

**Population, Health and Environment
Bwindi Impenetrable National Park, Uganda
East African PHE Conference,
The Woodrow Wilson Centre
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Conservation Through Public Health

Acknowledgements

- **USAID**
- **John Snow International**
- Kanungu District Local Government/Ministry of Health
- Bwindi Community Health Centre
- Family Health International

Presentation Outline

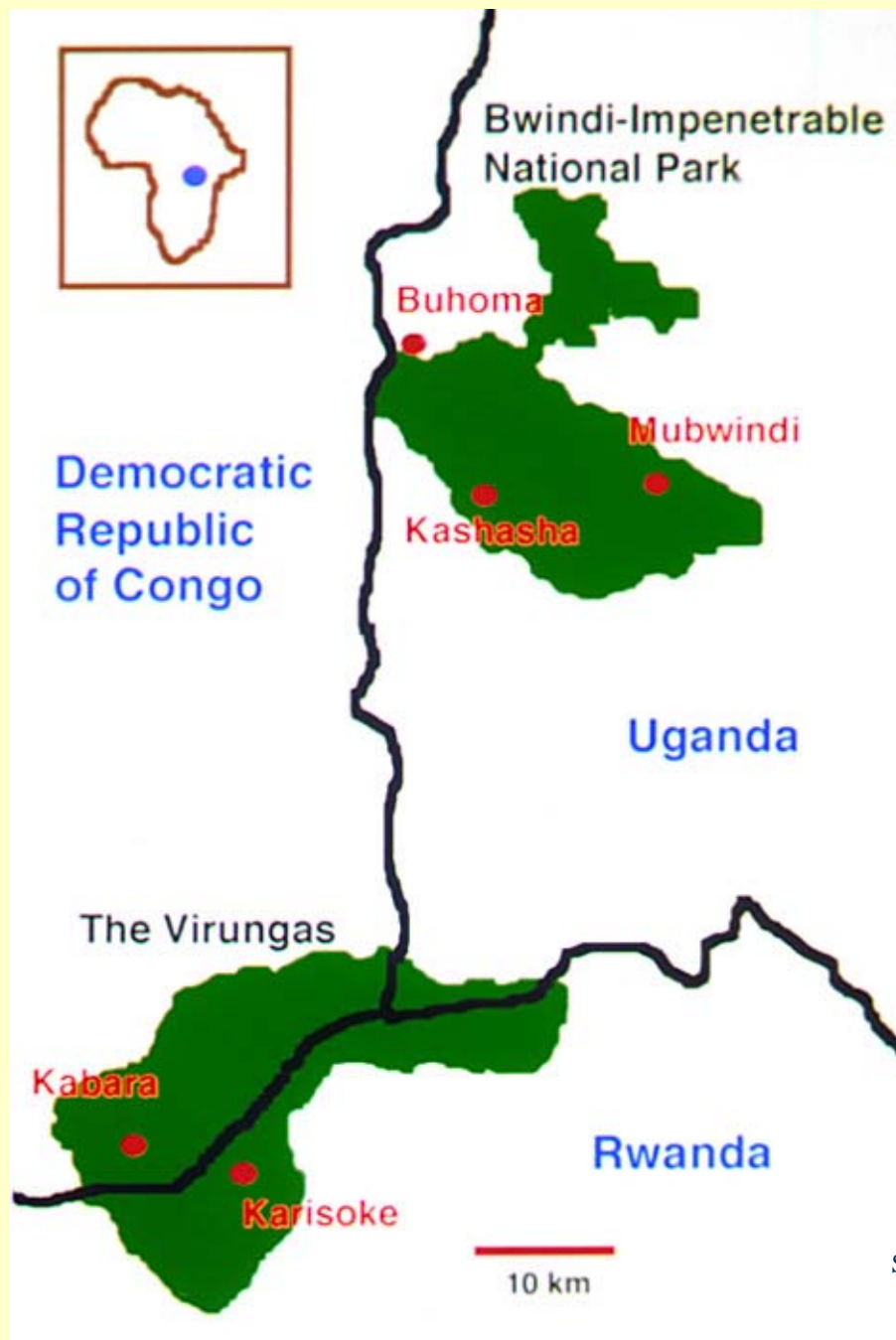
- Background of Conservation Through Public Health – the link between Environment and Health
- Introducing Population to the Health and Environment focus
- Results of PHE activities one year after implementation
- Lessons learned
- Way Forward

Why start Conservation Through Public Health

- Effective protected area management is undermined by zoonotic diseases and poverty
- Poorest people in Africa live around protected areas
- Marginalized target groups in these remote areas
- Problem gorillas and other wildlife
- Very limited access to modern health care and information on human and animal diseases.

Remote huts of local community adjacent to Bwindi Impenetrable Forest





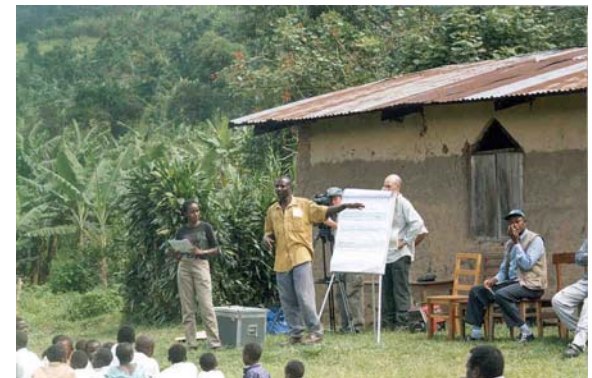
Source: Dr. Michelle Goldsmith



Family residence at the border of Bwindi Impenetrable National Park, a UNESCO World Heritage Site



Community Participatory Rural Appraisal (PRA) Workshops in 2000 with Bwindi Community on risks of human and gorilla disease transmission



OKWERINDA



KUTATURIZA

ENDWARA

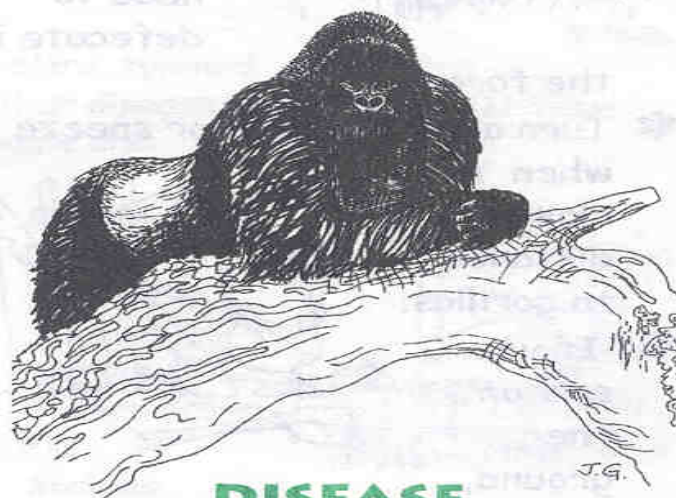
ENGAGI NARI

ZO KU TUTURIZA

PREVENTION

AND

CONTROL OF



DISEASE

TRANSMISSION

BETWEEN HUMANS

AND GORILLAS

Health Education - 2000

- Tuberculosis
- Scabies
- Measles
- Polio
- Ebola
- Intestinal parasites
- Ringworm
- Trachoma
- Herpes
- Lice
- Typhoid
- Flu

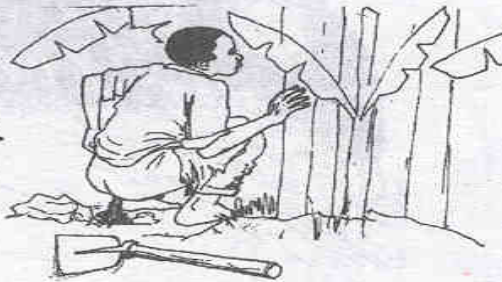
Non medical



- * Maintain the 5 metre distance.
- * Dig a hole of 30 centimetres deep if you need to defecate in

the forest.

- * Turn away to cough or sneeze when in close distance to gorillas.



- * If you spit on the ground, cover it up with mud.



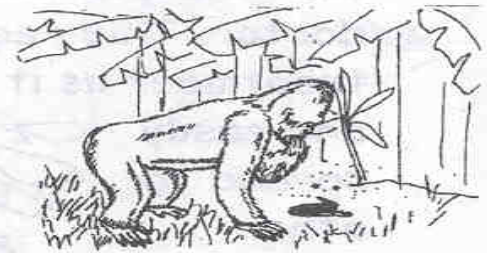
People can get diseases from gorillas and also gorillas can easily get diseases from people.

If you defecate on the ground, Gorillas can taste it, get sick and spread it to all the other Gorillas in the group. eg.

Cholera, typhoid, worms etc.

Other diseases gorillas can get from people are:

- ▶ Measles
- ▶ Ringworm
- ▶ Trachoma
- ▶ Typhoid
- ▶ Worms
- ▶ Tuberculosis
- ▶ Flu
- ▶ Scabies
- ▶ Polio
- ▶ Lice
- ▶ Herpes virus



Personal Hygiene



- * Dispose of rubbish properly, do not leave banana peels in the forest.
- * Have enough pit latrines.
- * Cover pit latrines.
- * Dig pit latrines deep enough.

- * Do not leave cigarette butts lying on the ground, you should bury or take them with you.



- * Clean houses regularly.
- * Wash clothes regularly and thoroughly.



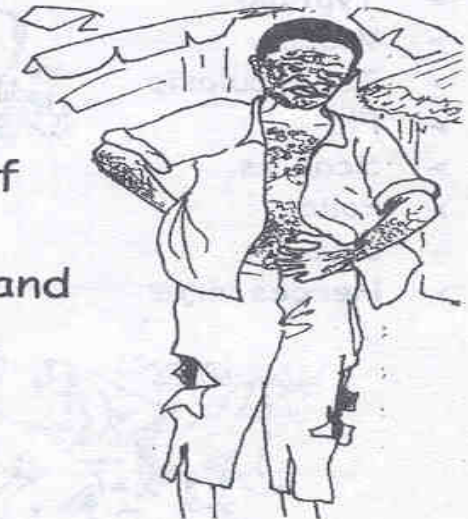
- * Do not leave dirty clothing in your plantation.

Medical



- * If you are not feeling well, seek medical treatment.

- * If you have a disease that is not making you feel very sick, but is causing you discomfort like scratching more than usual for example Scabies, go to the doctor. This requires treatment as it can get worse and easily spread to other members of the household and to gorillas.



Health Education Local Community Recommendations

Medical (MOH)

- Bring health and diagnostic services closer

Non-medical (UWA)

- Strengthen human/gorilla conflict team, compensation for crop damage

Personal Hygiene (Local community)

- Dig proper pit latrines, cover rubbish heaps, more health education

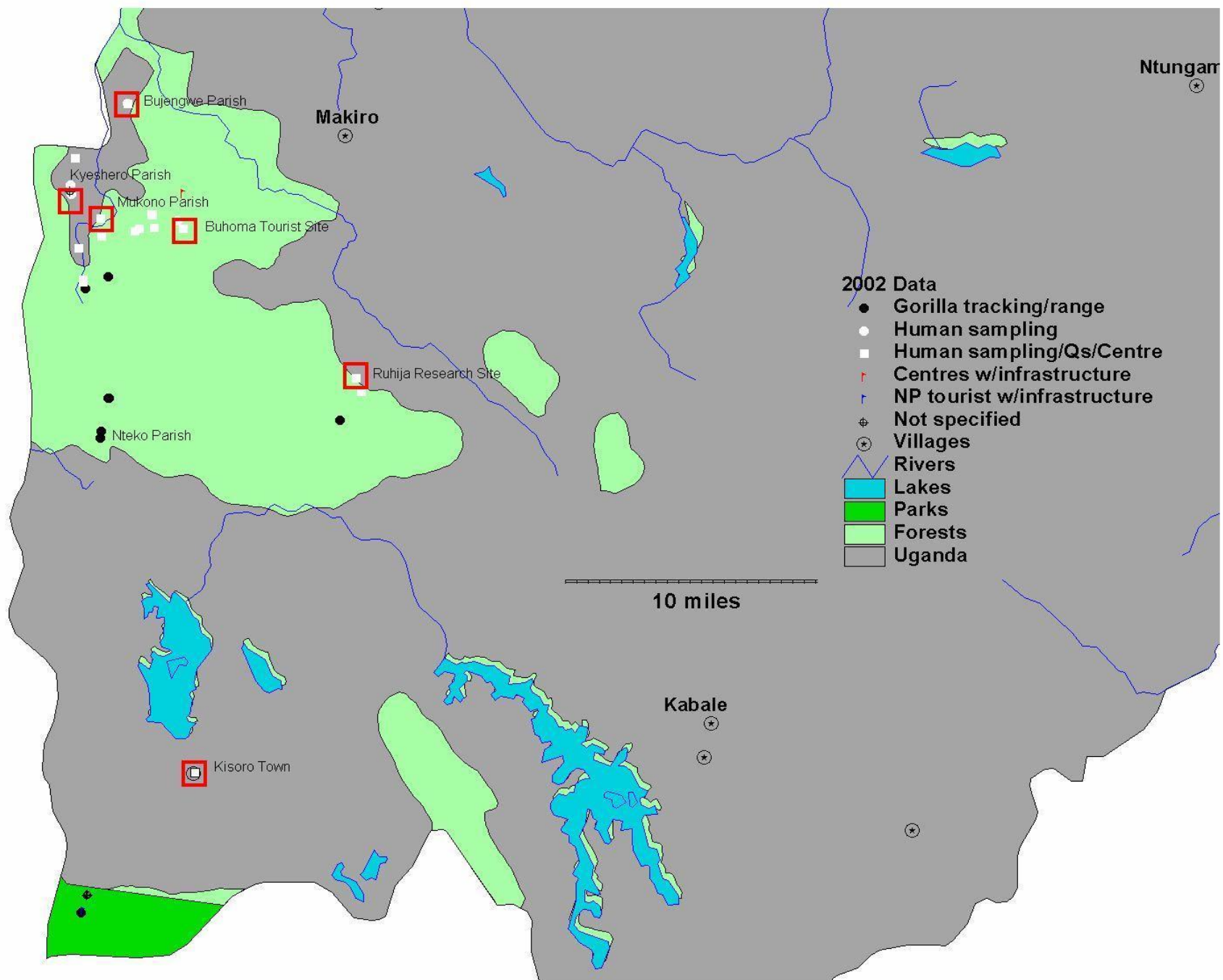
Impact of Gorilla Ecotourism





TB research – 2001/2002

- TB surveys in Bwindi Impenetrable and Queen Elizabeth National Parks
- AWF Charlotte Fellowship Conservation Award
- North Carolina State University and Zoo
- 25% chronic coughers had positive acid fast sputum tests
- 5% of BINP park staff positive acid fast tests
- Two people died during research because of not completing treatment (defaulters)



Conservation Through Public Health

- Grassroots not-for-profit organization based in Uganda and USA
- Founded by Ugandans in 2002
- Promoting conservation with public health
- Received 501(C) 3 non-profit status in USA in 2003
- Received NGO status in Uganda in 2003
- Patron – Queen of Buganda Kingdom
- 18 staff, 8 Board of Directors, 14 Int. Advisory Board Members
- Volunteers (Uganda, UK, USA, Bayer Pharmaceuticals, American Jewish World Service, International Cyber Volunteers, Cornell University, Colgate University)

Conservation Through Public Health

- **Integrates wildlife conservation and human public health**, which is interdependent in and around protected areas in Africa
- More cost **effectively prevents and controls** disease transmission **between people, wildlife and livestock**
- **Disease affects** conservation, public health, ecotourism, livelihoods, agriculture, culture

Conservation Through Public Health

- **Mission:** To promote conservation and public health by improving primary health care to people and animals in and around protected areas in Africa

Conservation Through Public Health

- **Vision:** To prevent and control disease transmission where people, wildlife and their animals meet while cultivating a winning attitude to conservation and public health in local communities

Three Integrated Programs

- **Human Public Health**
- Wildlife Health Monitoring
- Information, Education and Communication

Human Public Health Strategy

- Grassroots Community Education Campaigns on good hygiene, zoonoses, and links to gorilla health, ecotourism and livelihoods
- Strengthening Community Based Health Care in villages around Bwindi Impenetrable National Park, a UNESCO World Heritage Site
- **Building on existing structures to promote community focussed family planning in villages around Bwindi**

Community Education Campaigns

- Community drama workshops in Mukono and Kyeshero Parishes with focus on TB, CBDOTS and links to gorilla health, ecotourism and sustainable livelihoods by local drama groups, **Rutendere Health Promoters (Women's group)** and **Bwindi Conservation Actors**
- Informative brochures, and DVDs
- Development Cooperation Ireland (2005)
- USAID/Prime West/African Wildlife Foundation (2006 – 2008)
- Very cost effective educational tool for the local communities as very entertaining

Community outreach through local drama groups reached over 7000 people



Community outreach through Health Message Signposts, 5 erected so far



Community Based Direct Observation of TB Treatments Short Course Therapy (CBDOTS)

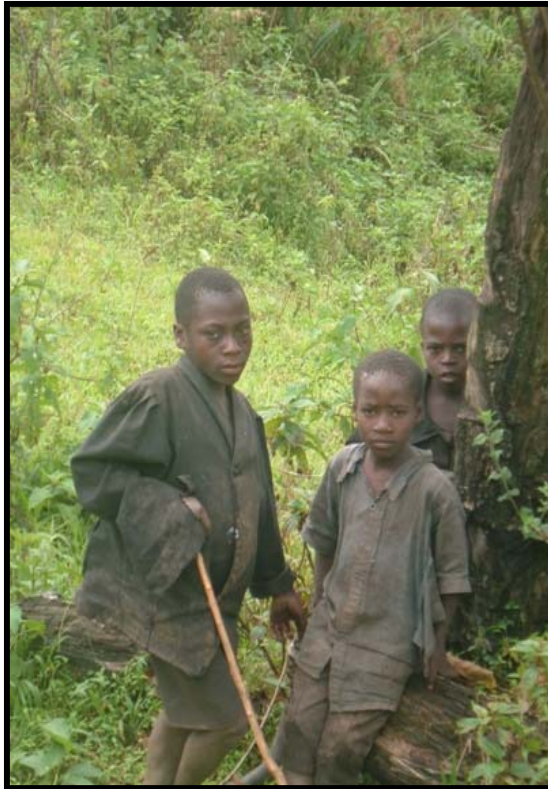
- CTPH has MOU with Kanungu District Local Government/Ministry of Health
- Meetings with local leaders & traditional healers
- Identifying TB suspect patients and getting their samples to Kayonza Govt Health Centre and where possible patients to Bwindi Community Health Centre, NGO Missionary Hospital
- Following up on these patients every two weeks
- Funded by DCI (2005)
- Funded by USAID/Prime West/AWF (2006-2008)

Meetings and training workshops with Traditional Healers

- Getting traditional healers to admit they cannot treat TB and HIV
- To refer TB suspect patients
- To become community volunteers
- To appreciate linkages between health and conservation
- THETA – Traditional and Modern Practitioners together against HIV



**52 people enrolled in CBDOTS programme,
33 completed 8 months treatment, 9 on
treatment, 5 defaulted and 5 died**



Challenges of TB CBDOTS Program

- Convincing health partners that community based health care can compliment their efforts by linking communities to their services through community health volunteers.
- Limited resources to continue the programs in one parish (Kyeshero) that does not border the Bwindi National Park once Development Cooperation Ireland funding ended in 2005
- Sometimes limited resources at supporting health centres
- Alcoholism prevents people adhering to daily TB medication. However the CBDOTS programme has achieved 79% treatment success.



FIELD CLINIC FOR MOUNTAIN GORILLAS
AND OTHER ANIMALS

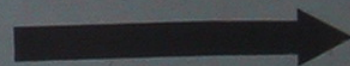
TELECENTRE

MUKONO COU
(ANGLICAN) P/S

POBOX 141-KANUNGU

INTERNET HERE!

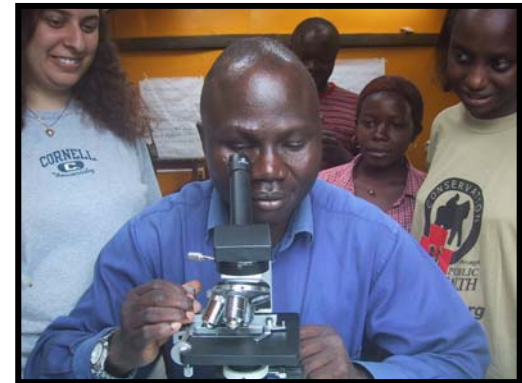
200 METRES



Links with the other two CTPH strategic programs

- **Wildlife Health Monitoring** – data from gorilla and livestock fecal sample analysis at ***Field Clinic for Mountain Gorillas and other Animals*** is shared with medical and wildlife partners as an early warning system for disease outbreaks
- Wildlife Conservation Society Field Vet Program (2005)
- US Fish and Wildlife Service (2005 – 2006)
- MacArthur Foundation (2006-2008)

Wildlife Health Monitoring Activities



Links with the other two CTPH strategic programs

- **Information, Education and Communication**
 - CTPH Telecentre enables community empowerment through computer courses and access to email and wireless internet, public health research and development of educational materials on conservation and public health linkages for outreach

CTPH Telecentre Activities



CTPH Telecentre Activities since June 2005

- Over 150 community members have graduated in Computer Studies (40% women)
- Over 50 Bwindi Orphans School children have watched educational DSTV channels (Discovery, National Geographic etc.)
- Local community members have accessed internet over 3000 times, and over 400 ecotourists have accessed email and wireless internet
- **Telecentre Movement Sustainability – users pay a fee for service**

CTPH Telecentre Launch October 2005 by CTPH Patron, HRH Queen Sylvia of Buganda Kingdom



Population, Health and Environment Initiative - Uganda

- **USAID Initiative**
- Promoting Family Planning in and around Bwindi Impenetrable National Park
- Reduces population pressures on natural resources and biodiversity
- **Improves community health and livelihoods through smaller family sizes, which in turn reduces the health threats to gorilla conservation**
- Uganda has 3rd largest population growth rate in the world
- Bwindi is surrounded by one of the highest population densities in Africa of 200 to 300 square kilometres

Hard edge at Bwindi's tourist site



Demographic, Health and Environment Indicators

Country	Total Fertility rate	% of rural Popn using improved water resources	% of rural Popn using adequate sanitation	Change in forest areas 1990-2000 (1000 hectares)	No. of threatened and endangered species
Uganda	6.9	46	72	-913	69
Tanzania	5.6	42	86	-913	143
DRC	7.0	26	6	-5324	116
USA	2.1	100	100	3880	829

Needs Assessment for PHE project in CTPH - 2006

- Indicated a great need for family planning:
 - by Mbarara University School of Science and Technology (MUST) using community workshops and focus groups
 - part of a general independent baseline survey on community knowledge, attitudes, and behaviour toward issues that CTPH is addressing using random verbal questionnaires and focus groups
 - Baseline clinic data assessment by CTPH
- Average live births is **10 “half our children go to school while the other half are for chasing wildlife away from the garden”**
- Many myths and misconceptions - about side effects of family planning
- Men and women do not discuss family planning

Starting the PHE/Uganda program in Bwindi

- **Community Focused Family Planning**
- **Adapting aspects of the CARE model** that worked in Bwindi parishes using Community Reproductive Health Workers (CRHWS)
- **Targeting Couples** – men don't recognise importance of family planning or the need to be part of it
- Hired a CTPH PHE Program Coordinator (Nurse/Midwife) for technical support and expertise to CTPH Nurse Aide
- Community Reproductive Health Workers
- Couple Peer Educators

Objectives of the PHE program

- **Reduced family size and human/wildlife interactions as a means of improving human and wildlife health and welfare in communities around mountain gorilla protected areas.**

Short Term Outcomes

- Increased capacity to implement integrated FP, health and environment interventions in target communities
- Increased access to information and education on FP, health and the environment and linkages in target communities
- Increased acceptance of FP among target community members
- Reduction in risk of human disease to mountain gorillas

PHE Implementation

- Community focussed family planning program around Bwindi in Mukono and Bujengwe first parishes bordering the park and of high human/wildlife conflict
- 4 Community Reproductive Health Workers (CRHWS), 2 per parish with 5000 people/parish
- 24 Couple Peer Educators (CPES), 1 from each village
- Inform people about the benefits and methods of modern family planning and link it to improved health and sustainable environments
- Village health talks, targeted home visits
- Refer potential clients to health centres

Monthly meetings with CRHWS

Quarterly meeting with CPES



First year of PHE Implementation

- Great response, in first 12 months
- 490% Increase in new FP users (30 expected compared to 147 achieved)
- 1200% increase in referral of TB suspects (40 from the community compared to 480 by PHE volunteers)
- New targeted health visits to homes bordering the park with people who see gorillas, potential to improve ICD interventions
- Women opting for new methods such as implants, 12 reported at the Bwindi Community Health Centre

April to November 2007

CPES (+ CRHWS)

- No of homes visited: 1325
- No of homes visited that saw gorillas: 540
- No of clients who received IEC: 1539
- No of homes followed up: 1521
- No of group health talks given: $152 + 11 = 163$
- No of clients who attended health talks: $2933 + 66 = 2999$
- No of TB suspects reported: $238 + 242 = 480$
- No of IEC materials distributed: $3700 + 1294 = 4994$
- No of condoms distributed: $4276 + 19718 = 23994$
- No of clients who attended outreach clinics: 2756

December 2007 to March 2008

CPES

- Number of new homes visited: 332
- Number of new homes that saw gorillas: 123
- Number of new homes followed up: 984

April 2007 to March 2008

CRHWS

- Total no. of Family Planning clients: 588
- Number of new confirmed FP clients: 147
- Non accepting clients given counselling only: 128
- No. of potential clients: 206
- No. of new users on natural family planning: 10
- **No of clients seen gorillas in their homes: 29 (only from Dec 07 to March 2008)**
- **Pills: 255, condoms: 19718**
- **Depo: most popular method, records at health centres**

Integrating Family Planning with Scabies, HIV, TB and the environment

- Met with 54 local leaders in Mukono and Bujengwe Parishes
- 48 community health volunteers being trained to give health talks on scabies and HIV during TB CBDOTS and community based family planning home visits
- **Target: at least 25% of homes visited should border the park – i.e. people who see gorillas often, so far 41% (540/1325), and with new homes 0.37 (123/332)**
- **Scabies focus is on good hygiene practices**
- HIV focus is to educate people on the importance of HIV and encourage them to go for testing at the health centre, especially TB suspects
- **CRHWS and CPES have referred 480 people for TB testing**

Drama shows on PHE Concept

- Two groups: Bwindi Conservation Actors and Rutendere Health Promoters
- Eight venues reaching 22 villages
- 1757 (375 men, 683 women and 699 men)
- Were asked about basic knowledge on Scabies, HIV, and Family Planning before the show
- Were asked what they had learnt about FP after the show



Radio Programs

- Pilot one hour weekly radio program for one month
- Testimonies from couples who come together with their CPE/CRHW
- DPHN, UWA Community Conservation Ranger and CTPH
- Got good listenership, testimonies were most popular
- Not able to form radio listener groups – needed expertise (UPHOLD, Straight Talk Foundation). Very important for evaluation of the social impact

Educational Aids – Flip charts

- Flip charts to aid home visits education – developed with CPEs and CRHWS
- Based on those used for HIV/AIDS, malaria etc. education
- Start off with negative story
- Followed by positive story
- Discussion around the story
- Developed with assistance from Mango Tree Enterprises using low cost locally available sisal material
- Demonstration

Free Computer Training for CRHWS and CPES

- Was brought up during the monthly meetings
- Started in January 2008, the classes are normally fee for service, but interested CRHWS and CPES get free classes
- Based around their PHE data collection during home visits
- Community Websites

<http://bwindicommunity.ctph.org>



Challenges

- Clients arriving at health centres and not being attended to because of long lines and overworked health workers – CTPH PHE Coordinator now works at both health centres one day a week to counsel and give contraceptives to people referred by the CRHWS
- Tracking referrals by CPES, as only CRHWS give referral forms
- Took a lot of time and effort to get community volunteers to accurately record data – intensive training, limits potential for research...
- Community volunteers motivation - complaining that the work is hard and sometimes asking for salaries

Lessons learned

- Targeted home visits through community volunteer network ensures that communities bordering the park get PHE benefits
- Focusing on couples
- Integration strengthened both the Community focused Family Planning and TB programs (sharing of resources, 480 TB suspect referrals by CRHWS and CPES)

Way Forward

- To start Community Based Depopovera 3 month interval injection – possibility of teaming up with Family Health International as a pilot study – MOH wants to approve this as a national strategy after 2 successful pilots in rural Uganda, FHI etc. \$13,000 in kind support...
- Community health volunteers forming a PHE CBO to sustain their volunteer efforts, and start income generating projects
- Train CRHWS and CPES to use GPS for more accurate spatial recording of home visits and linking with wildlife health data
- Build community radio component – feasibility study by Straight Talk Foundation indicated a great need

Uganda PHE Working Group

- **Developed from East Africa PHE Conference in Ethiopia in November 2007**
- CTPH, Uganda National Farmers Association, Inter-University Council of EA, Tree Talk/Straight Talk Foundation , Uganda Program for Human and Holistic Development (UPHOLD), Kibale Fish and Monkey Project/Compton Fellow
- **Working with PRB to do Uganda PHE Assessment**
- Creating awareness of PHE in the Uganda media
- Advocacy for importance of PHE among politicians - Transboundary PHE programs, PHE for pastoralists
- **Ecoagriculture training workshop** in April 2007 – CTPH Programme Coordinator sponsored by USAID/Prime West

International Recognition

- **Ashoka Fellowship for CTPH Founder and CEO** – support for leading social entrepreneurs based on my vision of linking Uganda's wildlife management and rural public health programs to create common resources that benefit both people and animals
- **Seed Magazine** - Revolutionary Minds article - “Saving Africa’s wildlife by improving the health of humans”, among 8 Revolutionary minds who through their approaches put science to effect global change.
- **San Diego Zoo 2008 Conservation Medal Award** – Conservation in Action – May 2008

Strategy for Sustainability

- **Multidisciplinary teams** of grassroots practitioners in human health, wildlife and livestock health sectors get **together to find mutually beneficial solutions**
- **Empower government workers and other grass roots practitioners** through **capacity building**
- **Empower target communities** through **model change agents** who form institutional structures to **spearhead the approach in their community**

Acknowledgements

- Uganda Wildlife Authority
- Ministry of Health
- Ministry of Agriculture, Animal Industry and Fisheries
- Kanungu Local Govt
- Kasese Local Govt
- Uganda Communications Commission
- USAID
- MacArthur Foundation
- Uganda Telecom
- US Fish and Wildlife Service
- Wildlife Conservation Society
- Mountain Gorilla Vet Project
- American Jewish World Service
- Makerere University
- Mbarara University of Science Technology
- Colgate University
- Cornell University
- Ashoka Foundation
- AHEAD
- John Snow International
- Development Cooperation Ireland
- International Gorilla Conservation Programme
- African Wildlife Foundation
- IUCN
- Mgahinga and Bwindi Conservation Trust
- The Gorilla Organization
- Gorilla Journal/BRD
- Gorilla Haven
- Bwindi Community Health Centre
- Albertine Youth Resource Centre
- CTPH staff and family
- Multichoice Uganda
- Coca Cola
- United Nations Industrial Development Organization
- International Cyber Volunteers
- Wyse Technology, Picopoint

CTPH Staff



Thank You

For more information on Conservation Through Public Health...
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