there been any change in the support for tobacco policies among school personnel in Uganda between 2007 and 2011?
2. What factors are associated with support for TC policies among school personnel in schools in Uganda?

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

3. Are the factors associated with these policies consistent between 2007 and 2011?

### **3.2 Significance of study**

This study may inform strategies to improve school personnel's support by providing school personnel with the resources they need to effectively implement school based tobacco control programs and by extension influence community and public support for tobacco control.

## **4. AIM AND OBJECTIVES**

### **4.1 Aim of study**

This study seeks to identify the factors that influence school personnel's support for tobacco control policies by comparing factors associated with support for these policies in 2007 and in 2011.

### **4.2 Objectives of study:**

1. To determine the proportion of school with enforced anti-tobacco policy for school personnel and students in Uganda.
2. To determine factors associated with school personnel's support for tobacco control policies in Uganda.
3. To assess school personnel's knowledge of health effects of tobacco use and their attitude towards tobacco control in general in Uganda.

## **5. STUDY METHODS**

### **5.1 Study design and data source**

#### **5.1.1 Study design**

This is a cross-sectional analytical study involving an analysis of the merged dataset from two nationally representative samples of 517 and 682 Ugandan school personnel who participated in the 2007 and 2011 Global School Personnel Study (GSPS) respectively.

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

### **5.1.2 Data source**

The Global School Personnel Survey (GSPS) covers all personnel working in schools selected to participate in the Global Youth Tobacco Survey.<sup>32,39</sup> The GSPS was conducted by the Centre for Disease Control and Prevention (CDC) to document the prevalence of school personnel's tobacco use and tobacco-related knowledge, attitudes, behaviour and environmental influences. In 2007 and 2011, Uganda conducted the Global Youth Tobacco Survey (GYTS) and the Global School Personnel Survey (GSPS) simultaneously.

### **5.2 Study setting**

Primary and secondary schools in Uganda in which the 2007 and 2011 GYTS were conducted.

### **5.3 Study population and sampling**

The Uganda GSPS is a school based survey of school personnel from the schools that participate in the GYTS. In 2007, the GYTS was conducted in secondary schools having students in Secondary (S.)1, S. 2 and S.3; while in 2011 it was conducted in schools with pupils and students in primary grade 7 and secondary year 1 to 3. In both years, a two-stage cluster sample design was used to produce representative data for Uganda. At the first stage schools were selected with probability proportional to enrollment size. At the second stage classes were randomly selected and all students in selected class were eligible to participate.

### **5.4 Measures and definitions:**

Information obtained from the surveys included socio-demographic characteristics such as age and gender. The respondents were asked to indicate their primary position in the school (administrator/ headmaster, teacher, school health services personnel such as a nurse, clerical staff or any other position), and how much they were involved in teaching about health.

### **Main outcome measure/dependent variable**

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

Personnel's support for anti-tobacco policy was measured by a positive response to either or both of the following two questions "Do you think schools should have a policy or rule specifically prohibiting tobacco use among school personnel on school premises/property?" and "Do you think schools should have a policy or rule specifically prohibiting tobacco use among students on school premises/property?"

### **Prevalence of tobacco use among the school personnel**

The respondents were asked questions relating to their tobacco use and were categorized into those who had ever smoked cigarettes (those who answered 'yes' to the question 'have you ever smoked cigarettes?') and those who had never smoked (those who answered 'no' to the same question). Those who had ever smoked were then required to answer further questions relating to their smoking behaviour (whether they had smoked within the school premises or not and their frequency of smoking. Respondents were asked similar questions in relation to use of non- cigarette products such as chewing tobacco, snuff, bidis, cigars and pipes.

### **Existence and enforcement of tobacco control policies in schools**

Respondents were asked about the existence of school policies prohibiting tobacco use by students, personnel and visitors within the school buildings, school grounds and events. They were further asked about the existence of policies that limit physical access to tobacco products. They were then asked to indicate the level of enforcement of the existing policies.

### **Capacity of the school personnel to teach tobacco use prevention to the learners**

The capacity of school personnel to teach about tobacco use was measured by asking questions relating to their general understanding of tobacco related issues including their knowledge of health effects of tobacco use, effects of second hand smoke, their thoughts on the influence of teacher tobacco use on youth tobacco use, need for specific training for teachers to teach students how to avoid tobacco use and their thoughts on tobacco industry's role in encouraging youth to use tobacco.

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

They were also asked whether they had received any training to prevent tobacco use amongst youth and whether they had any teaching and learning material to facilitate their teaching work; and further, if tobacco use prevention was included in the school curriculum and/ or in non- classroom programs/ activities; and if help was available for students and the personnel to stop tobacco use.

### **School personnel's attitudes and perceptions about tobacco control policies in schools**

In order to explore the attitudes and perceptions of school personnel about tobacco control policies in schools, the respondents were asked about their thoughts on a number of tobacco control policies including banning of cigarette smoking in public places, the role that the of tobacco industry should be allowed to play in school environments, complete banning of tobacco product advertising and tobacco product price increase. They were also asked about their general feeling about tobacco use amongst youth in the community through the question 'How concerned are you about tobacco use among youth in your community?'

Finally, the respondents were asked to indicate the extent to which they agree that schools should have a policy prohibiting tobacco use on school premises by school personnel and students i.e. support for smoke free policy in schools. The study will consider this to be the main outcome measure/ variable.

## **6. DATA ANALYSIS**

Data will be analysed using STATA Release 12 (Stata Corporation, College Station, Texas, USA), with appropriate weighting of selection probabilities and taking into consideration the complex sample design used in the GSPS.

Descriptive statistics will be carried out on the distribution of school personnel tobacco use behavior, attitude towards tobacco control and their support for school policy prohibiting tobacco use on school premises by school personnel and students. As data reduction method for constructs with multiple items, principal component analysis will be used to identify variables which constitute a measure of attitude towards tobacco control, knowledge of health effects and strength of existing school policy. The set of

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

identified variables following principal component analysis will then be subjected to test of internal consistency as a measure of its reliability (Cronbach's alpha). Group differences will be tested using chi-square statistics and t-tests for categorical variables and continuous variables respectively.

Data will further be analyzed using multiple-variable adjusted logistic regression to determine factors that are independently associated with expressing support for anti-tobacco policy among school personnel. All statistical tests will be two-tailed and statistical significance will be set at  $p < 0.05$ .

## **7. ETHICAL AND LEGAL CONSIDERATIONS**

This study will use de-identified secondary data from the Uganda GSPS studies of 2007 and 2011 and therefore there will be no direct contact with the study participants and no informed consent will be required from them. However, there will be no attempt to obtain participants identities in the analysis, reporting and dissemination of the study; and anonymity will be maintained by using an allocated unique non-personal identifier number. Additionally, GSPS data is publicly available for use. Ethics approval will be sought from the University of Pretoria Research ethics committee.

### **7.1 Limitations of the study**

According to Virtanen et al<sup>34</sup> the GSPS is not an Independent sample of schools and is dependent on the success of the GYTS because it uses the schools selected for the GYTS. In Uganda, the GYTS was conducted in secondary schools having students in Secondary (S.)1, S. 2 and S.3 in both 2007 and 2011, but also included students in primary grade 7 (who are younger) in 2011, making any direct comparisons between the two years inaccurate. Additionally, participation in the survey is voluntary and it relies on self-reports from school personnel which may lead to under- or over-reporting of knowledge and behaviour leading to reporting bias. This study will be limited by its cross-sectional nature, which will preclude any clear evidence on causality, given the limited information on the temporal order of events.

## 8. LOGISTICS AND TIME SCHEDULE

The study will follow the schedule in appendix 2. The roles and responsibilities of the main study team will be as in table 1 below:

**Table 1: Contributors and Authorship**

<b>Name</b>	<b>Department</b>	<b>Contribution</b>
Emma N. Wanyonyi	School of Health systems and Public Health (SHSPH), University of Pretoria	Study conception and project lead
Prof. OA Ayo-Yusuf	SHSPH, University of Pretoria	Project supervision Technical support (study conception, collection and statistical analysis)

### 8.1 Reporting and dissemination of results

The study is carried out in partial fulfillment of the requirements for the award of the degree of Master of Public Health (MPH) and a report will be presented to the University of Pretoria in form of a publication manuscript. A copy of the report will also be presented to Ministry of Health in Uganda to inform their policy work relating to promoting public support for the adoption of tobacco control policies.

Posters will be produced for presentation at Public health/ tobacco control conferences. Finally, the report will be published in an article in a relevant scientific journal

## 9. BUDGET

The costs of this study will be met through the University of Pretoria- American Cancer Society (UPACS) fellowship program and the budget is presented in appendix 3 of this protocol.

## 10. REFERENCES

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## **B: JOURNAL MANUSCRIPT**

**Title: Factors associated with personnel's support for tobacco- free policies in Ugandan schools during 2007 and 2011.**

### **ABSTRACT**

**BACKGROUND:** This study sought to identify factors associated with school personnel's support for tobacco- free policies in Uganda in 2007 and 2011.

**METHODS:** Data were obtained from the combination of the 2007 (n=515) and 2011 (n=682) Ugandan Global School Personnel Survey (GSPS). Analyses included chi-square statistics and multivariate logistic regression.

**RESULTS:** Of the participants, 92.9% supported the tobacco- free policies and 61.9% (n=727) of the schools had a policy restricting tobacco use within the school premises by personnel and students. However only 52.8% (n=370) of those who reported school policy reported complete enforcement of the school policy. A greater proportion of non-smokers than smokers were in support of a school policy (94.8% vs. 57.7%;  $p < 0.05$ ). Believing that teacher tobacco use influences student use (OR=8.9; 95% CI= 2.41-33.47) and supporting increase in price of tobacco products (OR=6.4; 95% CI=1.34-30.58) were significantly associated with support for policy. Those who supported school tobacco-free policy were more likely to be of the opinion that tobacco industry should be allowed to sponsor school events (OR=4.4; 95% CI= 1.26- 15.23).

**CONCLUSIONS:** Tobacco control interventions should promote personnel's enforcement of the policies and raise awareness of Tobacco Industry Advertising Promotion and Sponsorship (TAPS) strategies.

**Word Count:** 200

**Key words:** School personnel; school policies; tobacco control policies; tobacco- free policies; Uganda.

## **BACKGROUND**

Tobacco use is one of the leading causes of preventable morbidity and mortality in the world.<sup>1</sup> Nearly 6 million deaths are reported globally each year with a projected increase to over 8 million by 2030, with 80% of these deaths occurring in low- and middle-income countries.<sup>2</sup> Tobacco use often begins in adolescence<sup>3,4,5</sup> with 4 out of every 5 smokers starting before they reach adulthood<sup>6</sup> and subsequently becoming lifetime users.<sup>7</sup> The age at which an individual initiates smoking determines his probability of addiction, risk of adverse health outcomes and cessation, with adolescents who begin to smoke at or before the age of 13 being twice as likely to remain smokers in adulthood as those who begin at age 17 or later.<sup>8</sup> Schools, then become an important setting for establishing life-long health habits because children spend a significant amount of their time there<sup>4,9</sup>, and are exposed to the influence of existing rules, peer and school personnel behaviour.<sup>10</sup>

School personnel are generally knowledgeable about the health effects of tobacco use<sup>11</sup>, including the harmful effects of second hand smoke (SHS)<sup>12</sup> and using them to influence behaviour of students is a concept supported by a number of health promotion models.<sup>13</sup> Adolescents often see adults such as teachers and other school personnel as role models for community norms and key opinion leaders in the school and community.<sup>14,15</sup> These learners have daily interaction and spend considerable amount of time with school personnel especially the teachers. Moreover, teachers are enforcers of school policies and rules and can influence adolescents' tobacco use<sup>16</sup> through their knowledge, attitude and behaviour.<sup>17</sup> A study by Poulsen et al<sup>18</sup> showed that where students' exposure to smoking teachers was common, an attitude of tolerance and acceptability towards smoking was created amongst the students.

The attitudes of personnel towards tobacco is important in preventing learners from using tobacco.<sup>14</sup> School personnel's knowledge on the harmful effects of tobacco use, and attitudes towards anti-tobacco policy are important with regards their role as role models to the students. Therefore, this study sought to determine the factors influencing school personnel's support for tobacco policy in Uganda between 2007 and 2011.

## **METHODS**

This secondary data analysis used data obtained from the 2007 and 2011 Uganda Global School Personnel Survey (GSPS). The GSPS involves all school personnel working in schools that participate in the Global Youth Tobacco Survey (GYTS).<sup>19,20</sup> The 2007 and 2011 GSPS were school-based surveys of school personnel from the schools that participated in the 2007 and 2011 GYTS. For the GYTS, a two-stage cluster sample design was used to produce nationally representative data. At the first stage, schools were selected with probability proportional to enrolment size. At the second stage, classes were randomly selected and all students in selected classes were eligible to participate.

### **Participants**

In 2007, the GYTS was conducted in secondary schools having students in Secondary (S.)1, S. 2 and S.3; while in 2011 it was conducted in schools with pupils and students in primary grade 7 and secondary year 1 to 3. For the GSPS, 100% of the school personnel (teachers and administrators) completed the survey for a total of 517 teachers & administrators in 2007 and a total of 682 school personnel (teachers and administrators) in 2011 (N=1199).

### **Instruments and measures**

The GSPS used a self-administered questionnaire to obtain information on socio-demographic characteristics such as age and gender. Additionally, respondents were asked to indicate their primary position in the school (administrator/ headmaster, teacher, school health services personnel such as a nurse, clerical staff or any other position), and how much they were involved in teaching about health.

In both datasets, participants were also asked: "Do you think schools should have a policy or rule specifically prohibiting tobacco use among school personnel on school premises/property?" and "Do you think schools should have a policy or rule specifically prohibiting tobacco use among students on school premises/property?" Current smokers were participants who responded in the affirmative that they smoked cigarettes occasionally or daily at the time of the survey. A similar approach was used for current

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

snuff/ chewed tobacco users and current bidi/ cigar/ pipe users. On the existence and enforcement of tobacco control policies in schools, respondents were asked about the existence and level of enforcement of school policies prohibiting tobacco use by students, personnel visitors within the school buildings, school grounds and events.

The capacity to teach about tobacco use prevention was measured by asking questions about the existence of tobacco use prevention in the school curriculum, access to teaching and learning material about tobacco use, access to training on tobacco use prevention, non-classroom programs on tobacco use and knowledge on harmful effects of tobacco use. Attitudes and perceptions towards tobacco control in general and on specific tobacco control policies were also measured.

### **Data Analysis**

Data analysis was done using STATA Release 12 (Stata Corporation, College Station, Texas, USA) with appropriate weighting of selection probabilities and taking into consideration the complex sample design used in the GSPS. As data reduction method for constructs with multiple items, principal component analysis was used to identify multiple variables which could be reliably combined. Due to low factor loadings on any one domain, all items were used as separate variables. Group differences were assessed using chi-square statistics. Multi-variable logistic regression was carried out using backward deletion approach. All statistical tests were two-tailed. The level of significance was set at  $p < 0.05$ .

### **RESULTS**

Of the study population ( $n=1199$ ), 88.9% (95% CI: 90.04- 95.02) were teachers, 4.7% (95% CI: 2.77-7.93) were current smokers and 92.9% (95% CI: 90.1%-95.0%) supported tobacco- free policy. Of the participants, 81.7% (95% CI: 74.43- 87.81) and 71.6% (95% CI: 62.0- 79.55) reported existence of school policies prohibiting all forms of tobacco use in school buildings amongst students and personnel respectively. Of those with the policies, only 53.04% (95% CI: 43.17- 62.68) and 42.3% (95% CI: 34.73- 50.24) reported complete enforcement amongst students and personnel respectively. Only 56.7% (95% CI: 45.67-67.15) of participants reported existence of tobacco use

prevention in the school curriculum, while 56.7% (95% CI: 46.56-66.24) had access to teaching and learning material about tobacco use.

There were more non-current smokers supporting anti-tobacco policy than smokers (94.8% vs.57.7%;  $p<0.01$ ). A higher proportion of personnel from schools with tobacco use prevention in their school curriculum supported tobacco-free policies in their schools than those from schools without (97.6% vs. 85.3%;  $p<0.05$ ). Also, a higher proportion of those who reported that they had access to teaching and learning material about tobacco supported tobacco- free policies compared to those who did not have access (97.2% Vs. 88.5%;  $p<0.05$ ). However, there was no significant difference among male and female personnel in their support for anti-tobacco policy (Table 1).

After controlling for potential confounders, those who were current smokers were less likely to support tobacco-free policies compared to non-smokers (Adjusted Odds Ratio (aOR)= 0.12; 95% CI= 0.03- 0.45). Similarly, the odds of support for tobacco control policies were higher among personnel from schools with tobacco control prevention in the school curriculum than those without tobacco control prevention (aOR= 2.44; 95% CI= 1.12- 5.28). Teacher attitude about tobacco use was found to be positively associated with support for tobacco- free policies. Those who supported tobacco industry sponsorship to school events were more likely to support tobacco-free policy than those who did not support industry school event sponsorship (aOR= 4.37; 95% CI= 1.26- 15.23) (Table 2).

During 2007, there was no difference in the support for tobacco-free policy among current and non-current smokers. However, in 2011, current smokers were less likely to support tobacco- free policy compared to non-current smokers (aOR= 0.11; 95% CI: 0.03-0.45).(Table 3).

## **DISCUSSION**

This study shows that there is a high level of support for tobacco- free policies by school personnel in Uganda. This is in line with a study conducted in India which showed that school personnel generally support tobacco control policies in schools.<sup>21</sup> The study also demonstrates that the smoking status of school personnel, existence of tobacco use



Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

prevention in the school curriculum and personnel's attitude towards tobacco control policies in general are the main factors associated with personnel's support for tobacco-free policies in Ugandan schools. Smoking behaviour has been found to play a key role in the support for tobacco-free policies with support being low amongst regular or current smokers than amongst non-smokers.<sup>22</sup> In this study, a greater proportion of non-current smokers than current smokers supported tobacco-free policies in schools. This is consistent with findings from similar studies elsewhere, which have shown that current smokers are more likely to resist tobacco control policy.<sup>14, 23</sup> However, according to Nagelhout et al,<sup>24</sup> smokers especially those who have previously attempted to quit, support smoke-free policy because as they gradually understand the harmful effects of the habit, they believe that smoke-free laws could help them to quit.<sup>25</sup> Borland et al also suggest that increase in support for tobacco free policies amongst smokers is gradual as they slowly understand the rationale for such policies and experience their benefits.<sup>26</sup>

Judging from the low proportion of current smokers supporting tobacco policy, non-current smokers may have more knowledge about the harmful effects of smoking than current smokers.<sup>27</sup> This study also showed that the likelihood of support for tobacco policy was significantly higher among personnel who thought that teacher tobacco use influenced students' tobacco use than those who thought otherwise. In other words, the use of tobacco by teachers might be an important factor to consider when introducing tobacco policies in schools. Lack of knowledge of the health consequences of tobacco use has been associated with being a current tobacco user.<sup>28,29</sup> On the other hand having a knowledge of the negative effects of tobacco has been associated with support for tobacco control policy.<sup>28</sup> This highlights the need for personnel training on the prevention and effects of tobacco use in Uganda.

Training of school personnel especially teachers on tobacco use prevention is very important in understanding the curriculum development for teaching students' tobacco use prevention education. Tobacco control awareness in the school curriculum is an effective way of ensuring that tobacco control information is taught to students in schools.<sup>30</sup> During the course of personnel training, most of the teachers will be educated

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

on the negative effects of tobacco use and also tobacco control policies.<sup>28</sup> In this study, an association was observed between having tobacco control prevention in the school curriculum and personnel support for tobacco-free policy in the schools. Access to teaching and learning material is an important aspect of such a curriculum as it facilitates a smooth delivery of the curriculum.<sup>31</sup> In the current study, support for tobacco-free policy was more common among those who had access to teaching and learning material about tobacco use prevention. School personnel knowledge and attitudes about tobacco control in general accompanied by proper training and access to teaching and learning material about tobacco use prevention influence their support for similar policies in schools.<sup>21</sup> School personnel have been found to be generally knowledgeable about the health effects of tobacco use<sup>32</sup>, including the harmful effects of second hand smoke (SHS).<sup>33</sup> However, the study found that personnel supported tobacco industry sponsorship to school events. Studies from other countries have shown that personnel opposed tobacco industry sponsorship of school events as a platform for the industry to market and promote their products and linked this opposition to their awareness of the health consequences of tobacco use<sup>21,28</sup> This support for the industry in Uganda could be explained by the personnel's lack of awareness of the dynamics of tobacco industry Advertising, Promotion and sponsorship (TAPS) tactics and objectives.<sup>28</sup> Uganda currently has measures in form of industry self-regulation in print and electronic media that still expose youth to pro- industry advertising and sponsorship.<sup>3,34</sup> Personnel who do not understand the health consequences of tobacco use or the potential negative impact of tobacco industry sponsorship to the students and the community may be more accepting of sponsorship from the industry, while at the same time still support tobacco free policy in schools. However, little data exist in this area and personnel's attitudes and perception toward tobacco industry activities and the contributing factors should be further investigated.

Uganda ratified the FCTC in 2007, the same year that the 2007 GSPS was conducted. The country is yet to enact specific national tobacco control legislation<sup>21</sup> but enacted the National Environmental (control of smoking in public places) Regulations in 2006.<sup>34</sup> Since then there have been different interventions by different actors in the country to

promote tobacco control. This study found that there was no difference in school personnel support between 2007 and 2011. The factors associated with support for tobacco by school personnel were found to be consistent between the two years, but personnel tobacco smoking status was associated with personnel support only in 2011. This could be explained by the increasing awareness of tobacco control issues in the country due to its ratification of the FCTC and the increasing interventions that could have resulted in initial resistance from tobacco users; including the school personnel.

Despite all the enabling factors for support of tobacco-free policies in schools in Uganda, there is still relatively low enforcement. This is consistent with findings from other studies which showed that many schools have tobacco-free policies that are not completely enforced. In Romania and India for instance, tobacco products could still be purchased within or around school premises, despite existing policies<sup>21,35</sup>. If well implemented, school policies and programs designed to reduce tobacco initiation and use could be one of the most effective strategies for reducing tobacco use initiation.<sup>36</sup> A study in Wales found that the prevalence of daily smoking in schools with a written policy (with pupils and teachers prohibited from smoking in the school premises) was 9.5%; increasing to 21.0% in schools with intermediate level of policies and further to 30.1% in schools with no similar policy; but only if the policies are effectively implemented.<sup>30</sup> Therefore, the effectiveness of any interventions to promote healthy habits relating to tobacco use at this stage would depend on the school personnel's involvement in delivering appropriate educational curriculum and modeling behaviour.<sup>37</sup>

### **Strengths and limitations of the study**

Participation in the GSPS is voluntary and it relies on self-report which might have introduced reporting bias as the school personnel may consider smoking not to be socially desirable and might have under reported their smoking or over reported their level of support for anti-tobacco school policy. This study is also limited by its cross-sectional nature, which precludes any clear evidence on causality, given the limited information on the temporal order of events.

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

The study's reliance on survey data also presents some limitation such as possible errors and bias due to non-response to some questions, misleading data due to different interpretation of questions by respondents and recall bias especially on questions that require precise response on past behaviour. Furthermore, surveys are not good at following trends in real time or over short periods of time; and any changes in the population can only be measured by two surveys done at two different points in time, making them resource intensive and time consuming.

Despite its limitations, this study used a standardized and validated methodology used throughout the world, making the findings comparable. The GPS is a part of the broader Global Tobacco Surveillance System (GTSS) conducted around the world and covering 4 key areas i.e. Global Youth Tobacco Survey (GYTS), Global Health Profession Students Survey (GHPSS) and the Global Adult Tobacco Survey (GATS) thus providing comprehensive information to influence tobacco control policies in Uganda and other countries.

## **Conclusions**

School personnel's support for tobacco control policies is influenced by personnel's tobacco use status and experiences in general tobacco control as well as a supportive school curriculum. The findings highlight the need to provide an enabling environment for personnel to enforce tobacco- free policies in schools by developing a supportive curriculum, helping users among them to quit and building their capacity on tobacco control issues; especially on Tobacco Industry Advertising Promotion and Sponsorship (TAPS) tactics and objectives. Effective enforcement on tobacco- free policies in schools is associated with reducing prevalence of tobacco consumption by pupils.<sup>38</sup>

## **IMPLICATIONS FOR SCHOOL HEALTH**

Schools need to invest in interventions that support enforcement of existing policies; including mainstreaming of tobacco use prevention in the school curriculum, addressing personnel smoking habits and promoting general tobacco control awareness amongst personnel to encourage a positive attitude which in turn will influence their support for tobacco- free school policies to the benefit of the entire school community. Working

Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

with relevant authorities, school should allow for regular spot checks to ensure that the policies are being implemented.

### **ACKNOWLEDGEMENTS**

This study was conducted with support of the American Cancer Society (ACS) through its University of Pretoria- American Cancer Society (UPACS) fellowship program.

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Factors associated with school personnel's support for tobacco control policies in Ugandan schools during 2007 and 2011: **DISSERTATION: WANYONYI EFN 12148238**

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**DISSERTATION: WANYONYI EFN 12148238**
**Table 2: Socio- demographic characteristics, capacity and attitude of school personnel**

	Personnel supporting tobacco control policy% (n)	95% CI	P-Value
<b>SOCIO- DEMOGRAPHIC CHARACTERISTICS</b>			
<b>Gender</b>			
			0.6661
Male	92.06 (663)	85.35- 95.85	
Female	93.93 (440)	86.63- 97.36	
<b>Age (Years)</b>			
			0.6764
19-29	92.33 (514)	87.02- 95.57	
30-49	93.12 (531)	86.80- 96.54	
≥ 50	97.03 (39)	86.58- 99.40	
<b>Primary position in school</b>			
			0.9336
Headteacher	93.24 (84)	80.95- 97.82	
Teacher	92.93 (1001)	90.04- 95.02	
<b>Extent of responsibility of teaching about health</b>			
			0.1121
Primary responsibility to teach about health	99.14 (456)	90.20- 97.66	
Teach about health sometimes	86.73 (531)	72.22- 94.26	
Do not teach about health	97.08 (91)	92.08- 98.96	
<b>Current smoking</b>			
			0.0009
No	94.78 (1020)	91.67- 96.77	
Yes	57.67 (45)	21.81- 86.94	
<b>CAPACITY AND ATTITUDE ON TOBACCO CONTROL</b>			
<b>Tobacco use prevention in curriculum</b>			
			0.0017
No	86.67 (510)	79.27- 91.70	
Yes	97.58 (545)	93.97- 99.05	
<b>Access to teaching and learning materials about tobacco use</b>			
			0.0068
No	88.53 (648)	80.72- 93.44	
Yes	97.21 (406)	93.78- 98.77	
<b>Teachers need specific training to teach learners to stop using tobacco</b>			
			0.0377
No	86.78 (218)	73.71- 93.89	
Yes	94.75 (860)	91.67- 96.73	
<b>Smoke from other people's cigarette is harmful</b>			
			0.0024
No	66.99 (39)	38.55- 86.78	
Yes	94.15 (1045)	90.94- 96.27	
<b>Teacher tobacco use influences youth tobacco use</b>			
			0.0002
No	55.63 (71)	25.61- 82.03	
Yes	95.43 (1005)	91.96- 97.45	
<b>Tobacco industry should be allowed to sponsor school events</b>			
			0.0128
No	91.09 (682)	87.86- 93.53	

## Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

Yes	96.85 (395)	93.24- 98.56	
Tobacco product advertising should be completely banned			
No	85.74 (297)	75.64- 92.09	0.0277
Yes	95.35 (787)	91.22- 97.58	
The price of tobacco products should be increased regularly			
No	83.84 (160)	66.77- 93.05	0.0408
Yes	95.52 (919)	91.51- 97.69]	
The tobacco industry deliberately encourages youth to use tobacco			
No	88.88 (447)	80.46- 93.94	0.0799
Yes	95.57 (627)	91.04- 97.86	
Concerned about youth tobacco use			
No	89.31 (61)	62.11- 97.70	0.5426
Yes	93.49 (1019)	90.00- 95.81	

**Table 2: Multivariate logistic regression factors associated with personnel's support for tobacco-free policy in Ugandan schools**

Characteristic		Odds ratio	95% Conf. Interval	p- value
<b>Current smoker</b>				0.003
	No	1.0		
	Yes	0.12	0.03- 0.45	
<b>Tobacco control in school curriculum</b>				0.026
	No	1.0		
	Yes	2.44	1.12- 5.28	
<b>Teacher tobacco use influences students tobacco use</b>				0.002
	No	1.0		
	Yes	8.98	2.41- 33.47	
<b>Tobacco industry should be allowed to sponsor school events</b>				0.022
	No	1.0		
	Yes	4.37	1.26- 15.23	
<b>Tobacco product prices should be increased regularly</b>				0.022
	No	1.0		
	Yes	6.39	1.34- 30.58	

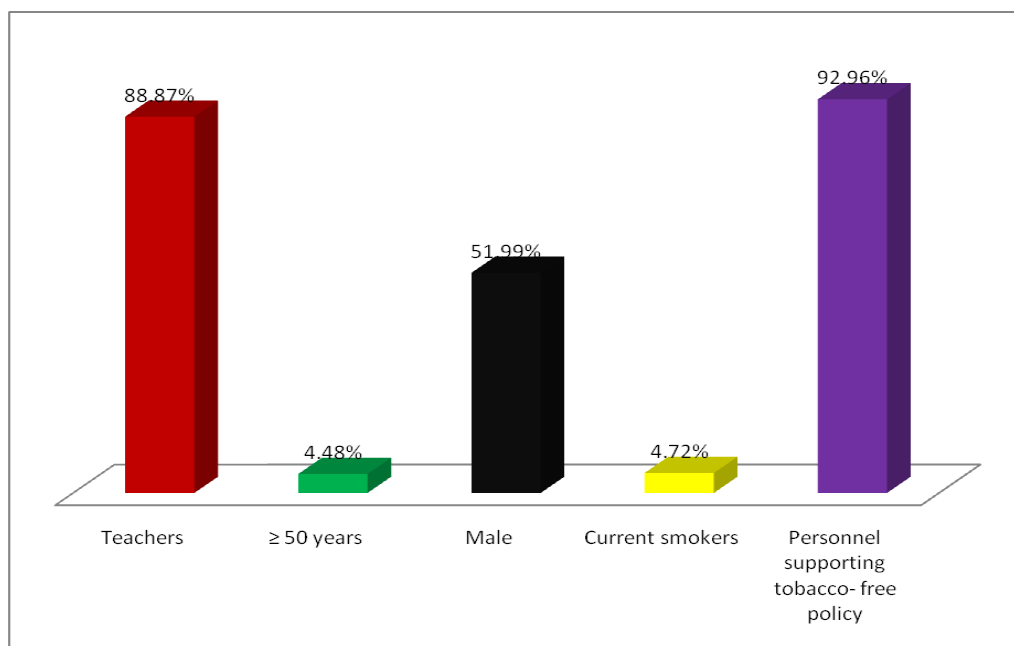
Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

**Table 3: Significant independent variables associated with personnel's support for tobacco-free policy in Ugandan schools in 2011 and 2007**

Characteristic		2007		2011	
		Odds ratio	95% Conf. Interval	Odds ratio	95% Conf. Interval
<b>Current smoker</b>	No	-	-	1.0	
	Yes	-	-	0.11	0.03- 0.45
<b>Tobacco control in school curriculum</b>	No	1.0		1.0	
	Yes	2.50	1.12- 5.5	2.47	1.10- 5.53
<b>Teacher tobacco use influences students tobacco use</b>	No	1.0		1.0	
	Yes	14.26	2.57-79.15	9.03	2.31- 35.38
<b>Tobacco industry should be allowed to sponsor school events</b>	No	1.0		1.0	
	Yes	3.98	1.27- 12.49	4.82	1.22- 19.12
<b>Tobacco product prices should be increased regularly</b>	No	1.0		1.0	
	Yes	6.33	1.38- 29.04	6.96	1.36- 35.59

**Figure 1: Characteristics of study participants**



## C: APPENDICES

### Appendix 1: Data collection tool

#### Questionnaire

##### Instructions:

- Please read each question carefully before answering it.
- Choose the answer that best describes what you believe and feel to be correct.
- Choose only one answer for each question.
- If you have to change your answer, don't worry; just erase it completely, without leaving marks.
- Remember, each question only has one answer.

1. How old are you?

19 years or younger	1
20 to 29 years	2
30 to 39 years	3
40 to 49 years	4
50 to 59 years	5
60 years old or older	6

2. What is your gender?

Female	1
Male	2

3. What is your primary position in this school?

Principal/Headmaster	1
Teacher	2
School health service personnel	3
Clerical staff	4

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

Other type of school personnel	5
--------------------------------	---

4. To what extent are you responsible for teaching about health?

It is one of my primary responsibilities, I teach about health a lot	1
It is not one of my primary responsibilities, but I do teach about health sometimes	2
I do not teach about health	3

5. Have you ever smoked cigarettes?

Yes	1
No	2

6. Have you smoked at least 100 cigarettes in your lifetime?

Yes	1
No	2

7. Have you ever smoked cigarettes on school premises/property during the past year?

Yes	1
No	2

8. Do you now smoke cigarettes daily, occasionally, or not at all?

Daily	1
Occasionally	2
Not at all	3

9. Have you ever used chewing tobacco or snuff?

Yes	1
No	2

10. Have you ever used chewing tobacco or snuff on school premises/property during the past year?

Yes	1
No	2

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

11. Do you now use chewing tobacco, snuff daily, occasionally, or not at all?

Daily	1
Occasionally	2
Not at all	3

12. Have you ever smoked bidis, cigars or pipes?

Yes	1
No	2

13. Have you ever smoked bidis, cigars or pipes on school premises/property during the past year?

Yes	1
No	2

14. Do you now smoke bidis, cigars, or pipes daily, occasionally, or not at all?

Daily	1
Occasionally	2
Not at all	3

15. Have you ever received help from your school to stop smoking cigarettes or using tobacco?

I have never smoked cigarettes or used tobacco	1
Yes	2
No	3

16. Do you think cigarette smoking should be banned in public places?

Yes	1
No	2

17. Do you think smoke from other people's cigarettes is harmful to you?

Yes	1
No	2

18. Do you think teacher tobacco use influences youth tobacco use?

Yes	1
-----	---



Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

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No	2
----	---

19. Do you think teachers need specific training to be able to teach learners how to avoid or stop using tobacco?

Yes	1
No	2

20. Do you think schools should have a policy or rule specifically prohibiting tobacco use among learners on school premises/property?

Yes	1
No	2

21. Do you think schools should have a policy or rule specifically prohibiting tobacco use among school personnel on school premises/property?

Yes	1
No	2

22. Do you think the tobacco industry should be allowed to sponsor school or extra-curricular activities, such as sporting events?

Yes	1
No	2

23. Do you think tobacco product advertising should be completely banned?

Yes	1
No	2

24. Do you think the price of tobacco products should be increased?

Yes	1
No	2

25. Do you think the tobacco industry deliberately encourages youth to use tobacco?

Yes	1
No	2

26. How concerned are you about tobacco use among youth in your community?

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

Very concerned	1
Somewhat concerned	2
Not at all concerned	3

27. Is tobacco use addictive?

Yes	1
No	2
I don't know	3

28. Does tobacco use cause malaria?

Yes	1
No	2
I don't know	3

29. Does tobacco use cause lung cancer?

Yes	1
No	2
I don't know	3

30. Does tobacco use cause heart disease?

Yes	1
No	2
I don't know	3

31. Have you ever advised a student to stop using tobacco?

Yes	1
No	2

32. Can cigarettes or tobacco products be purchased inside your school buildings?

Yes	1
No	2
I don't know	3

33. Can cigarettes or tobacco products be bought within 100 meters of your school buildings?

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

Yes	1
No	2
I don't know	3

34. Does your school have a policy or rule specifically prohibiting tobacco use among learners inside school buildings?

Yes	1
No	2
I don't know	3

35. Does your school have a policy or rule specifically prohibiting tobacco use among learners outside school buildings, but on school premises/property?

Yes	1
No	2
I don't know	3

36. Does your school have a policy or rule specifically prohibiting tobacco use among learners at school sponsored activities wherever they occur?

Yes	1
No	2
I don't know	3

37. Does your school have a policy or rule specifically prohibiting tobacco use among school personnel inside school buildings?

Yes	1
No	2
I don't know	3

38. Does your school have a policy or rule specifically prohibiting tobacco use among school personnel outside school buildings, but on school premises/property?

Yes	1
No	2
I don't know	3

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

39. Does your school have a policy or rule specifically prohibiting tobacco use among school personnel at school sponsored activities wherever they occur?

Yes	1
No	2
I don't know	3

40. How well does your school enforce any of its policy (or rule) on tobacco use among students?

There is no policy or rule on tobacco use among students	1
Completely	2
Partially	3
Not at all	4

41. How well does your school enforce any of its policy (or rule) on tobacco use among school personnel?

There is no policy or rule on tobacco use among school personnel	1
Completely	2
Partially	3
Not at all	4

42. Does your school have a policy or rule prohibiting the use of all forms of tobacco by visitors in all school buildings, on school grounds, and at school-sponsored events?

Yes	1
No	2
I don't know	3

43. Is tobacco use prevention included somewhere in your school curriculum?

Ye	1
No	2
I don't know	3

44. Do you have access to teaching and learning materials about tobacco use and how to prevent its use among youth?

Yes	1
-----	---

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

No	2
----	---

45. Have you ever received training to prevent tobacco use among youth?

Yes	1
No	2

46. Are non-classroom programs or activities (such as an assembly) used to teach tobacco use prevention to students in your school?

Yes	1
No	2
I don't know	3

Factors associated with school personnel's support for tobacco control policies in Ugandan schools: **DISSERTATION: WANYONYI EFN 12148238**

## Appendix 2: Ethics Approval Certificate

The Research Ethics Committee, Faculty Health Sciences, University of Pretoria complies with ICH-GCP guidelines and has US Federal wide Assurance.

- FWA 00002567, Approved dd 22 May 2002 and Expires 20 Oct 2016.
- IRB 0090 2235 IORG0001762 Approved dd 13/04/2011 and Expires 13/04/2014.



UNIVERSITEIT VAN PRETORIA  
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Faculty of Health Sciences Research Ethics Committee

27/03/2014

**Approval Certificate  
New Application**

**Ethics Reference No 88/2014**

**Title** Factors associated with school personnel's support for tobacco control policies in Ugandan schools

**Dear** Ms. Emma WANYONYI

The **New Application** as supported by documents specified in your cover letter for your research received on the 28/02/2014, was approved by the Faculty of Health Sciences Research Ethics Committee on the 26/03/2014.

Please note the following about your ethics approval:

- Ethics Approval is valid for 1 year
- Please remember to use your protocol number (**88/2014**) on any documents or correspondence with the Research Ethics Committee regarding your research.
- Please note that the Research Ethics Committee may ask further questions, seek additional information, require further modification, or monitor the conduct of your research.

**Ethics approval is subject to the following:**

- The ethics approval is conditional on the receipt of 6 monthly written Progress Reports, and
- The ethics approval is conditional on the research being conducted as stipulated by the details of all documents submitted to the Committee. In the event that a further need arises to change who the investigators are, the methods or any other aspect, such changes must be submitted as an Amendment for approval by the Committee.

We wish you the best with your research.

Yours sincerely

**Dr R Sommers**; MBChB; MMed (Int); MPharMed.  
**Deputy Chairperson** of the Faculty of Health Sciences Research Ethics Committee, University of Pretoria

*The Faculty of Health Sciences Research Ethics Committee complies with the SA National Act 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 and 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).*

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♦ Web: /www.healthethics-up.co.za      ♦ H W Snyman Bld (South) Level 2-34      ♦ Private Bag x 323, Arcadia, Pta, S.A., 0007

### Appendix 3: Supplementary tables and figures

#### 3.1: Time Schedule

Activity	2014					
	Jan	Feb	Mar	Apr	May	Jun
First Draft of Research Protocol						
Final Draft of Research Protocol						
Presentation to UP Research Ethics Committee						
Data Collection and preparation						
Data analysis						
First Draft Study Report						
Final Study Report						
Submission						

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

### 3.2: Study budget

Budget Item	Quantity	Units	Unit Cost (ZAR)	Total Cost (ZAR)
<b>Photocopying and Printing</b>				
Research protocol (20 copies)	20	Copies	20	400
Preliminary Report (20 copies)	20	Copies	20	400
Research Report	10	Copies	20	200
Binding	90	Copies	20	1,800
<b>Sub-Total</b>				<b>2,800</b>
<b>Communication and computer consumables</b>				
Internet (Modem and Data bundles)	6	Months	500	3,000
Telephone/Communication expenses	6	Months	500	3,000
Stata software for data analysis	1			2,000
<b>Sub-Total</b>				<b>8,000</b>
Poster	3	Posters	800	2,400
<b>Sub-Total</b>				<b>2,400</b>
<b>Miscellaneous</b>				<b>1,200</b>
<b>GRAND TOTAL</b>				<b>14,400</b>



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DISSERTATION: WANYONYI EFN 12148238

## Appendix 4: Guidelines for authors for journal of school health



Journal of School Health

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Edited By: Robert J. McDermott

Impact Factor: 1.495

ISI Journal Citation Reports © Ranking: 2012: 9/34 (Education Scientific Disciplines); 27/219 (Education & Educational Research); 49/83 (Health Care Sciences & Services); 84/161 (Public Environmental & Occupational Health)

Online ISSN: 1746-1561

### Author Guidelines

#### GUIDELINES FOR AUTHORS

These guidelines are to assist prospective authors in preparing manuscripts for the *Journal of School Health*. Failure to follow the guidelines completely may delay or prevent consideration of a manuscript. Contact the *Journal* Editor-in-Chief, Robert J. McDermott, PhD, for general inquiries: email [rjmcdermott@ashaweb.org](mailto:rjmcdermott@ashaweb.org).

#### Mission

The *Journal of School Health* is committed to communicating information regarding the role of schools, school personnel, or the school environment in facilitating the healthy growth and development of children and youth. This focus on healthy children and youth pre-K to 12th grade encompasses a wide variety of areas including health education; physical education; health services; nutrition services; counseling, psychological, and social services; healthful school environment; health promotion for staff; and family/community involvement. *Journal* readership includes researchers, school administrators, health educators, nurses, physicians, dentists, psychologists,

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

## DISSERTATION: WANYONYI EFN 12148238

counselors, social workers, nutritionists, dieticians, and other health professionals. These individuals work cooperatively with parents and the community to achieve the common goal of providing the programs, services, and environment necessary to promote healthy children and youth.

**NOTE: Manuscripts that focus principally on clinical health issues, on general education issues without a health-related focus, or on collegiate audiences are not typically appropriate for publication consideration.**

### Manuscript Categories

Manuscripts may be submitted for possible publication in any of the following categories:

- General Articles

General articles include review, theoretical, developmental, historical and philosophical manuscripts. Review articles address topics of broad reader interest and appeal. They should provide systematic, critical assessments of the literature and creative discussion of topics relevant to children and youth pre-K to 12th grade. The manuscript should contain the following major sections **boldfaced**, in all CAPITAL letters, and appearing flush left, presented in this order: **ABSTRACT** (unstructured  $\leq 200$  words including headings), **BACKGROUND**, **LITERATURE REVIEW** - including subsections appropriate to the theme of the manuscript, **IMPLICATIONS FOR SCHOOL HEALTH**, and **REFERENCES**. Secondary headings should be **bolded** and appear flush left. For *secondary headings*, only the first letter of each word should be capitalized. If there is a *third level of heading* it should begin the paragraph and be indented, be followed by a period, have **ONLY** the first letter of the first word capitalized, be both *italicized* and **boldfaced**, and end in a period. **DO NOT USE UNDERSCORES ANYWHERE** in the article.

- Research Articles

Most papers appearing in the *Journal* are research articles that report the findings of original, data-based research. They may use quantitative, qualitative, or mixed-methods approaches. The research should directly relate to children and youth pre-K to 12th grade. The *Journal* does not consider papers based on college samples. The manuscript should contain the following **boldfaced** sections presented in this order:

**ABSTRACT** (The **ABSTRACT** is structured with four **boldfaced** headings – **BACKGROUND**, **METHODS**, **RESULTS**, and **CONCLUSIONS** and is  $\leq 200$  words in length, including headings). The main text of the paper should begin with an unlabeled section that is an introduction and reports background related to the paper, usually indicating the subject's significance and summarizing what is known about the subject to date, and including research questions or hypotheses being tested, and the study's purpose. Subsequent to this section should appear the following major headings appearing **boldfaced** and flush left consisting of: **METHODS** (generally including the following sub-headings: **Participants** (*not Subjects*), **Instrumentation**, **Procedure**, and **Data Analysis**), **RESULTS**; **DISCUSSION** (*describes the importance and contribution of the findings, limitations, and conclusion*); and **IMPLICATIONS FOR SCHOOL HEALTH** (*describes how the information and data presented will help inform school health practice; this section must be interpretative and directive and translates the data for possible actions to be considered by school*

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

personnel; it should not merely be a gratuitous inclusion – in other words, it should present the actions that schools might undertake but recommended implications/actions should take into consideration budgetary and other constraints that influence decision making by school personnel); **Human Subjects Approval Statement** (a statement indicating approval of the appropriate institution review board or ethics committee for studies involving human participants); **ACKNOWLEDGEMENTS**; **REFERENCES**; and **Figures and/or Tables**. Research articles should include the year and time frame in which the data were collected, as well as information concerning the psychometric properties of instrumentation (validity, reliability, readability, etc.) where appropriate. For research articles, preparation of second-level and third-level headings should follow the style described above for general articles.

The outline below shows how a research article should appear when submitted. Please follow this example to minimize the chance of your paper being rejected or returned without being reviewed. Note the major headings that should appear in all CAPITAL letters.

**ABSTRACT**

**BACKGROUND:** (concluding with purpose of the study)

**METHODS:**

**RESULTS:**

**CONCLUSIONS:**

**Keywords:** (select from dropdown list)

**BACKGROUND** (If your paper is accepted for publication, no actual heading will be used in the published version; it is useful to include during the review process but it is not required; if you prefer, just begin with the main body of the manuscript text to address the relevant literature in review, research questions, and purpose of study)

**METHODS**

**Participants**

**Instruments**

**Procedure**

**Data Analysis**

**RESULTS**

**DISCUSSION**

**Limitations**

**Conclusions**

**IMPLICATIONS FOR SCHOOL HEALTH**

Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

## DISSERTATION: WANYONYI EFN 12148238

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**DISSERTATION: WANYONYI EFN 12148238**

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John L. Smothers, PhD (Corresponding Author)

Assistant Professor

Northwest University

2801 W. Bancroft St.

Fargo, North Dakota 58105

Phone: (701) 785-4180

Fax: (701) 785-4759

Email: [jlsmothers@nwu.edu](mailto:jlsmothers@nwu.edu)

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Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

**DISSERTATION: WANYONYI EFN 12148238**

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6. Goss v. Lopez, 419u.s. 565 (1975).
7. Utah Code Ann. §53A-13-302 (2005).

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Factors associated with school personnel's support for tobacco control policies in Ugandan schools:

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