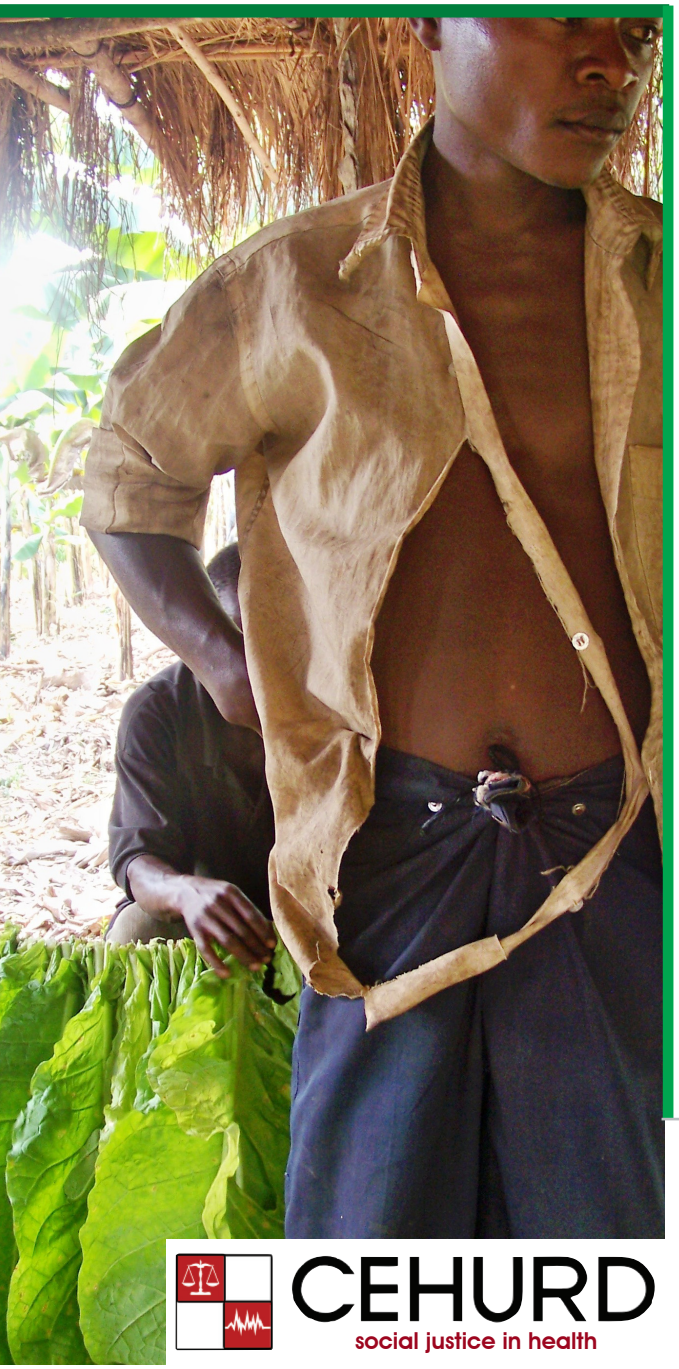
EFFECTS OF TOBACCO ON HIV-AFFECTED COMMUNITIES



The case of small-holder tobacco farmers in Ntwetwe subcounty, Kyankwanzi district

June 2013

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ACKNOWLEDGEMENT

Center for Health, Human Rights and Development (CEHURD) reconizes the contribution of the lead researcher, Mr Richard Hasunira, and the CEHURD staff that supported him with data collection and overall coordination of the survey: Mr Moses Mulumba, Mr David Kabanda, Ms Primah Kwagala; Juliana Nantaba; and Francis Serunjogi. Mr Deo Ssemata mobilized the respondents, while Ms Lipi Mishra provided technical guidance. This report was authored by Mr Richard Hasunira and reviewed by Ms Primah Kwagala and Mr Moses Mulumba.

CEHURD is grateful to UNDP Uganda for the financial support that made this work possible.

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LIST OF ACRONYMS

BAT	British American Tobacco
CEHURD	Center for Health, Human Rights and Development
FCTC	Framework Convention on Tobacco Control
HC	Health center
NCDs	Non-communicable diseases
NEMA	National Environment Management Authority
UDHS	Uganda Demographic and Health Survey
TB	Tuberculosis
VHT	Village Health Team
WHO	World Health Organization

EXECUTIVE SUMMARY

Background

The Tobacco Control Bill, which seeks to fulfill Uganda's international obligations on regulation of tobacco consumption and exposure, is currently before Parliament. The Bill prohibits smoking in public places, work places and public transport (Clause 11); bans advertisement and promotion of tobacco products (Clause 13); restricts the sale and display of tobacco products (Clause 15); introduces specific packaging and labeling requirements (Clause 14); prohibits supply of tobacco products to minors (Clause 16); and insulates public health policies from commercial or other vested interests of the tobacco industry (Clauses 18-24), among other measures.

Given scientific evidence that exposure to tobacco smoke causes disease, disability and death, enacting the Bill with robust tobacco control measures to protect the public, and particularly certain vulnerable groups, will facilitate the realization of the right to a clean and healthy environment (Article 39 of the Constitution), the right to life (Article 22(1)); and the right to health (Objective XIV of the National Objectives and Direct Principles of State Policy of the Constitution).

It has been established that exposure to tobacco through smoking is associated with poorer outcomes in HIV-associated opportunistic infections, of which TB is the commonest. The incidence rates of TB have risen rapidly as a result of the HIV epidemic. Evidence further indicates that smokers are almost twice as likely to be infected with TB and to progress to active disease.[1] [2] [3] Smokers are also twice as likely to die from TB.

Purpose of the survey

To inform debate on the Bill, and to ensure that a broader range of vulnerable groups are protected from exposure to second hand smoke, Center for Health, Human Rights and Development (CEHURD) undertook a survey among tobacco farmers in Kyankwanzi district to assess the effects of tobacco at both the farm and consumption levels, on HIV-affected communities. This report summarizes the results from the survey and explores links between tobacco exposure with tuberculosis (TB) and HIV/AIDS.

Approach

The work involved a survey of small-holder tobacco farmers in Ntwetwe Subcounty of Kyankwanzi district. Separate information meetings were held with farmers as well as with the leadership of Ntwetwe subcounty. Information was also gathered from Ntwetwe Health Center IV and Kiboga Hospital through interviews and a review of official records.

Results

This survey identified community experiences with TB and HIV and the implications of tobacco farming, handling and consumption for people infected and affected by HIV/AIDS and TB in Ntwetwe subcounty.

1 Bates MN, Khalakdina A, Pai M, et al. Risk of tuberculosis from exposure to tobacco smoke: a systematic review and meta-analysis. Arch Intern Med 2007;167:335–342.

2 *Slama K, Chiang CY, Enarson DA, et al. Tobacco and tuberculosis: a qualitative systematic review and meta-analysis. Int J Tuberc Lung Dis 2007;11:1049–1061.*

3 *Lin HH, Ezzati M, Murray M. Tobacco smoke, indoor air pollution and tuberculosis: a systematic review and meta-analysis. PLoS Med 2007;4:e20*

Issues relating to community experiences with TB and HIV

- Ntwetwe subcounty is a high TB and HIV prevalence area. Both Ntwetwe Health Center IV and Kiboga Hospital reported high numbers of TB and HIV cases from the subcounty, including a high incidence of co-infection. At Kiboga Hospital, the number of people diagnosed with active TB ranged between six and 23 per month over the 10-month period leading up to the survey.
- Health workers reported that some of their HIV clients are smokers and have failed to stop smoking due to addiction.

Issues relating to cultivation

- Tobacco farming may be hastening the death of persons living with HIV(PLHIV) in Ntwetwe due to the hard labor it demands, with at least six PLHIV reported to have died recently.
- Tobacco farming households are prone to food shortages due to competition for land and labor between tobacco and food crops.
- High levels of exposure to tobacco and toxic chemicals used to control pests during farming and handling was noted as a particular danger to PLHIV.

Issues in tobacco marketing

- Exploitation of powerless farmers by BAT, which is solely and reportedly arbitrarily in charge of grading, sorting and valuing farmer' produce.
- Unfair sharing of proceeds among people contributing farm labor, to the disadvantage of women and children.
- Child abuse in tobacco-growing communities, particularly in employing minors in the taxing work on tobacco farms, usually at the expense of their education, and exposing them to tobacco at a tender age.
- Increased risk of HIV among men who are targeted by sex workers when they go to market the produce in Hoima, where they are required to spend days as their leaf is graded and payment processed.

Issues in tobacco consumption

- Smoking is on the rise among youth, especially among adolescents and youths.
- Tobacco farming has fueled the use of unprocessed tobacco in Ntwetwe subcounty
- Farmers are highly exposed to tobacco during cultivation, harvesting, drying and marketing.

Proposals for the Tobacco Control Bill

- The Tobacco Control Committee proposed under section 3 (Part II) of the Bill to implement and develop tobacco control policies should be an independent body consisting of experts with high integrity.
- The Bill should address the fears of farmers with a framework for shifting to alternative livelihoods.
- Farmer's rights against exploitation by multinational tobacco companies should guaranteed.
- The Bill should provide for the tobacco industry's responsibility to offset the health effects of tobacco exposure.

1. BACKGROUND

Strong smoking restrictions, whether imposed by public laws or private firms, reduce smoking behaviors.[1] Studies have found that higher taxes and clean air laws tend to have a huge impact on smoking rates. Evidence also indicates that media campaigns, when implemented with other policies, are also important.[2]

The Government of Uganda banned tobacco smoking in public places in 2004, following a High Court declaration that smoking in public places was a violation of non-smokers' constitutional rights to life and to a clean and healthy environment. Offenders are liable to a fine of UGX 20,000 (US$8). Operators of hotels and other public places who allow customers to smoke on their premises are liable to a fine of UGX 300,000 (US$120).

The ban was effected through regulations [National Environment (Control of Smoking in Public Places) Regulations 2004]. These regulations were never backed with a policy, and mainly because of this reason, exposure to tobacco fumes through active and passive smoking continued unabated. The Global Adult Tobacco Survey has estimated that in 2003, 7.9% (1.3 million) Ugandans aged 15 and above were using tobacco products: 11.6 men and 4.6 women. An esimated 2.2 million adults were exposed to secondhand smoke in homes, while another 500,000 were exposed at work places.

It is against this background that the Tobacco Control Bill was drafted and tabled in Parliament in February 2014. The Bill is a private members bill sponsored by Hon. Chris Baryomunsi, Member of Parliament for Kinkizi East. The Bill guarantees the right of everyone to a tobacco-free environment and requires person consuming a tobacco product to ensure that he or she does not expose another person to tobacco smoke.

Uganda banned tobacco smoking in public places in 2004... The ban was effected through National Environment (Control of Smoking in Public Places) Regulations 2004

By regulating "the manufacture, sale, labeling, promotion, advertising and sponsorship of tobacco products in Uganda", the Bill will, if enacted and enforced in its current form, constitute a major step in meeting the country's obligations under the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC). It will also be an important tool in realizing the right to a clean and healthy environment, and the right to life, which are provided for under the Constitution of Uganda.

The objective of the Bill is "to protect people in both the present and future from the devastating health, social, economic and environmental consequences of exposure to tobacco smoke". This section captures the larger aspects and effects of smoking, beyond the immediate health effects but sadly ignores the people whose health may also be affected through exposure to tobacco during cultivation, harvesting, drying, transportation and processing.

Further, the Bill (Part IV) places a comprehensive ban on all advertising, promotion and sponsorships, including the tobacco industry's contributions to, and publicity of, so-called social corporate responsibility activities, whose aim, process or likely effect is to directly or indirectly promote tobacco products and tobacco use. Publicity of what tobacco companies have claimed to be corporate social responsibility activities has been an effective strategy of circumventing current restrictions on tobacco advertising and promotion.

A Tobacco Control Committee is proposed in Part II of the Bill, to implement and develop tobacco control policies and mobilize resources for tobacco control.

1 DT Levy, F Chaloupka, J Gitchell, "The Effects of Tobacco Control Policies on Smoking Rates: A Tobacco Control Scorecard" (2004) 10:4 Journal of Public Health Management Practice 338.

2 Ibid.

2. METHODOLOGY

This work gathered and analyzed views from people involved in tobacco farming and other community stakeholders in Kyankwanzi and Kiboga districts in central Uganda. The survey engaged 20 small-holder farmers and visited and observed tobacco farms in the subcounty. Data was collected through information meetings with tobacco farmers and local leaders, and through personal interviews with health workers at Ntwetwe Health Center IV and Kiboga Hospital. Secondary data was obtained from Kiboga district administration as well as from records at health facilities.

The meeting with local leaders was attended by the Local Council III (Subcounty) Chairperson, the Senior Assistant Secretary, the Community Development Officer, the Health Assistant, and subcounty mobilizer. Key informant interviews were held with the management and staff of Ntwetwe Health Center IV and Kiboga Hospital.

The information was gathered in the second week of June 2013.

3. TOBACCO EXPOSURE, TB AND HIV

Exposure to tobacco through smoking is associated with poorer outcomes in HIV-associated opportunistic infections, of which TB is the commonest. The incidence rates of TB have risen rapidly as a result of the HIV epidemic. Evidence shows that the risk of active TB doubles in the first year of HIV co-infection. HIV-TB co-infected individuals have reduced survival and are at higher risk for subsequent opportunistic infections. The risk of developing TB is estimated to be between 20-37 times greater in people living with HIV than among those without HIV infection. In 2011, there were 8.8 million new cases of TB worldwide, of which 1.1 million were among people living with HIV.[3]

Evidence further indicates that smokers are almost twice as likely to be infected with TB and to progress to active disease.[4 5 6] Smokers are also twice as likely to die from TB. Evidence is strong for TB disease, but is less so for TB infection and TB mortality. If, as believed, smoking turns stable subclinical infection by the tubercle bacillus, which is widespread in Africa and elsewhere, into active disease, smoking would also be expected to contribute to the spread of TB infection by making latent disease more active and infectious.[7]

HIV is driving the TB epidemic: if tobacco smoking increases the impact of TB in HIV-negative individuals, its effect in HIV-positive individuals may be significantly greater. Preliminary data from a small study in sub-Saharan Africa supports the association of tobacco smoke and TB in HIV-infected individuals.[8] The authors found that smoking status and HIV status were the two key risk factors for TB infection. These findings were based on a case-control study of 153 men from Addis Ababa, Ethiopia.

Preliminary data from a small study in sub-Saharan Africa supports the association of tobacco smoke and TB in HIV-infected individuals

However, it was not clear whether smoking causes additional mortality risk in persons who already have active TB.[9] Evidence shows that active smoking was significantly associated with TB infection, and both active and passive smoking were significantly associated with TB disease. Evidence also shows that tobacco smoking is positively associated with TB, regardless of the specific TB outcomes. And compared to people who do not smoke, smokers have an increased risk of having a positive tuberculin skin test, of having active TB, and of dying from TB.

Studies that have examined the plight of tobacco farmers' and tobacco growing communities have analyzed the issue with respect to the farmers' experiences and knowledge on the industry and the implications of that on tobacco control more broadly. In a study by researchers at the University of Nottingham, investigators examined the extent to which tobacco control policies were implemented in Ghana.

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3 The World Health Organization. TB and HIVhttp://www.who.int/hiv/topics/tb/en/

4 Bates MN, Khalakdina A, Pai M, et al. Risk of tuberculosis from exposure to tobacco smoke: a systematic review and meta-analysis. *Arch Intern Med* 2007;167:335–342.

5 Slama K, Chiang CY, Enarson DA, et al. Tobacco and tuberculosis: a qualitative systematic review and meta-analysis. *Int J Tuberc Lung Dis* 2007;11:1049–1061.

6 Lin HH, Ezzati M, Murray M. Tobacco smoke, indoor air pollution and tuberculosis: a systematic review and meta-analysis. *PLoS Med* 2007;4:e20

7 van ZylSmit RN, Pai M, Yew WW, Leung CC, Zumla A, Bateman ED, Dheda K.Global lung health: the colliding epidemics of tuberculosis, tobacco smoking, HIV and COPD. (2010) 35:1 *European Respiratory Journal* 27.

8 Ramin B, Kam D, Feleke B, et al. Smoking, HIV and non-fatal tuberculosis in an urban African population. *Int J Tuberc Lung Dis* 2008;12:695–697.

9 Bates, supra note 2.

The investigators found that the barriers to implementing the Framework Convention on Tobacco Control (FCTC) included the absence of a legal framework, lack of enforcement of existing tobacco control initiatives, limited resources, lack of prioritization of tobacco control initiatives and lack of capacity. There were found to be major obstacles to effective policy implementation in countries such as Ghana, and overcoming these obstacles was determined to represent a major hurdle to the future success of the FCTC.[10]

A study that examined the knowledge of tobacco growers with respect to tobacco economics (which includes issues of revenue distribution and foreign prices), found that farmers lacked knowledge of the distribution of the tobacco dollar.[11] This knowledge gap calls for education of the grassroot farmer if they are to take informed positions on matters of health policy regarding tobacco. Furthermore, younger age, higher levels of education and larger farm size were associated with growers' knowledge of the distribution of retail tobacco money. Importantly, the investigators found that a minority of tobacco growers could accurately report how retail tobacco sales money was distributed.

A study of particular interest was conducted by Griffith and examines the moral economy of tobacco.[12] The investigators conducted a qualitative survey of American tobacco farmers. While the demographic is not an especially equivalent comparison to the African context, the results surrounding the profession present some interesting insights, nonetheless. In particular, the author concludes by positing that "in the case of growing tobacco in an advanced capitalist economy... asserting a moral right to produce tobacco has been frustrated by the prevailing view of tobacco as immoral because it is socially and individually harmful."[13] It would be interesting to investigate whether this thought process applies in less developed economies or because of the overwhelming burden of capacity constraints, the issue of moral balance is rendered moot.

An article of particular relevance by Muwanga-Bayego explores tobacco farming in the Ugandan context.[14] The emphasis of this article is the examination of the impact of the tobacco industry on Ugandan women and children as well as the environment. The author elucidates the burden placed on women in these communities. In particular, women in these communities often have to circumvent other domestic duties in order to tend tobacco crops (which are very labor intensive). Other issues on tobacco farms include the "misbehavior" of men, who use the earnings from tobacco farming on alcohol and to procure other wives. Furthermore, the author notes that cultivating tobacco denies many farmers the opportunity to send their children to school. With respect to environmental implications of the industry, the author notes the scarcity of wood fuel and deforestation as pressing issues in relation to tobacco farming.

10 http://www.biomedcentral.com/1471-2458/10/1
11 http://her.oxfordjournals.org/content/15/2/175.long
12 Griffith D, The moral economy of tobacco. American Anthropologist, 2009; 11:4.
13 Ibid.
14 Muwanga-Bayego H, Tobacco growing in Uganda: the environment and women pay the price. Tobacco Control, 1994; 3.

4. TOBACCO GROWING IN NTWETWE SUBCOUNTY

A tobacco garden in Ntwetwe: The acreage of tobacco farms can go up to five, but farmers generally operate farms in the range of one to two acres

Ntwetwe is one of the subcounties that make up Kyankwanzi district, which was until 2007, part of Kiboga district. In 1999, Kiboga had an estimated population of 174 800, a population density of 41 persons per sq. km, 14 subcounties, 67 parishes and 463 villages. The population of Ntwetwe subcounty, like the rest of Kyankwanzi and Kiboga districts, is predominantly poor.

Ntwetwe subcounty has 10 parishes, five of which have sizeable numbers of people involved in small-holder tobacco farming. These include Bulagwe, Nkandwa, Natoole, Kitabula and Kitwala parishes. At the time of the survey, there were 523 registered tobacco farmers in Ntwetwe subcounty. The number of farmers oscillates from season to season. From the records, it reduced from a peak of over 1000 in 2009 to a low of about 400 in 2011. The farmers' leadership indicated that the numbers were just picking up again.

The biggest threats to tobacco farms are pests and weather vagaries, particularly drought, floods and hailstorms. Pests are managed with support from British American Tobacco (BAT) which provides technical support as well as the chemicals for spraying the crop.

> *"This time round drought has been the problem; tobacco has dried up. All farmers are in tears; they have lost their tobacco. The crop has not done well at all because of insufficient rain," –* Livingstone Kibirango, tobacco farmer

The decision to begin tobacco farming is largely based on monetary considerations. One reason for this is that Uganda's tobacco giant, BAT, provides significant financial and technical support to farmers. Furthermore, the price of tobacco is relatively higher than those of alternative crops and are fairly predictable.

BAT provides farmers with inputs and cash loans, which the company recovers from the farmers' payments after harvest. All the tobacco grown in Ntwetwe subcounty is sold exclusively to BAT, which sets the price of the final product as well as of the inputs it gives on loan.

> *"I started growing tobacco this year and this is my first season. I was motivated by the fact that the company (BAT) gives us loans to enable us establish our gardens. I planted half an acre and I have just started harvesting. The size of the loan depends on the size of the garden you have. I have a small piece of land, that is why I could only plant half an acre, but the bigger the farm size the better. You stand (a chance) to get more money (in financial support),"* – female tobacco farmer in Ntwetwe subcounty

The size of the tobacco farms differs depending on the ability of farmers, but they are relatively small due to the fact that tobacco is a labor intensive crop and also because of the shortage of land. The acreage of tobacco farms can go up to five, but farmers generally operate farms in the range of one to two acres.

The season for tobacco farming begins in November with the clearance of the garden and sowing of the seeds in a "mother bed". The farming season ends with marketing of the dried tobacco leaves around August. It is a relatively longer process when compared to that of maize, for instance, which tobacco farmers reported to be the next best crop of choice. From the "mother bed", tobacco seedlings are transplanted to a "resetting bed" where they are then removed after one and a half months and to the prepared garden.

Tobacco demands a lot of care throughout the process, and requires the application of different fertilizers and pesticides at different stages of the crop maturation process. Weeds are controlled by weeding, and poor attention to detail will cost the farmer dearly. All respondent farmers participating in this survey reported that they use family labor in the tobacco plantations, but some said they supplement the family labor with casual laborers who they pay from their own resources or from loans received from BAT.

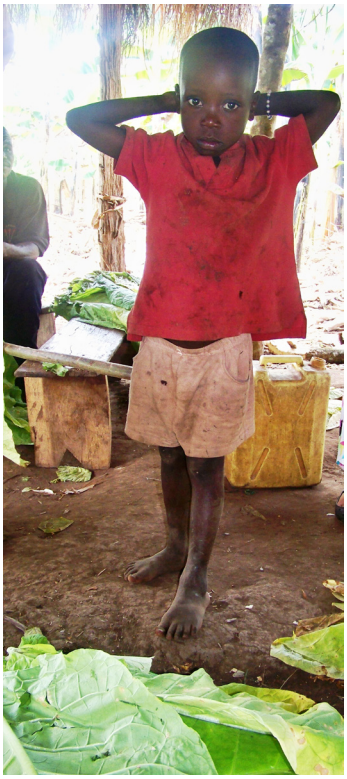
> *"We have a problem with the chemicals that the company gives us to spray in the tobacco farms… The company gives the chemical and these are very strong chemicals because you can feel them as you spray after diluting them with water, but they have been reluctant to give us the protective wear. We have appealed to the company over and over, because when you read the labels, they show that this is poison, but we handle them with bare hands. They have not even directed us where we can buy the protective wear on our own. I think in the long-term our health is being affected,"* – leader of tobacco farmers in Ntwetwe subcounty

Harvests start in May through June. By the time of harvest, the farmer should have constructed a drying shed to protect tobacco from direct sunlight, extreme temperatures, and from rain. In the shed, the harvested leaves are expertly stitched on lines and carefully hanged up in stacked layers. The liners have to be shifted around throughout the three-week drying period to ensure aeration and to avoid growth of mould. And while this style of drying tobacco may be strenuous, the procedure of drying it through smoking as used in other parts of the country and preferred by tobacco processors, is even more cumbersome and costly.

Given the nature of tobacco growing, three key concerns have been identified in relation to people infected and affected by HIV and AIDS:

- **Tobacco farming may be hastening the death of persons living with HIV in Ntwetwe**: The demanding nature of tobacco cultivation causes special challenges for people living with HIV among the farming community. The leader of tobacco farmers in Ntwetwe subcounty reported that at least six farmers had died of HIV/AIDS in the past couple of years, with their deaths likely being hastened by the hard labor that tobacco farming demands.

  The farmers have also speculated that the health effects of exposure to tobacco during the long hours of cultivation and handling intensify the already existing health challenges of individuals living with HIV. In his opinion, a typical farmer who becomes HIV-positive may not stand more than one season of tobacco without going down or even dying.



Tobacco depends on family labour, but women and children rarely get a fair share of proceeds

- **Tobacco farming households prone to food shortages:** A second concern with tobacco among local leaders and the farming households is the nutritional challenge it poses. Due to rapid population growth in Kyankwanzi district, household and individual land holdings are shrinking, which has increased the opportunity cost of growing tobacco. One farmer lamented that he could only save a maximum of half an acre of his land to grow tobacco and save the rest for food crops, because he is unable to rely on income from tobacco (which comes once a year) to provide basic necessities for his family on a day-to-day basis.

  The local leadership reported that many tobacco farmers seldom think about such balancing, and as a result, they end up committing bigger chucks of their land to tobacco, and nothing or little to food crops.

  In households with HIV positive children and adults, who tend to have extra nutritional needs, involvement in tobacco production leads to undue nutritional deficiencies, and food shortages may accelerate disease progression.

- **High levels of exposure to tobacco and toxic chemicals during farming and handling:** The third concern with tobacco as far as persons living with HIV are concerned is the exposure to tobacco that comes with the routine work of tobacco cultivation and handling. Tobacco farmers reported that they are able to sense the strong tobacco odor as they tend to tobacco in the garden. They reported the smell gets stronger during the drying process as they work in the drying shed.

  Tobacco requires the application of different fertilizers and pesticides at different stages of the crop maturation process.

5. TOBACCO MARKETING

Tobacco farmers in Ntwetwe subcounty grow the crop under contract with BAT, and are therefore obliged to sell the dried leaf to the company. During harvesting, farmers carry out the initial grading of the tobacco by leaf length, texture and other attributes. The company transports the dried leaf from the farmers to a local store, from where it then transports it to its silos and processing plant at Kibaki in Hoima town. At Kibaki, the leaf is graded, sorted and valued before farmers are paid through PostBank. This process requires farmers to spend a night or more in Hoima.

It is also at times frustrating as some farmers learn that their tobacco is worth much less than they had expected. Tobacco is generally graded into three categories (B1, C1 and X1) on the basis of its quality, and only the best quality (B1) is bought at the predetermined price. The rest is bought at significantly less, making the final earnings unpredictable. There were allegations during the focused group discussion with farmers that BAT staff in charge of grading and valuing are induced to favor some of the farmers.

The system of producing, handling and marketing tobacco raises four key issues: unpredictability of income from the sale of tobacco; power relations at the household level; child labor and exposure of children to tobacco while at a tender age; and the increased risk of HIV infection when family heads (often men) are targeted by sex workers at the point of sale. A few further observations on these issues are outlined below:

Leaf tobacco starked in a drying shelter

1) While the price of tobacco is predetermined, the grading, sorting and valuing system makes the returns uncertain to farmers. It was alleged that BAT staff have the sole responsibility of grading, and are capable of disadvantaging certain farmers unless they are given a bribe.

2) The system of marketing tobacco has created friction within families where the sharing of proceeds from the sale of tobacco is considered unfair. While household members are usually all involved in tobacco farming, it is often the household head who delivers the tobacco to the market and collects the payment. Women participating in tobacco growing complained that their husbands do not declare the money from tobacco.

3) The system of using family labor on farms raises the concern about using minors in the taxing work on tobacco farms and exposing them to tobacco. The survey team witnessed children being involved in preparing tobacco in the drying shed. One of the respondents also reported having been involved in tobacco farming on her father's farm since childhood. This practice carries potential health risks for children.

4) There was also a fear among local leaders in Ntwetwe subcounty that tobacco may indirectly be contributing to increased prevalence of HIV in the community. They reported that tobacco farmers are under temptation to sleep with sex workers who target them at the tobacco market in Hoima, where they spend nights in lodges and are paid in a lumpsum.

6. TOBACCO CONSUMPTION

Current estimates of tobacco smoking rates stand at 49% for males and 8% for females in low- and middle-income countries, and 37% for males and 21% for females in high-income countries.[15] Tobacco is the single most preventable cause of death in the world today. It kills more than 5 million people per year, with more than 80% of those deaths occurring in the developing world.[16] In Uganda, the prevalence of smoking among adults is approximately 17% but can range from 15% to 26% depending on the region.

Respondents reported several ways in which tobacco is consumed at the community level. The vast majority of tobacco consumption occurs through smoking. Local leaders expressed worry that the youth have taken to cigarette smoking in large numbers due to peer pressure, ready availability of cigarettes, and idleness due to high levels of unemployment and gambling.

Respondents also reported the use of unprocessed tobacco being prevalent in Ntwetwe subcounty. It was however, reported that those who use unprocessed tobacco prefer the traditional variety which is considered more potent than the commercial type meant for BAT. The subcounty has farmers who concentrate on traditional tobacco which they sell in open markets. The traditional variety of tobacco is reportedly far more expensive as a single leaf may go for up to Ushs 1,000. At this rate, it is more expensive than the best priced, first grade commercial tobacco which is typically sold for Ushs 5,000 per kg. However, the farmers of the traditional variety have much smaller gardens. Farmers participating in the focused group discussions reported that at times the consumers of traditional tobacco experience shortages and approach them for the commercial variety.

Unprocessed tobacco is either rolled and smoked directly, chewed as leaves, leaked as ash, or ground and sniffed. It is likely that the presence of tobacco farming in the subcounty has influenced tobacco consumption at the community level.

Tobacco consumption in its different forms has several implications:

- **Smoking is on the rise among youth:** There is a concern at the community level that cigarette smoking is on the rise, especially among adolescents and youths. Starting to smoke early in life suggests that people will smoke for longer in life, and that the health impact may be greater on tender respiratory organs.

- **Tobacco farming fuels use of unprocessed tobacco:** Use of unprocessed tobacco may not be as wide spread as cigarette smoking, but its existence is a major concern because of the elevated health risks it poses. It is possible that the use of unprocessed tobacco is fueled by the presence of tobacco farming – of both the traditional and commercial varieties.

- **High exposure to tobacco among farmers:** Tobacco farming communities have higher exposure to tobacco during cultivation, harvesting, drying and marketing. Since tobacco farming engages entire households, exposing everyone in the household to the odor from tobacco leaves. This suggests that people living with HIV, who tend to have compromised immunity, may be at a higher health risk given that they are in an environment where they cannot avoid tobacco. Farmers reported that it is usual to feel dizzy when working on tobacco, especially in drying sheds during the rainy season when it has to be closed to protect it from moisture.

15 Van Zyl, supra note 5.
16 Ibid.

7. COMMUNITY EXPERIENCES WITH TB AND HIV

HIV is driving the TB epidemic. If tobacco smoking increases the impact of TB in HIV-negative individuals, its effect in HIV-positive individuals may be significantly greater. Preliminary data from a small study in sub-Saharan Africa supports the association of tobacco smoke and TB in HIV-infected individuals.17 The authors of this study found that smoking status and HIV status were the two key risk factors for TB infection. These findings were based on a case-control study of 153 men from Addis Ababa, Ethiopia.

Ntwetwe subcounty is a high TB and HIV prevalence area. At Ntwetwe Health Center IV, an average of 4 cases are registered per month. Respondents at the health center considered TB a major public health problem in the community, and attributed the high prevalence to low immunity and poor housing.

The health center provides diagnostic and treatment services for TB and HIV. It has an estimated 850 people in HIV care, and five of them were reportedly known to be co-infected with TB at the time of the survey. The health center is linked to the community through parish-level TB focal persons, who provide treatment adherence support and help with patient follow-up.

Health workers reported that some of the HIV-positive people registered at the health center's HIV clinic are tobacco smokers. Respondents at Kiboga Hospital also reported that they were facing a problem of HIV-positive clients who cannot stop smoking due to addiction.

> *"Some patients come here for treatment when they are smelling smoke and even though we counsel them they never stop"* – respondent at Kiboga Hospital

Ntwetwe HC IV refers complicated TB and HIV cases to Kiboga Hospital. Some of the cases that have been referred have been of clients who were HIV and TB co-infected and anemic at the same time, and required blood transfusion before being initiated on treatment.

At Kiboga Hospital, the number of people diagnosed with active TB ranged between six and 23 per month over the 10 month period leading up to the survey. Clients visiting the hospital are referred for a TB test if they have a cough that has not healed within two weeks and have chest pains.

Kiboga Hospital holds TB clinics on Fridays. However, health workers at the clinic reported that clients are diagnosed throughout the week, and then are asked to return on the following Friday.

Most of the TB patients who come to the hospital from Kyankwazi district without referral come from subcounties of Watuba and Mulagi because these are closer to Kiboga Hospital than to Ntwetwe HC IV. Patients who come to Kiboga Hospital from Ntwetwe subcounty are by referral from the health center.

> *"There are a number of diseases caused by tobacco such as chest infections, blood vessel disorders, TB among others. It should however be noted that TB is not purely cigarette related as one can contract it even if he or she is not smoking… There are less cases of TB here in Kiboga except in Ntwetwe health center IV where more cases are reported and we also get some referrals cases from them." – Medical Superintendent, Kiboga Hospital*

17 Ramin B, Kam D, Feleke B, et al. Smoking, HIV and non-fatal tuberculosis in an urban African population. Int J Tuberc Lung Dis 2008;12:695–697.

Number of people tested for TB at Kiboga Hospital

MONTH	NUMBER OF PEOPLE SUSPECTED AND TESTED	POSITIVE
May 2013	94	06
April 2013	107	23
March 2013	122	12
February 2013	103	07
January 2013	114	13
December 2012	113	14
November 2012	108	09
October 2012	113	08
September 2012	85	10
August 2012	166	07
July 2012	89	06
TOTAL	**1,214**	**115**

Source: Kiboga Hospital records

However, the clinic staff reported that they have challenges following up clients from Ntwetwe due to the long distance, and they reported a higher default rate of patients referred from Ntwetwe HC IV.

Defaulting patients – patients who abscond and do not complete the full course of treatment – are a major problem in the management of TB because of the danger of leading to more cases of multi-drug resistant strains. The approach in dealing with defaulters is to pursue them, arrest them and force them back to the hospital to ensure they complete the treatment.

As far as TB-HIV co-infection is concerned, the respondents at Kiboga Hospital reported that the most affected are men in the 30-40 year age group. People who are co-infected are counseled on the importance of adhering to TB treatment as it is a major cause of death among people living with HIV.

The hospital identifies what they call "expert clients", who are HIV positive clients that have been on treatment for some time and are willing to support new clients. These are orientated and trained to help identify other HIV-positive people who may be in the communities without taking medication. These also give some help in health facilities on voluntary basis.

During the focused group discussions, one female participant shared the following experience:

> ***Tobacco farmer in Ntwetwe subcounty:***
>
> *"I have been involved in tobacco farming for six years now. In the third year, I and my husband cultivated two acres and we put in so much energy and all the money we had because at that time BAT was not giving loans. Then we got a problem; my husband got TB. He was hospitalized and he was on treatment for eight months. At home the work stalled and because of poor attention, tobacco went to waste. From that time I found that however much money you get from tobacco, you may still lose a lot more treating the problems it brings because the health workers said he inhaled a lot of tobacco working in the granary (drying shed). We got treatment for free but still a lot of money went to feeding and attending to him, and there was no work going on at home. We have just resumed tobacco growing this season."*

Exposure to tobacco is perceived to be a greater danger to people living with HIV. According to the health assistant, Ntwetwe subcounty, even when they do not directly smoke it, the smell that comes off the tobacco in the garden or drying shed, or even the passive smoking is equally dangerous.

> *"If the sick person is the family head, it is badly affected. I have come across such a family, the wife spent most of the time, taking care of her husband, the man gained from tobacco, but he could no longer work, the family turned against him, the children were in support of the woman against the man, they abandoned him ultimately and he died eventually… it was disastrous… now the lady has married someone else, now the children are struggling for the land against the remaining the daughter that took care of the deceased for the property… it happened not more than 2 months ago…" – Community Development Officer, Ntwetwe subcounty*

PROPOSALS FOR THE TOBACCO CONTROL BILL 2014

- A Tobacco Control Committee is proposed in Part II of the bill to implement and develop tobacco control policies and mobilize resources for tobacco control. This should not be a political structure, but an independent body consisting of people of high integrity and are experts.
- The Bill should consider addressing financial and monetary concerns of the farmers involved in the business. There are regions and localities where some Ugandans are dependent on tobacco farming for household income.
- Farmer's rights against exploitation by multinational tobacco companies and to protection against harmful pesticides, the tobacco odor during farming and harvest, while curing the leaves should be upheld in the proposed law.
- Part IV of the Bill is silent on the financial implications of people who farm the tobacco crop and fail to score the public health uses of tobacco, it may largely be dangerous, but the farm outputs and miniscule public health uses of tobacco cannot be underscored.

CONCLUSION

State-level tobacco control measures are important in reducing exposure to tobacco through active and passive smoking. There is evidence that higher taxes and clean air laws tend to have a huge impact on smoking rates. The prospective law should consider exposure to tobacco through farming activities, in view of the impact it has on HIV-positive people, and its association with TB, the biggest killer of HIV-positive people. The most successful tobacco control strategies appear to involve multiple policies implemented as part of a comprehensive strategy, and therefore, the proposed bill may prove to be an effective tool in the fight against tobacco in Uganda.

References

Bates MN, Khalakdina A, Pai M, et al. Risk of tuberculosis from exposure to tobacco smoke: a systematic review and meta-analysis. Arch Intern Med 2007;167:335–342.

DT Levy, F Chaloupka, J Gitchell, "The Effects of Tobacco Control Policies on Smoking Rates: A Tobacco Control Scorecard" (2004) 10:4 Journal of Public Health Management Practice 338.

Griffith D, The moral economy of tobacco. *American Anthropologist,* 2009; 11:4.

Lin HH, Ezzati M, Murray M. Tobacco smoke, indoor air pollution and tuberculosis: a systematic review and meta-analysis. PLoS Med 2007;4:e20

Ministry of Health (2013): Global Adult Tobacco Survey - Uganda.

Muwanga-Bayego H, Tobacco growing in Uganda: the environment and women pay the price. *Tobacco Control,* 1994; 3.

Ramin B, Kam D, Feleke B, et al. Smoking, HIV and non-fatal tuberculosis in an urban African population. Int J Tuberc Lung Dis 2008;12:695–697.

Slama K, Chiang CY, Enarson DA, et al. Tobacco and tuberculosis: a qualitative systematic review and meta-analysis. Int J Tuberc Lung Dis 2007;11:1049–1061.

World Health Organization. *TB and HIV*http://www.who.int/hiv/topics/tb/en/

van ZylSmit RN, Pai M, Yew WW, Leung CC, Zumla A, Bateman ED, Dheda K.Global lung health: the colliding epidemics of tuberculosis, tobacco smoking, HIV and COPD. (2010) 35:1 European Respiratory Journal 27.

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