



## COMMUNITY DIRECTED INITIATIVES IN DISEASE PREVENTION AND CONTROL

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The True Spirit of Alma Ata Declaration on Primary Health Care

by some parties, from the partnership. She appealed to such bodies, however, not to withdraw abruptly but gradually so that the district council can best plan how to integrate the onchocerciasis program into its routine.

**Byamungu on Sustainability and Integration**

In his opening remarks, Dr. Andrew Byamungu, of Uganda's onchocerciasis control department, under the Health Ministry, hailed Kanungu district for her high level of commitment, by word and deed, to the control of onchocerciasis. He called upon other Ugandan districts, where the disease is also to be found, to emulate Kanungu.

A paper, "Sustainability of CDTI in the

beyond five years after taking them on. Those that show progress towards sustainability will, however, not be abandoned completely: to them APOC may give additional backing in technical terms. This may include assistance with replacement of capital equipment, capacity building to strengthen sustainability, advocacy with the aim of committing African governments to the fight of the disease, external monitoring and evaluation, and operational research.

Participants were further briefed, by the presenter, on possible extra APOC support for the 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> years. Qualifying districts have to meet these requirements: they must have a 3-year, post-APOC sustainability plan; a district's national government must be able to release funds budgeted by it for CDTI activities; evidence that funds and other resources set aside for CDTI have been used for planned programs; as well as implementation of recommendations by external monitors for the 5<sup>th</sup> year, and, where applicable, for year three.

#### **District Highlights**

Besides Kanungu, other districts represented at the April 29 seminar were

for CDTI supervision across villages, which are too numerous.

Health workers are too few and, because they are heavily loaded with their routine duties, they make little or no time for CDTI work, which is partially or barely integrated in their regular schedules.

### Way Forward

At the end of the workshop, participants suggested possible solutions to CDTI problems and challenges:

Local governments should solicit funds from other sources to sustain CDTI in their districts.

National Onchocerciasis Task Force (NOTF) ought to consult with districts on how CDTI can be properly implemented.

In the interest of effective service, the procurement, storage and distribution of ivermectin should involve the various stakeholders at the relevant district levels.

NOTF should continue conducting advocacy meetings for district leaders and lobbying in order to make them more informed about integration and sustainability of CDTI.

Nebbi District will host the next meeting in 2004.

### Overview of Workshop

Workshop proceedings give mixed but by no means surprising signals of the status of onchocerciasis control in the given districts. Strides, minor or great, have been taken in some areas. Achievements, dazzling and promising or otherwise, are boasted. Problems and challenges, of varying magnitude, do, however, still stalk the anti-onchocerciasis course. All these, nonetheless, are basically no new indices. Previous monitoring and evaluations, by internal and/or external personnel, show a generally similar trend for the northern and western, as for other onchocerciasis endemic, Ugandan districts. Ivermectin records for Uganda, over the past decade and more, copies of which are deposited in the country's Ministry of Health, bear out this observation. The one inspiring thing, for each of the onchocerciasis-affected districts, stands out: Any treatment coverage achieved, any advocacy and assessments undertaken within and without workshops – these and other phenomena like them increase public alert-

ness to the affliction and the need to rein in the disease.

The Kanungu meeting, like many a comparable forum in older years, also partook in another trait of clearly important interest. It was yet one more avenue by which CDTI fostered the now more urgent call for integration of community-directed disease con-

trol into the public health care system.

### References

APOC, Feb. 2004. *Guidelines for Developing a CDTI Sustainability Plan of the 5<sup>th</sup> Year Projects*, Ouagadougou.



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## Community-Perceived Benefits of Ivermectin Treatment in some Onchocerciasis Endemic Communities of Uganda

Dr. Richard Ndyomugenyi

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### Introduction

Onchocerciasis is a parasitic disease of man caused by *onchocerca volvulus*. It is a classic end of the road disease, which affects rural, impoverished people with little access to health care and no political clout. In Uganda, the disease causes onchocercal skin disease characterized by severe skin itching and ugly skin lesions (Kip et al., 1992). Itching can be so severe that it disturbs sleep, concentration and work (WHO, 1995). Other complications of the disease

et al., 1989). Since 1987, a private pharmaceutical company based in the U.S.A., Merck & Inc., has provided ivermectin free of charge to all onchocerciasis endemic countries. The company has pledged to continue donating free ivermectin as long as is needed. Ivermectin is a microfilaricidal drug and by reducing microfilarial load in the infected individuals, ivermectin reduces transmission of the infection and prevents onchocercal blindness and skin



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that have been observed in high numbers in onchocerciasis endemic areas of Uganda are epilepsy and retarded growth (Ovuga et al., 1992; Fischer et al., 1993). The manifestations of the disease are caused by microfilariae and are directly related to the intensity of the infection in the community (Thylefors and Brinkmann, 1997; Remme

disease. Repeated ivermectin treatment is also believed to have an effect on the fecundity of the female adult *O. volvulus* worm (Schulz-Key et al., 1986). To eliminate onchocerciasis as a public health and socio-economic problem in endemic communities, ivermectin treatment must continue for at least 15 years,

with stable annual treatment coverage of at least 65% of the total population. Therefore long-term compliance is important to achieve elimination of the disease. Some studies have examined the impact of ivermectin treatment on community microfilariae load (Ndyomugenyi, 1998; Remme et al., 1989; Boatin et al., 1998) but few studies have examined community-perceived benefits of ivermectin, which is important for sustained high treatment coverage. This study was conducted to examine the perceived benefits of ivermectin treatment in rural onchocerciasis communities of Uganda, where ivermectin distribution was ongoing for the past 11 years, to provide information that could be used in designing appropriate health education messages that could enhance continued ivermectin treatment.

## Materials and Methods

### Study Area

The study was conducted in Kyenjojo district where ivermectin treatment had been the only intervention to control onchocerciasis since 1991 – an effort that was supplemented with vector elimination in 1995. Onchocerciasis in the area, before ivermectin treatment started, was 80% and the disease manifested itself as onchocercal skin disease characterized by severe itching, ugly skin lesions and epilepsy (Kipp et al., 1992). The inhabitants of the area are Batoro (who are the indigenous people) and Bakiga and Bafumbira who have immigrated from Kabale and Kisoro districts, respectively. The main economic activity is agriculture with emphasis on food crops such as sweet potatoes, maize, cassava, beans, groundnuts and bananas. The cash crops are mainly coffee and tea.

### Methods

A questionnaire was developed and pre-tested before it was used. It was administered to randomly selected adults to assess peoples' perceived benefits of ivermectin treatment. The questions included perceived severity of the disease, benefits of ivermectin treatment in terms of disease control, socio-economic factors and whether people were willing to continue taking the drug. Focus group discussions were also conducted for males and females separately using a focus group discussion guide.

## Data Analysis

Non-computerized analysis was used to analyze qualitative data. A code sheet was created following the focus group guide, and data were coded. Then a master sheet analysis was done, giving all the responses from the focus group discussions and in-depth interviews. Responses were interpreted by looking at the patterns in the responses and formulating ideas, which could account for those responses. Methods used included content analysis, ethnographic summaries and use of quotations. Analysis also gave consideration to the actual words used by the respondents, the context, internal consistency and the specific responses. Quantitative data were analyzed using version 6.0 of the Epi-info software package, a creation of the Centers for Disease Control and Prevention, Atlanta, GA, USA.

## Results

Perceived benefits of ivermectin treatment Overall, 151 adults were interviewed and of those 83 (55%) were females. The age in years ranged from 19-84 with a mean age of 39.9. The number of years during which the respondents had received ivermectin treatment ranged from 0-15 with a mean of 9 years. Nearly all, 149 (98.7%), perceived onchocerciasis to be a dangerous disease and the reasons for perceiving so are summarized in table 1. However, after several years of ivermectin treatment, 75.5 % of the respondents perceived that onchocerciasis was no longer a major health problem due to stoppage of skin itchiness (table 1). A woman aged 35 years, who had taken ivermectin for 11 years, had this to say:

I had severe persistent skin itchiness and I used stones to scratch myself and sometimes I would tear my clothes while scratching. I could not dig. It was terrible. I used to spend a lot of money going to hospital in Fort Portal to get medicine for my skin disease. Now I am cured, I can dig and get some money from my crops.

The disease, before control, did not only cause distressful skin itchiness, but also had socio-economic implications and a stigma to the affected individuals. A man aged 35 years, from Byeya village, who had received ivermectin for 11 years, had this to say:

Our skins were very bad. Wherever we would go, people would know that we

were coming from Byeya village because of our bad skins. People used to think that our skins were bad because we were eating wild animals, which were not supposed to be eaten by human beings. People had started refusing to emigrate to this village because whenever they would come and find people with 3 Twi“(Perceived T\*1” W k i n s

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1993), had socio-economic implications and a stigma to the affected individuals as previously observed in other studies (Amazigo, 1994; Vlassoff et al., 2000). Onchocercal dermatitis is known to interfere with people's concentration and ability to work (WHO, 1995) and when highly prevalent, local people often attribute the symptoms of the disease to witchcraft and move, often to less fertile areas, so reducing productivity further, causing shortage of food and economic collapse (Ndyomugenyi, 1998). Ivermectin treatment relieves the affected people from onchocercal dermatitis and reverses acute dermatitis to normal skin. Community compliance and the effects of ivermectin on skin disease have been described. Most respondents perceived that there was no more skin itchiness and people were strong enough to cultivate land more effectively and grow crops, which they could sell and get money. Although onchocerciasis is known not to cause blindness in this region (Fischer et al., 1993), a big proportion of the people perceived that ivermectin had improved their sight. Although people perceived that ivermectin treatment had stopped itchiness and improved their ability to work, other extra health benefits of the drug, such as its anti-scabetic activity (Nnoruka and Agu, 2001) and its deworming effect, could have also played a big role. Intestinal helminths flourish where poverty, poor nutrition, shortage of drinking water and minimal health care prevail (WHO, 1994), which are the typical conditions where onchocerciasis is also endemic. Intestinal helminths play an important role in the cause of iron deficiency anaemia due to chronic blood loss and reduced nutrient intake (Santiso, 1997). Effectiveness of ivermectin, against ascaris lumbricoides, has been reported to be 100% (Njoo et al., 1993) and 11-100% effective against *T. trichiura* (Njoo et al., 1993; Mart et al., 1996) and 0-20% against hookworm (Richard et al., 1995). Therefore, the effort of the African Program for Onchocerciasis Control, to eliminate onchocerciasis as a public health and socio-economic problem through annual mass ivermectin distribution, could in the long term improve the quality of life, by controlling intestinal parasites and their associated negative con-

sequences on growth and development, of the rural poor populations with inadequate health services.

### Conclusion

Community members perceived that after 10 years of ivermectin treatment, troublesome skin itchiness had stopped and that this stoppage had increased their ability to grow more crops, which they could sell and get money. Despite the members' perceptions that onchocercal skin itchiness, and onchocerciasis in general, was no longer a public health problem, people were still willing to continue taking the drug until they are assured that they are completely cured. Health education, on the need for continued ivermectin treatment, should continue for sustained high treatment coverage.


### References

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## Treatment Updates (Apr-Jun 2004)

### News Flash – April- June 2004

Working visits, major details of which we now give you, engaged, as always, the Uganda arm of The Carter Center Global 2000 during the just ended quarter.

**April 29-30, 2004:** Peace Habomugisha was among the many invitees, in Kanungu District, for a follow-up workshop on post-APOC CDTI sustainability. A paper, relevant to the subject, was presented by her.

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