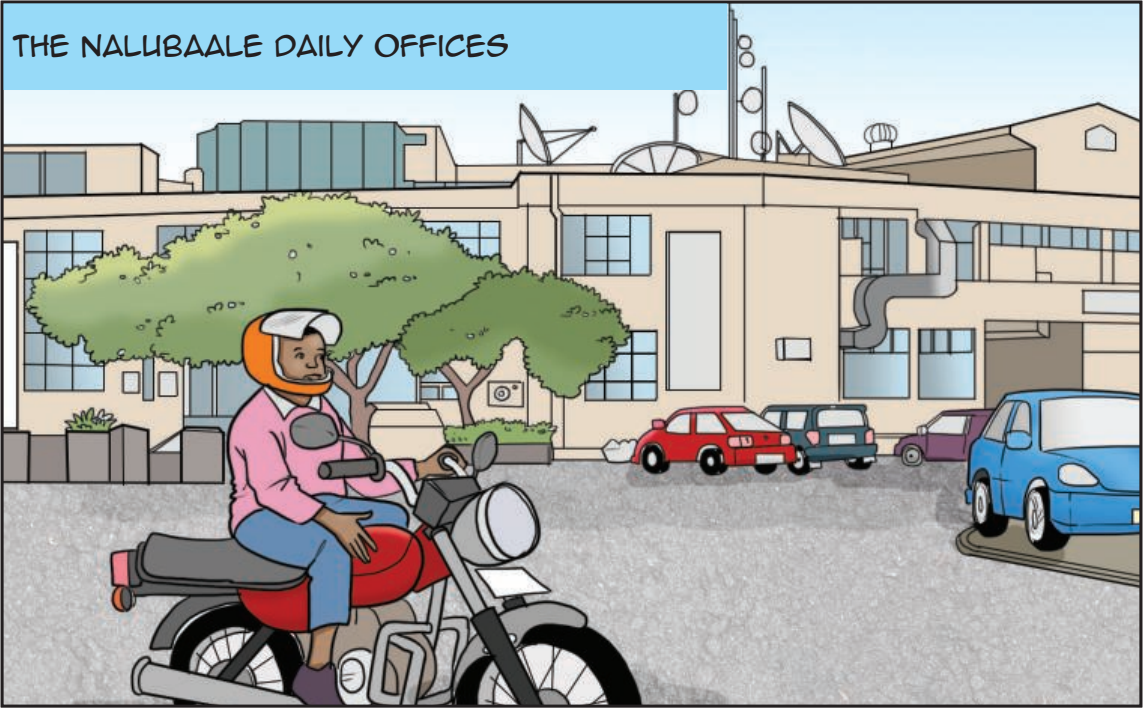


Weak Links:

The breakdown in Mass Drug Administration for Bilharzia



THE NALUBAALE DAILY OFFICES



WE MAY HAVE A STORY HERE. THIS IS A RECENT REPORT SHOWING THAT BILHARZIA IS AFFECTING ALMOST 30% OF OUR POPULATION. 30%! IMAGINE-

Schistosomiasis Monitoring in Uganda

Round 2
October - December 2017

PERFORMANCE MONITORING AND ACCOUNTABILITY 2018

Schistosomiasis Prevalence by Socio-economic and Demographic Characteristics of the Population in Uganda

Schistosomiasis prevalence among all educational levels and health quarters in Uganda
Overall Schistosomiasis prevalence in Uganda is 29.0%

Characteristic	Prevalence (%)
Urban	28.8%
Rural	29.2%
Highly Urban	28.5%
Highly Rural	29.5%
Urban	28.8%
Rural	29.2%
Highly Urban	28.5%
Highly Rural	29.5%

Open Defecation and Urination Index for Schistosomiasis Prevalence

Category	Prevalence (%)
Urban	29.0%
Rural	29.0%
Highly Urban	29.0%
Highly Rural	29.0%

Distribution of Schistosomiasis in Uganda

Prevalence Thresholds from Uganda Ministry of Health

- 20% - 25%
- 25% - 30%
- 30% - 35%
- 35% - 40%
- 40% - 45%
- 45% - 50%
- 50% - 55%
- 55% - 60%
- 60% - 65%
- 65% - 70%
- 70% - 75%
- 75% - 80%
- 80% - 85%
- 85% - 90%
- 90% - 95%
- 95% - 100%

SHA! I THOUGHT THIS WAS A TOURIST PROBLEM, PEOPLE SWIMMING WHERE THEY SHOULDN'T.

THIS DOESN'T MAKE SENSE. YEARS AGO I COVERED A STORY WHEN THE INFECTION RATE WAS AROUND 15% AND THERE WAS A NATIONAL CONTROL PROGRAMME ROLLED OUT TO ERADICATE THE DISEASE. SOMETHING, SOMEWHERE WENT VERY WRONG.



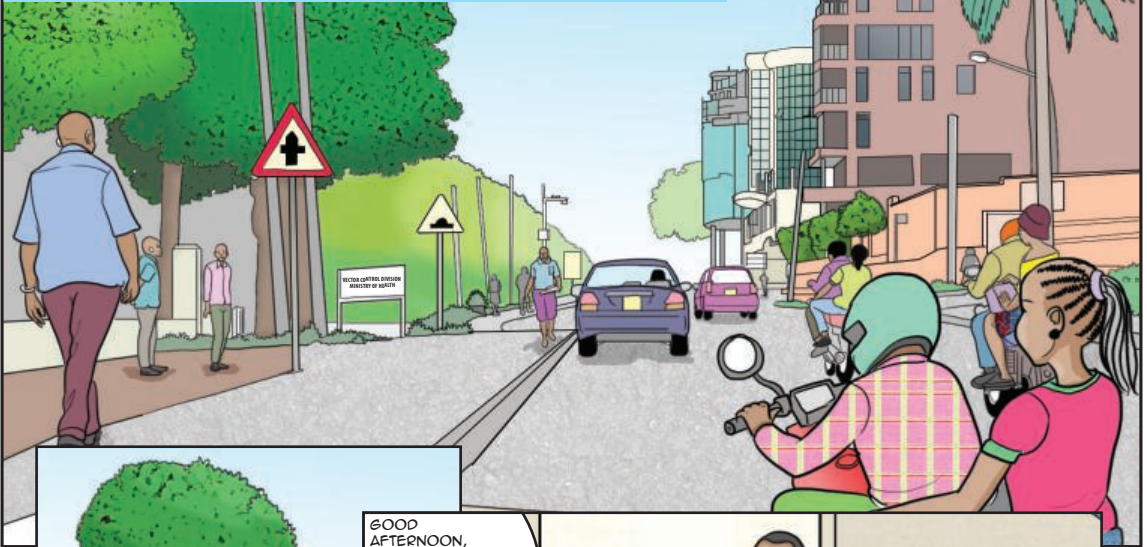
MY THOUGHTS EXACTLY. I DUG UP YOUR REPORT FROM 2003...

THERE WERE SEVERAL HIGH-PROFILE EVENTS AROUND THE ROLL OUT FOR MASS DRUG ADMINISTRATION IN DISTRICTS ACROSS UGANDA, ESPECIALLY THOSE WITH HIGH RATES OF INFECTION. SO WHY DIDN'T THE PROGRAMME WORK?

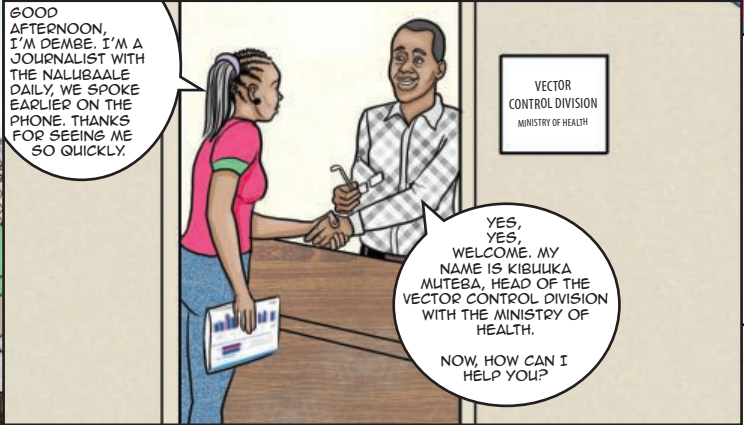




VECTOR CONTROL DIVISION, BUGANDA ROAD



GOOD AFTERNOON, I'M DEMBE. I'M A JOURNALIST WITH THE NALUBAALLE DAILY. WE SPOKE EARLIER ON THE PHONE. THANKS FOR SEEING ME SO QUICKLY.

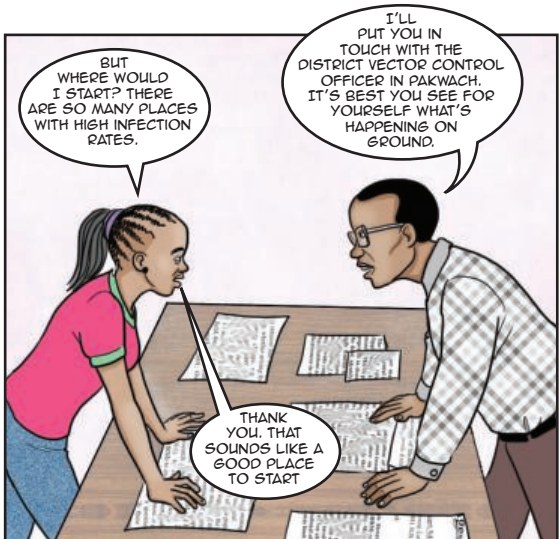
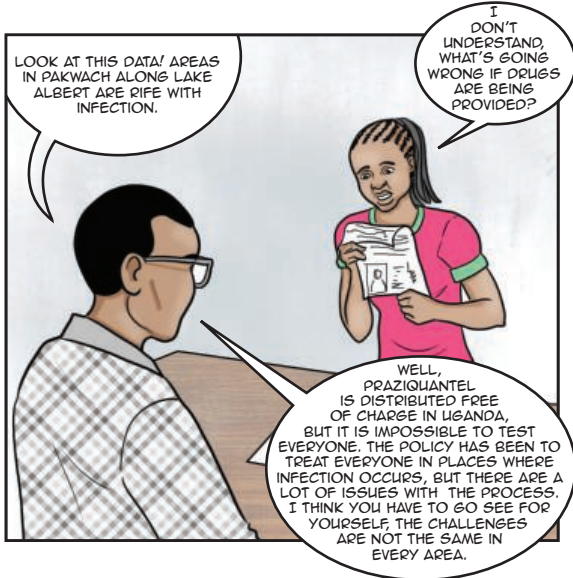
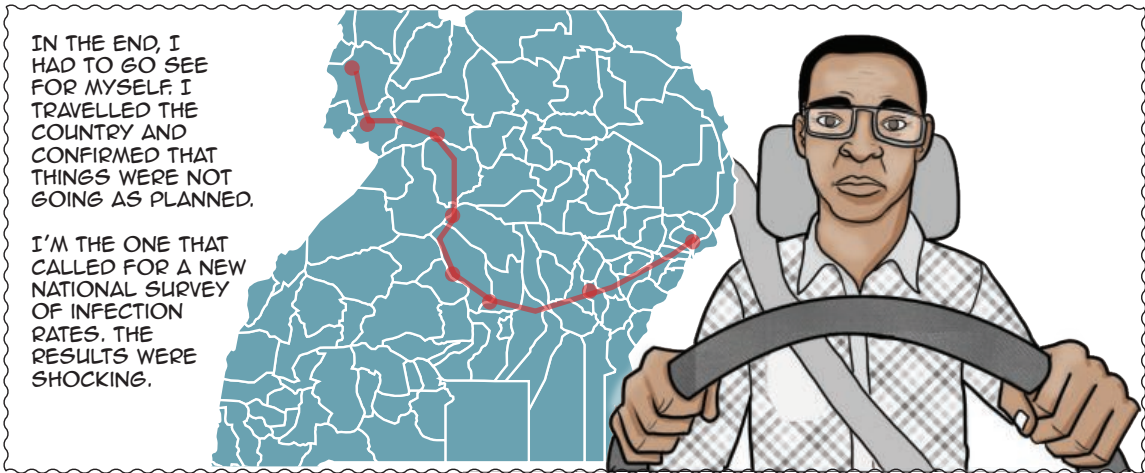
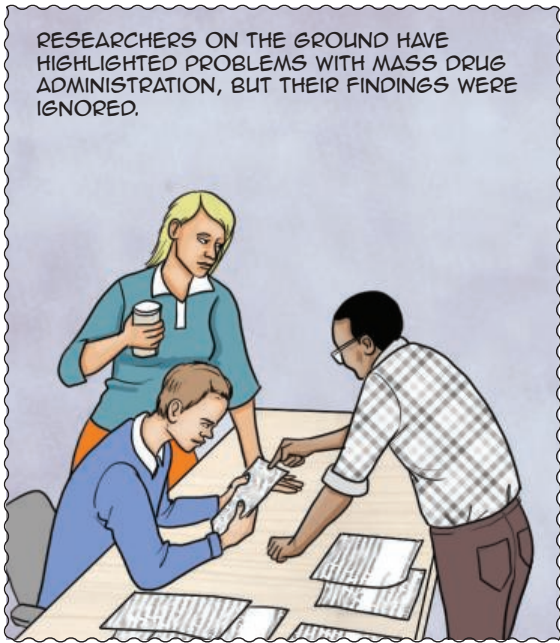


YES, YES, WELCOME. MY NAME IS KIBULIKA MLITEBA, HEAD OF THE VECTOR CONTROL DIVISION WITH THE MINISTRY OF HEALTH. NOW, HOW CAN I HELP YOU?

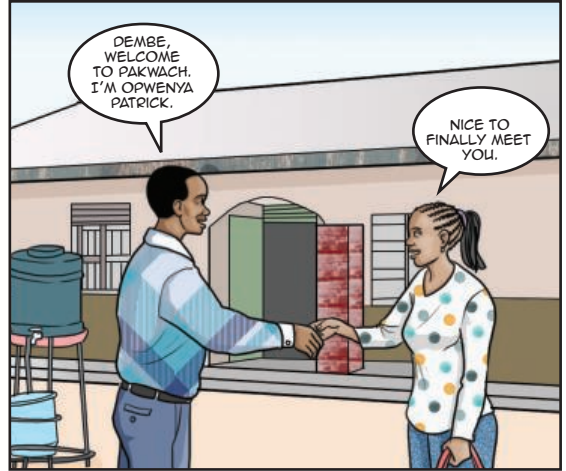
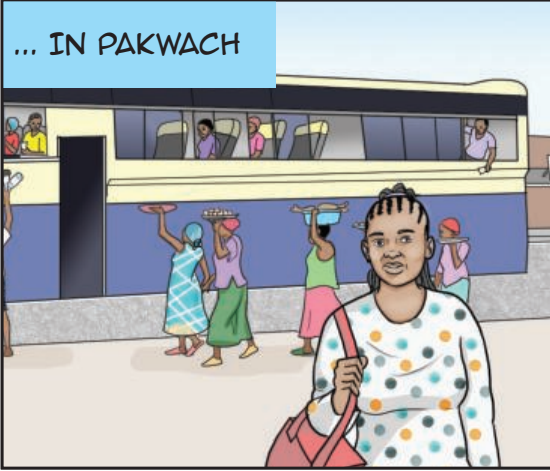


I'M WRITING A STORY ABOUT THE RISE OF BILHARZIA INFECTION RATES, BASED ON THIS REPORT. I UNDERSTAND YOU WERE HEAD OF THIS DIVISION WHEN THE NATIONAL PROGRAMME FOR BILHARZIA CONTROL STARTED. HOW IS IT THAT INFECTION RATES ARE NOW HIGHER? IT'S VERY TROUBLING.

IT IS. YOU THINK MORE PEOPLE WOULD BE CONCERNED.

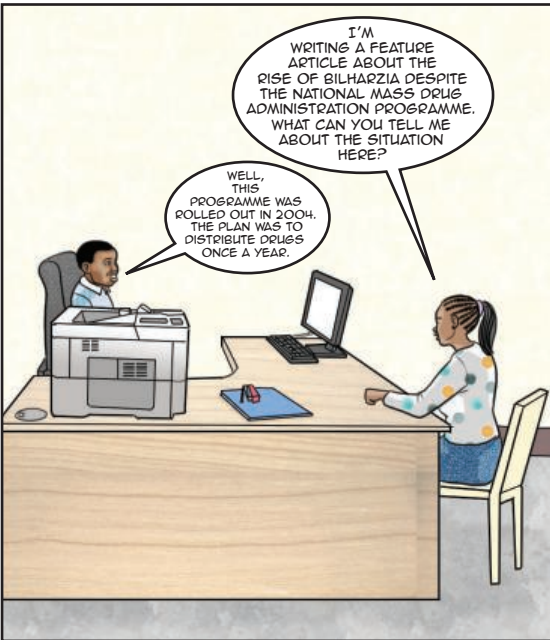


... IN PAKWACH



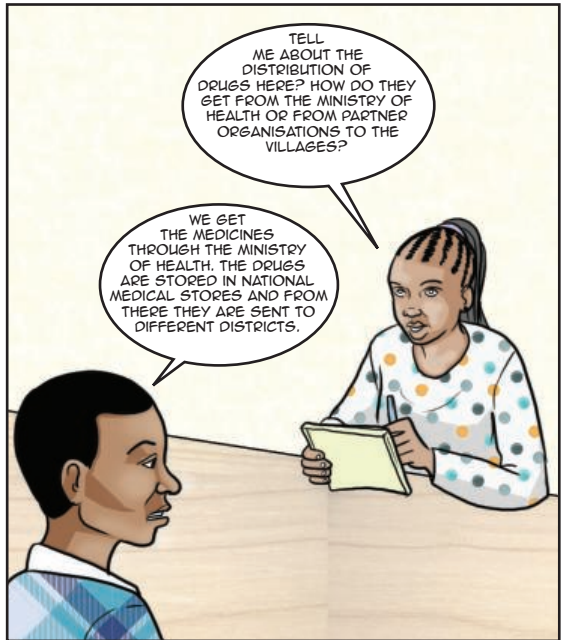
DEMBE, WELCOME TO PAKWACH. I'M OPWENYA PATRICK.

NICE TO FINALLY MEET YOU.



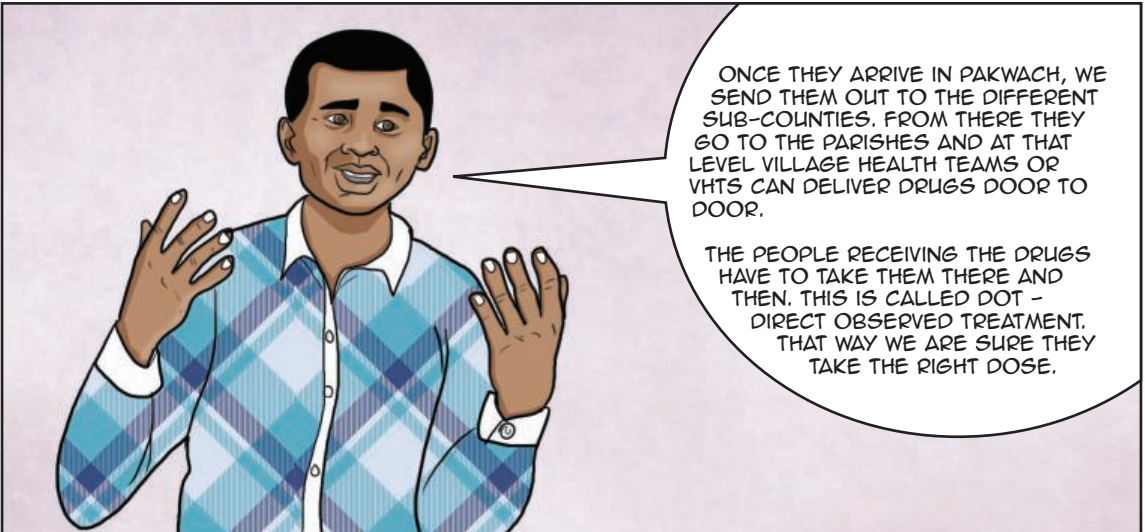
I'M WRITING A FEATURE ARTICLE ABOUT THE RISE OF BILHARZIA DESPITE THE NATIONAL MASS DRUG ADMINISTRATION PROGRAMME. WHAT CAN YOU TELL ME ABOUT THE SITUATION HERE?

WELL, THIS PROGRAMME WAS ROLLED OUT IN 2004. THE PLAN WAS TO DISTRIBUTE DRUGS ONCE A YEAR.



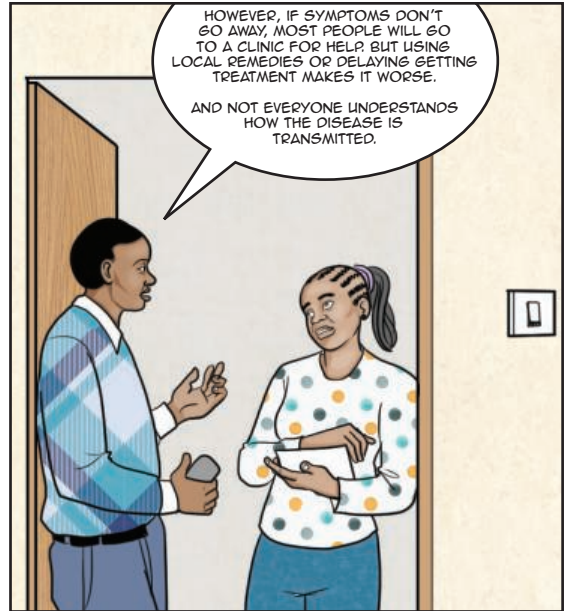
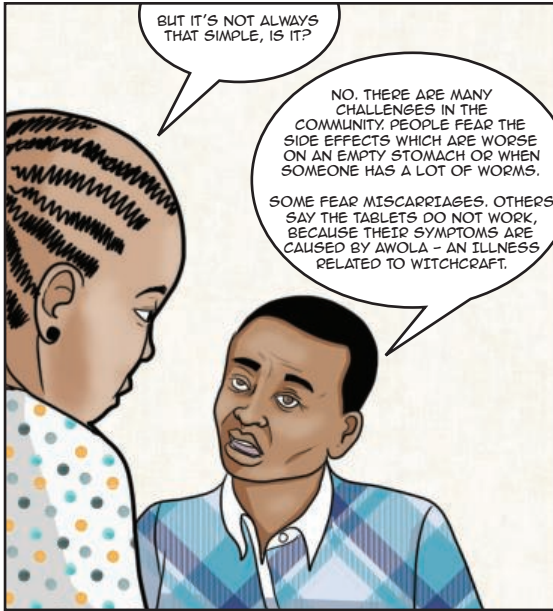
TELL ME ABOUT THE DISTRIBUTION OF DRUGS HERE? HOW DO THEY GET FROM THE MINISTRY OF HEALTH OR FROM PARTNER ORGANISATIONS TO THE VILLAGES?

WE GET THE MEDICINES THROUGH THE MINISTRY OF HEALTH. THE DRUGS ARE STORED IN NATIONAL MEDICAL STORES AND FROM THERE THEY ARE SENT TO DIFFERENT DISTRICTS.



ONCE THEY ARRIVE IN PAKWACH, WE SEND THEM OUT TO THE DIFFERENT SUB-COUNTIES. FROM THERE THEY GO TO THE PARISHES AND AT THAT LEVEL VILLAGE HEALTH TEAMS OR VHTS CAN DELIVER DRUGS DOOR TO DOOR.

THE PEOPLE RECEIVING THE DRUGS HAVE TO TAKE THEM THERE AND THEN. THIS IS CALLED DOT - DIRECT OBSERVED TREATMENT. THAT WAY WE ARE SURE THEY TAKE THE RIGHT DOSE.



Bilharzia parasite life cycle under the microscope showing intestinal (*Schistosoma mansoni*) and urinary (*Schistosoma haematobium*) forms.

5. Adult worm

1. Eggs of *S. haematobium* in urine, and Eggs of *S. mansoni* in faeces

2. Miracidium

3. Snail host

4. Cercaria

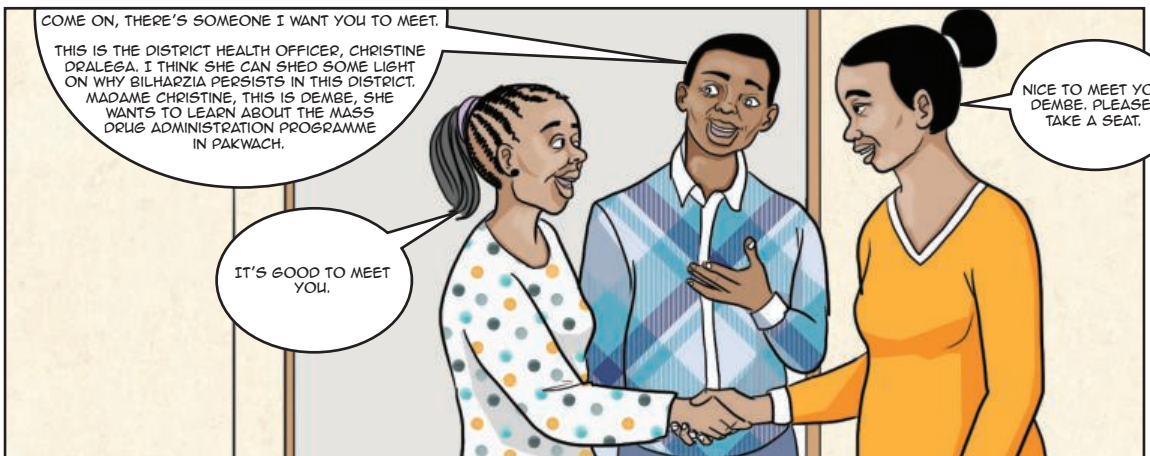
LET ME EXPLAIN THE LIFE CYCLE:

WHEN SOMEBODY WHO HAS BILHARZIA DEFAECATES OR URINATES IN THE OPEN, THEY RELEASE MICROSCOPIC EGGS WHICH WASH INTO THE RIVERS AND LAKES WHEN IT RAINS.

THESE EGGS DEVELOP AND ENTER A TYPE OF SNAIL THAT LIVES ALONG THE SHORE. AFTER SOME TIME, THE SNAILS RELEASE TINY 'CERCARIAE' WHICH LOOK LIKE WORMS UNDER A MICROSCOPE.

WHEN SOMEBODY ENTERS THE WATER WITHOUT PROTECTIVE GEAR, LIKE GUM BOOTS, THE MICROSCOPIC WORMS ENTER THROUGH THE SKIN.

THE PARASITE THEN DEVELOPS IN THE PERSON AND THEY GET SICK.





SO, WHY DO YOU THINK BILHARZIA HAS BEEN SO DIFFICULT TO ERADICATE IN PAKWACH?

DEFECATION IN THE LAKE AND RIVERS IS COMMON, BECAUSE THERE ARE SO FEW PIT LATRINES, AND PEOPLE RELY ON FISHING FOR THEIR LIVELIHOODS.



THE INFECTION RATES ARE HIGHER BECAUSE THE BILHARZIA EGGS IN THE FAECES ARE WASHED INTO THE WATER AND SNAILS IN THE WATER CARRY THE INFECTION AND GIVE IT TO PEOPLE.

KIDS PLAYING IN THE WATER CAN EASILY PICK UP THE BILHARZIA PARASITE. THE BEST THING WOULD BE TO KEEP PEOPLE FROM GOING TO THE LAKE OR USING THE LAKE WATER, BUT THAT'S HARD TO CONTROL.



THE HOPE WAS THAT THE PROGRAMME WOULD REDUCE THE NUMBER OF EGGS RELEASED INTO THE WATER AND THEREFORE LESS PEOPLE WOULD GET SICK.

WHEN TESTED, CHILDREN TEND TO HAVE HIGHER NUMBERS OF BILHARZIA EGGS, SO THE PROGRAMME FOCUSES ON GIVING THE DRUG TO SCHOOL-AGED CHILDREN, HOPING TO PREVENT THE COMPLICATIONS THAT COME WITH A LONG-TERM DISEASE. WE USED TO SEE CHILDREN WITH SWOLLEN STOMACHS, BUT THIS HAS REDUCED.

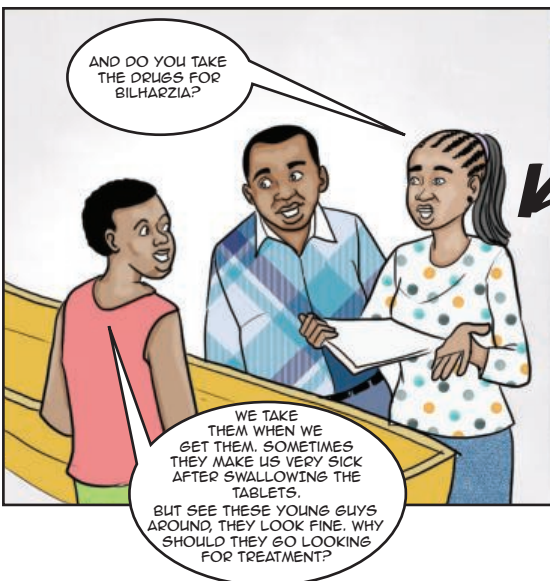
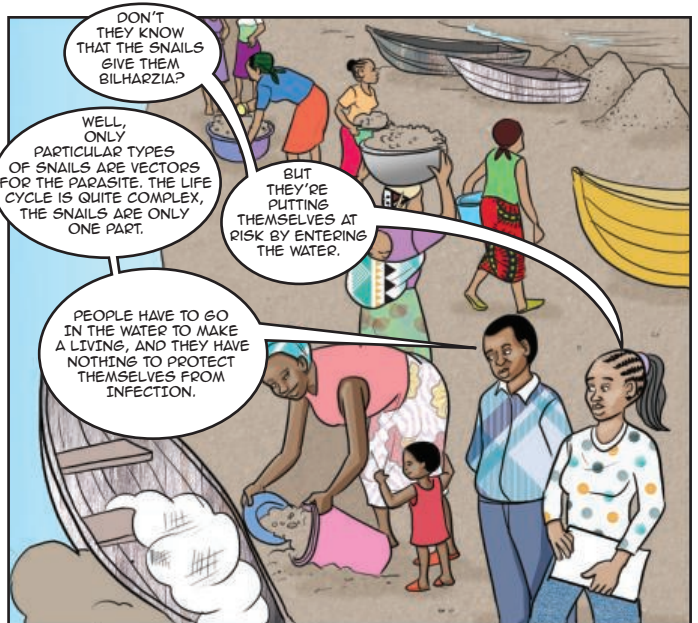
BUT IF PAKWACH DISTRICT WAS BETTER CONNECTED TO THE SUPPLY CHAIN TO MAKE SURE MEDICINE IS AVAILABLE IN HEALTH CENTRES AND CLINICS, WE WOULDN'T ONLY DEPEND ON THE DRUG DISTRIBUTION PROGRAMME.

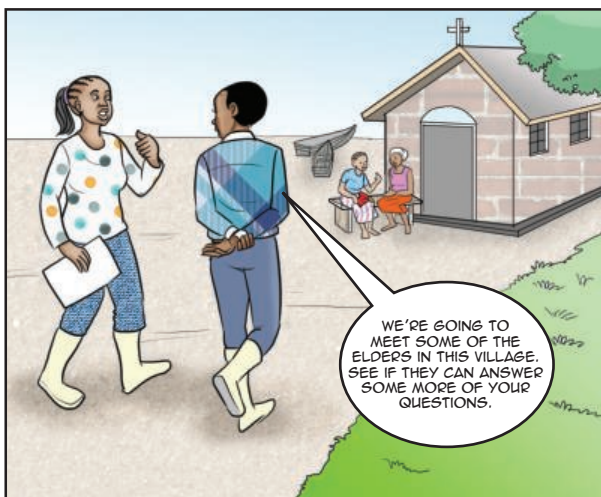
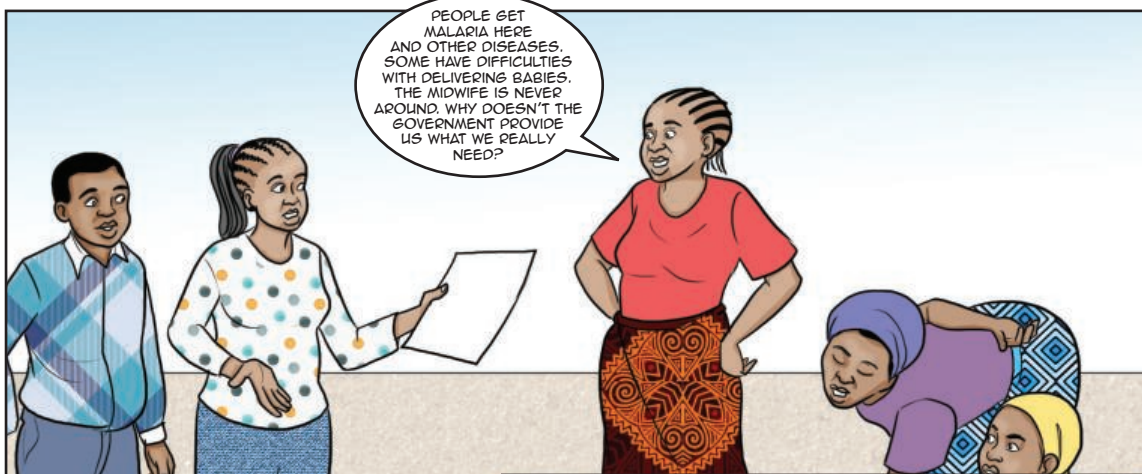


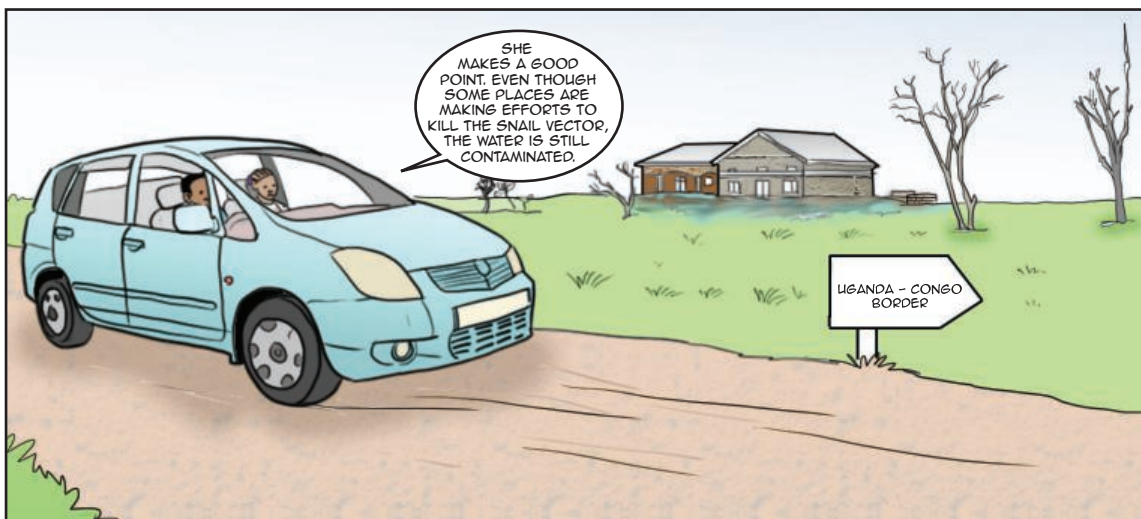
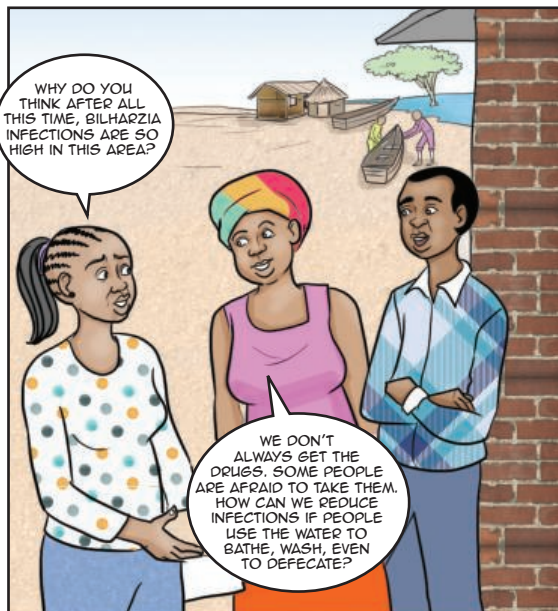
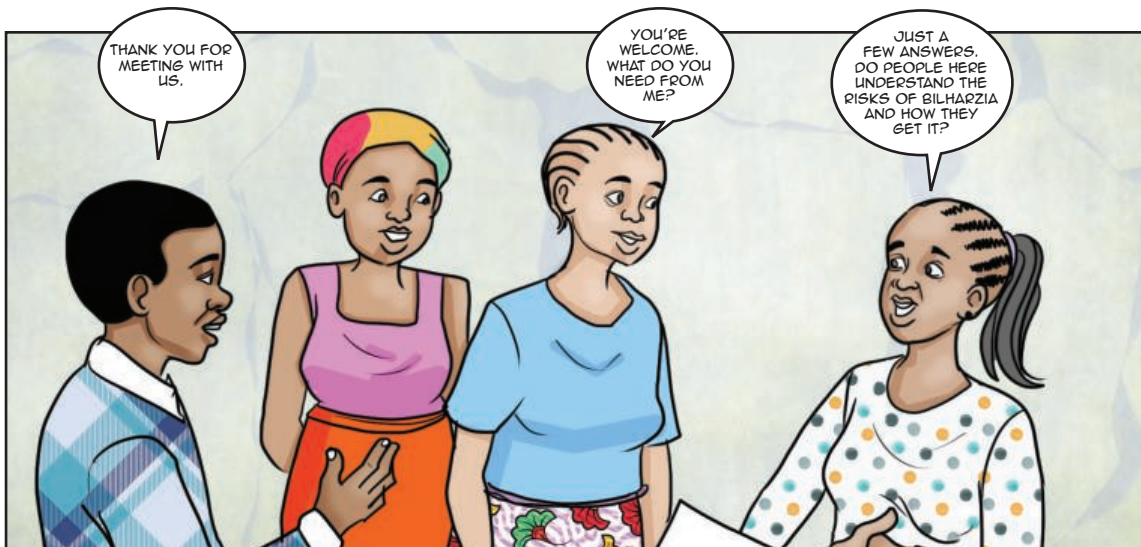
THANK YOU MADAME CHRISTINE. I'D LIKE TO SEE SOME OF THESE VILLAGES UP CLOSE.

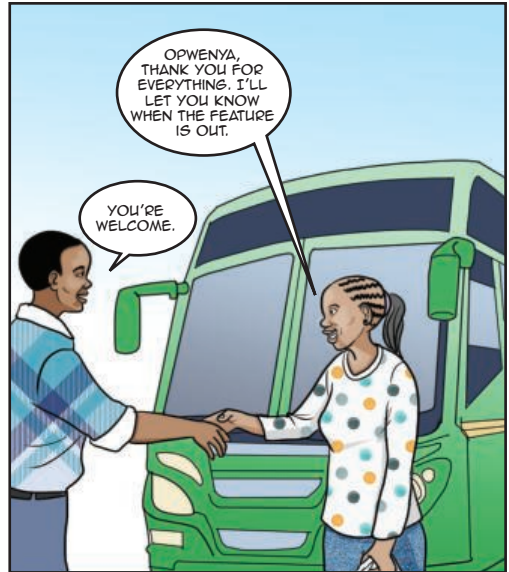
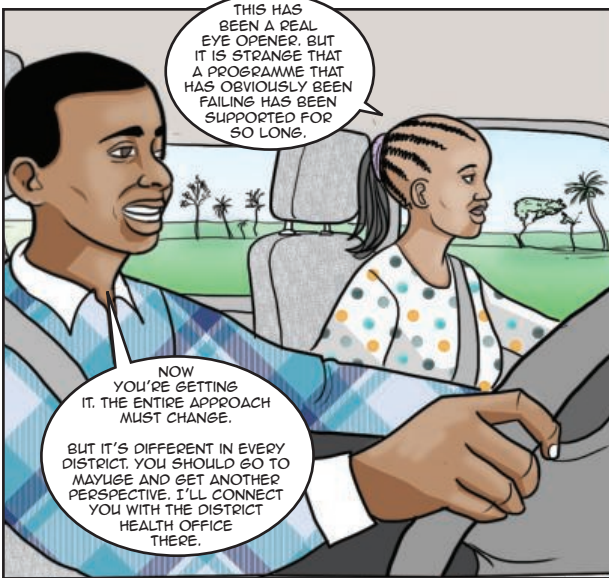
IN THAT CASE, LET'S GO TO PANYIMUR. IT'S ONE OF THE HOTSPOTS AND I THINK YOU WILL SEE WHY WHEN WE GET THERE.

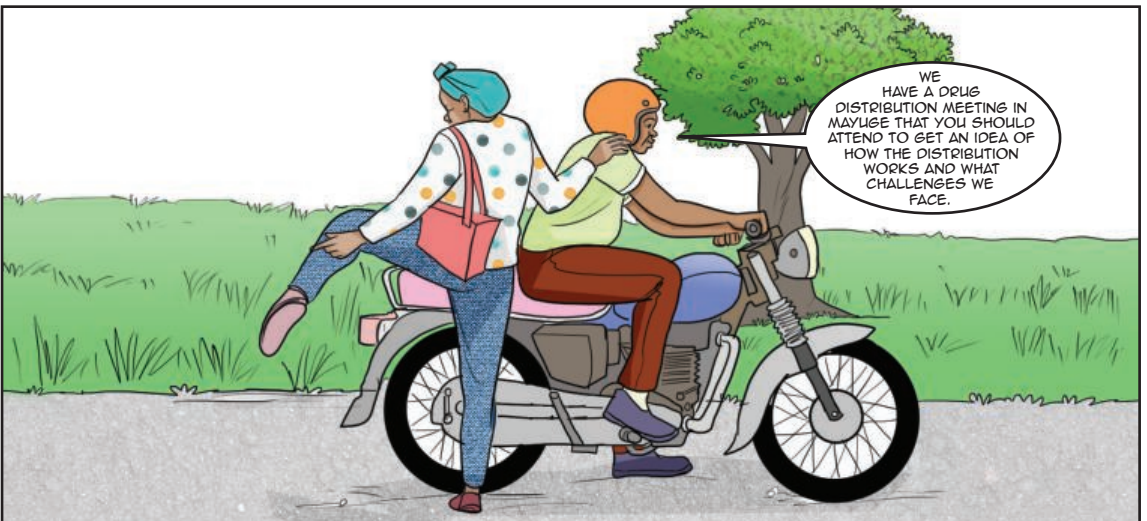
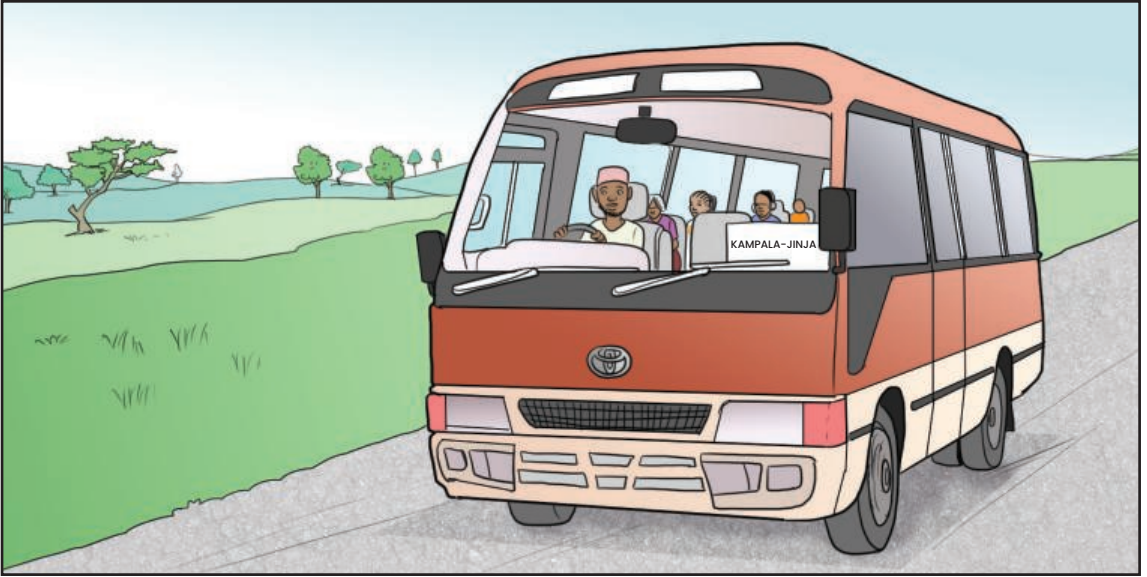
INDEED. BEST OF LUCK.

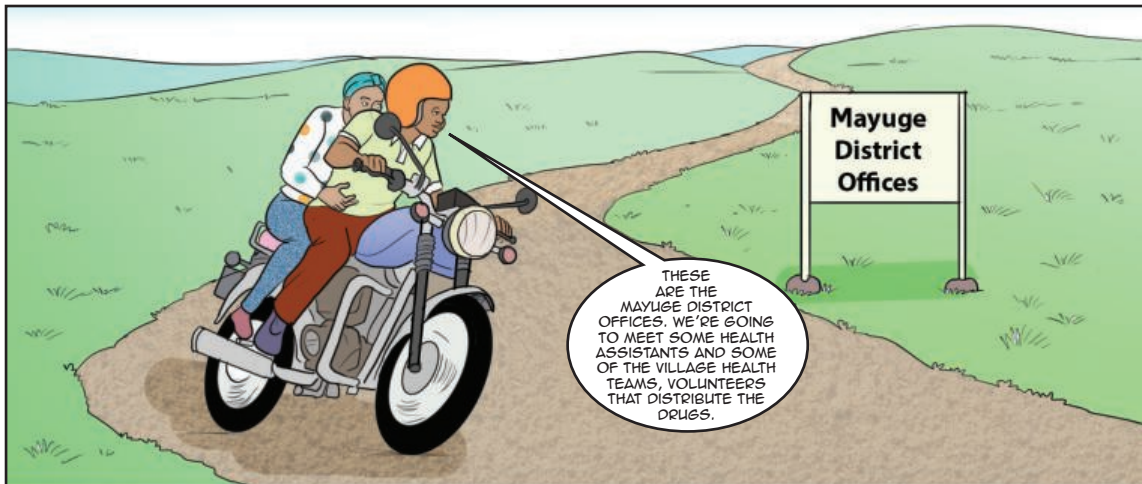












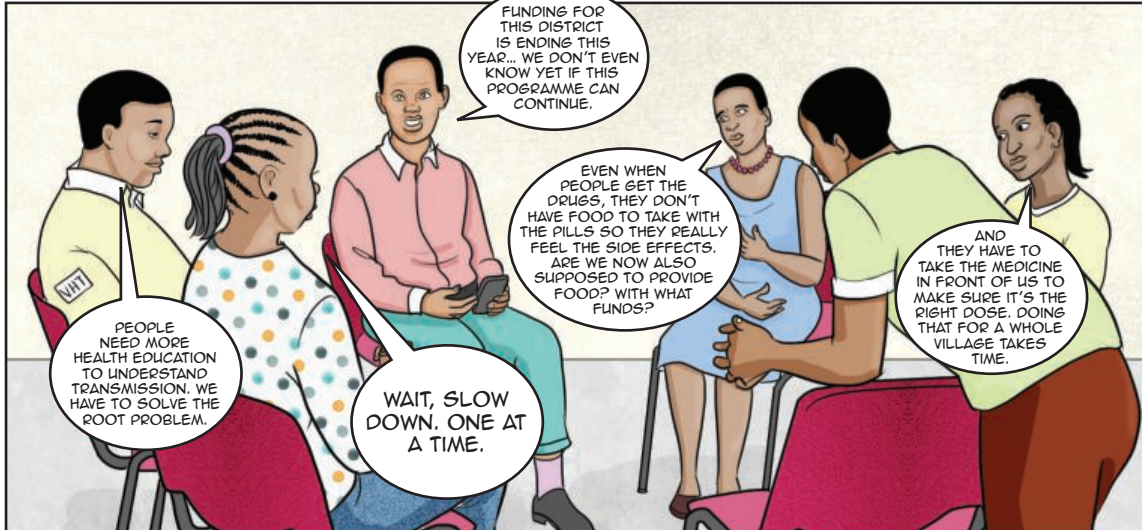
THESE ARE THE MAYUGE DISTRICT OFFICES. WE'RE GOING TO MEET SOME HEALTH ASSISTANTS AND SOME OF THE VILLAGE HEALTH TEAMS, VOLUNTEERS THAT DISTRIBUTE THE DRUGS.



THESE CHARTS SHOULD HELP US IDENTIFY SOME OF THE DISTRIBUTION PROBLEMS.

COULD I HEAR FROM THE HEALTH ASSISTANTS AND VHTS WHAT CHALLENGES THEY ARE HAVING?

WHO WANTS TO START?



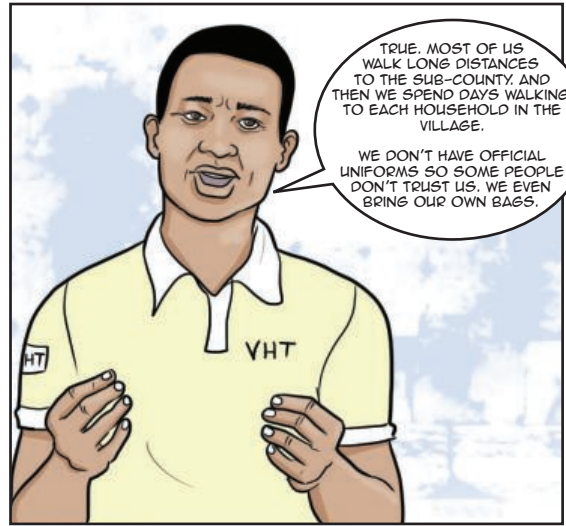
FUNDING FOR THIS DISTRICT IS ENDING THIS YEAR... WE DON'T EVEN KNOW YET IF THIS PROGRAMME CAN CONTINUE.

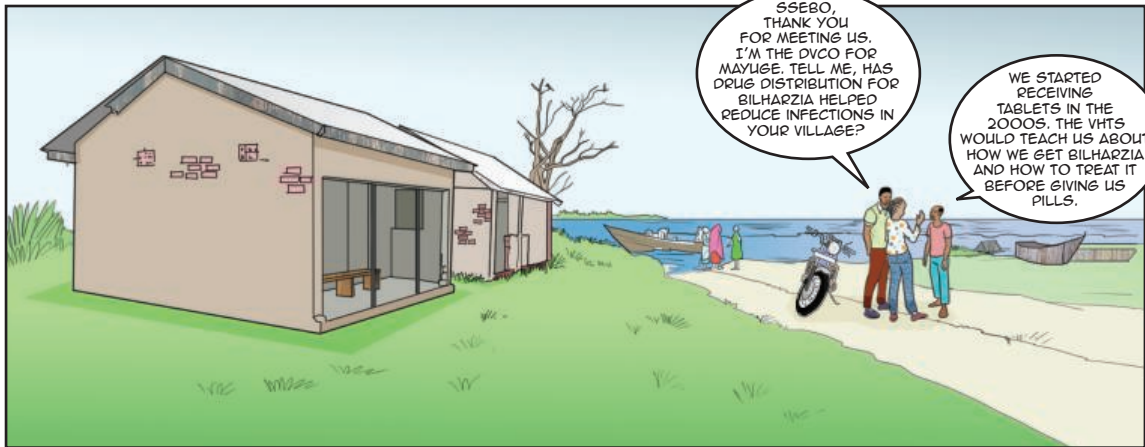
EVEN WHEN PEOPLE GET THE DRUGS, THEY DON'T HAVE FOOD TO TAKE WITH THE PILLS SO THEY REALLY FEEL THE SIDE EFFECTS. ARE WE NOW ALSO SUPPOSED TO PROVIDE FOOD? WITH WHAT FUNDS?

AND THEY HAVE TO TAKE THE MEDICINE IN FRONT OF US TO MAKE SURE IT'S THE RIGHT DOSE. DOING THAT FOR A WHOLE VILLAGE TAKES TIME.

PEOPLE NEED MORE HEALTH EDUCATION TO UNDERSTAND TRANSMISSION. WE HAVE TO SOLVE THE ROOT PROBLEM.

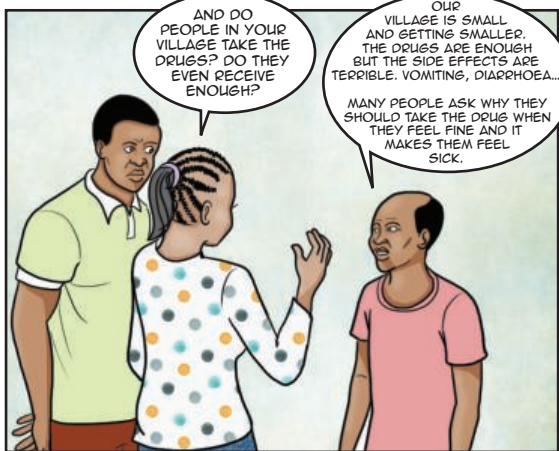
WAIT, SLOW DOWN. ONE AT A TIME.





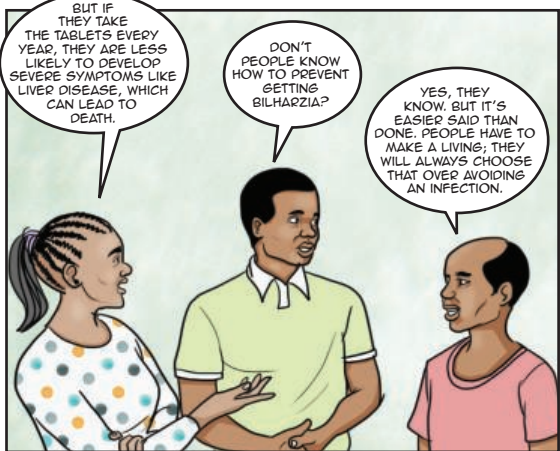
SSEBO, THANK YOU FOR MEETING US. I'M THE DVCO FOR MAYUGE. TELL ME, HAS DRUG DISTRIBUTION FOR BILHARZIA HELPED REDUCE INFECTIONS IN YOUR VILLAGE?

WE STARTED RECEIVING TABLETS IN THE 2000S. THE VHTS WOULD TEACH US ABOUT HOW WE GET BILHARZIA AND HOW TO TREAT IT BEFORE GIVING US PILLS.



AND DO PEOPLE IN YOUR VILLAGE TAKE THE DRUGS? DO THEY EVEN RECEIVE ENOUGH?

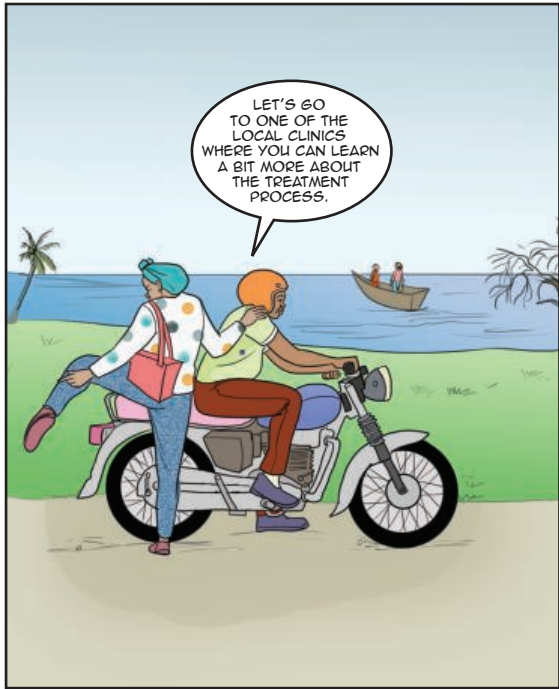
OUR VILLAGE IS SMALL AND GETTING SMALLER. THE DRUGS ARE ENOUGH BUT THE SIDE EFFECTS ARE TERRIBLE. VOMITING, DIARRHOEA... MANY PEOPLE ASK WHY THEY SHOULD TAKE THE DRUG WHEN THEY FEEL FINE AND IT MAKES THEM FEEL SICK.



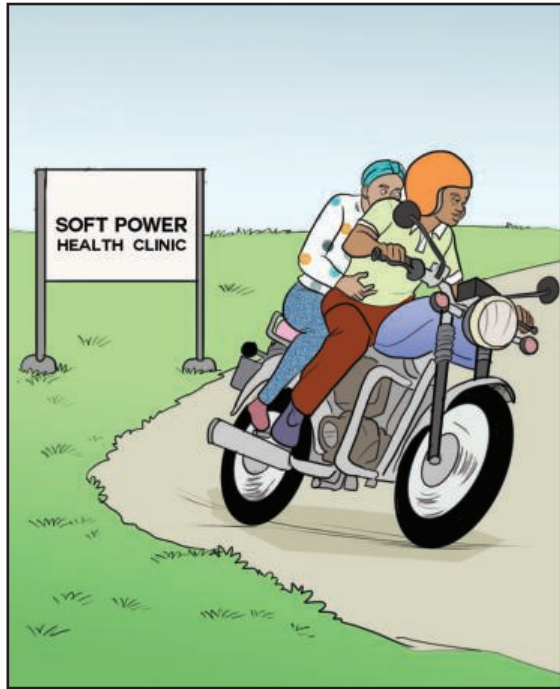
BUT IF THEY TAKE THE TABLETS EVERY YEAR, THEY ARE LESS LIKELY TO DEVELOP SEVERE SYMPTOMS LIKE LIVER DISEASE, WHICH CAN LEAD TO DEATH.

DON'T PEOPLE KNOW HOW TO PREVENT GETTING BILHARZIA?

YES, THEY KNOW. BUT IT'S EASIER SAID THAN DONE. PEOPLE HAVE TO MAKE A LIVING. THEY WILL ALWAYS CHOOSE THAT OVER AVOIDING AN INFECTION.



LET'S GO TO ONE OF THE LOCAL CLINICS WHERE YOU CAN LEARN A BIT MORE ABOUT THE TREATMENT PROCESS.







THERE ARE DIFFERENT STRAINS: 'MANSONI' AND 'HAEMATOBILIUM'. IN UGANDA WE HAVE BOTH, BUT 'MANSONI' IS MORE WIDESPREAD. FOR 'MANSONI' WE TEST PEOPLE'S STOOL. THE STOOL ANALYSIS CAN SHOW THE OVA, WHICH ARE THE EGGS OF THE MATURE PARASITE.

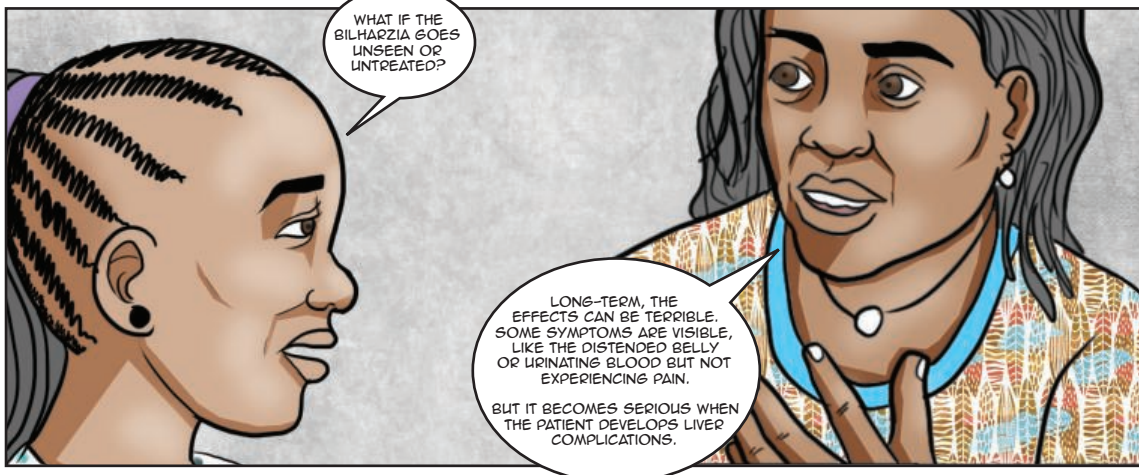


'MANSONI' SHOWS UP IN STOOL, AND 'HAEMATOBILIUM' IN THE URINE. HOWEVER, THE TREATMENT IS THE SAME FOR BOTH TYPES OF BILHARZIA.

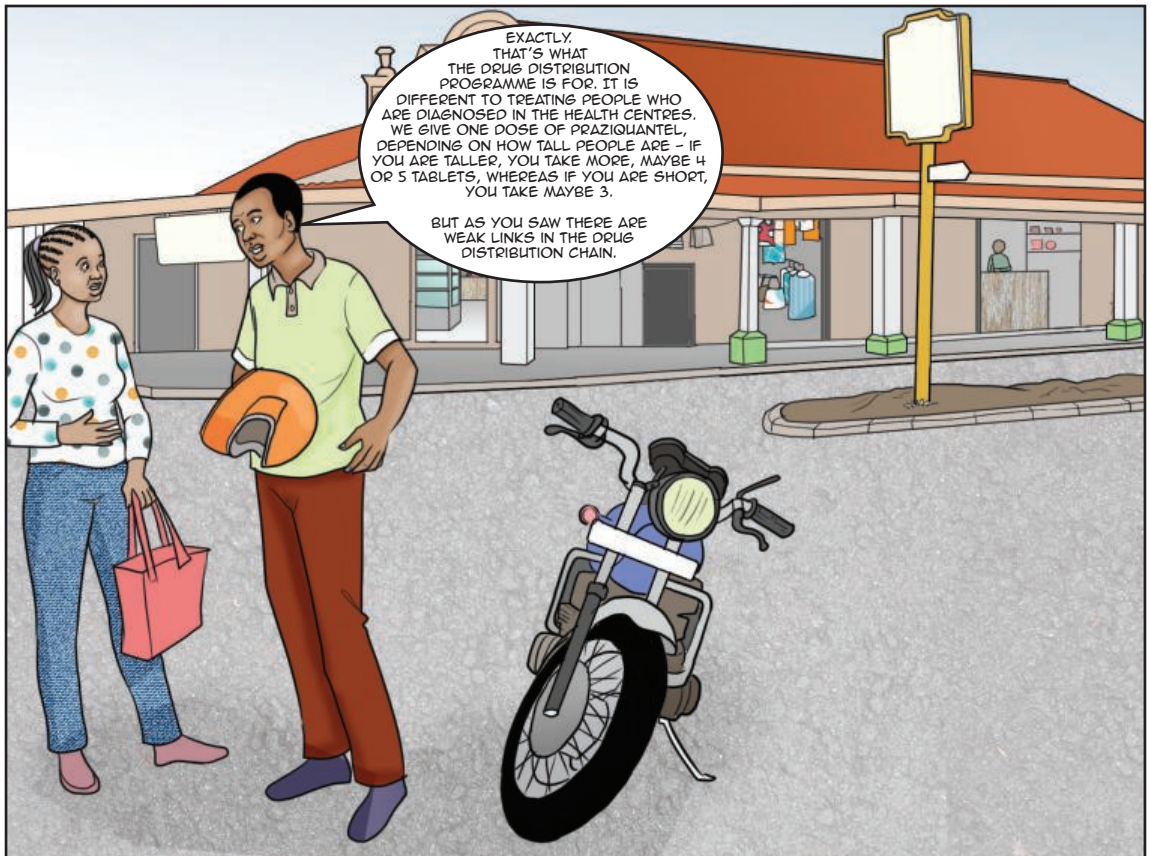


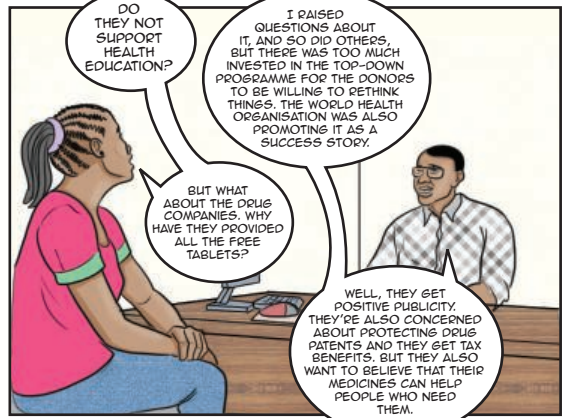
IF SOMEBODY IS DIAGNOSED WITH BILHARZIA, WE GIVE REPEATED DOSES OF PRAZIQUANTEL. BECAUSE PRAZIQUANTEL ONLY KILLS THE ADULT WORMS IN THE BODY, WE MUST TREAT THEM AGAIN AFTER A FEW WEEKS IN CASE THERE ARE SOME STILL DEVELOPING IN THE BODY.







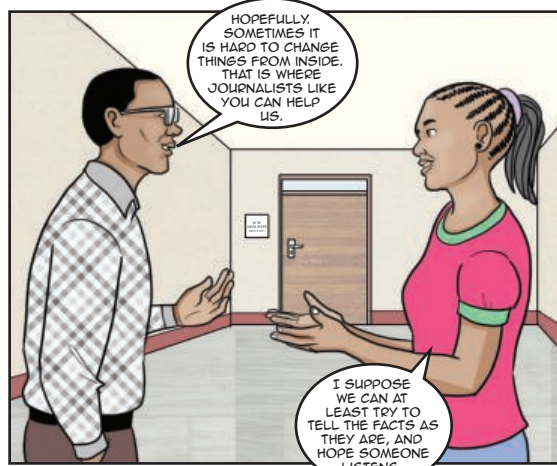






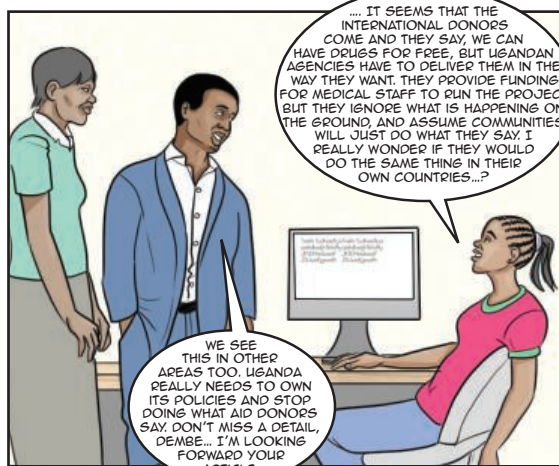
THAT IS WHAT THE GOVERNMENT IS NOW COMMITTED TO - UNIVERSAL HEALTH COVERAGE. WE HAVE TO MAKE OUR INTERNATIONAL COLLEAGUES UNDERSTAND THAT PROVIDING FREE DRUGS IN A WAY THAT CRIPPLES OUR SYSTEM DOESN'T WORK.

AND WILL UGANDA'S AID DONORS ACCEPT THAT?



HOPEFULLY SOMETIMES IT IS HARD TO CHANGE THINGS FROM INSIDE. THAT IS WHERE JOURNALISTS LIKE YOU CAN HELP US.

I SUPPOSE WE CAN AT LEAST TRY TO TELL THE FACTS AS THEY ARE, AND HOPE SOMEONE LISTENS.



... IT SEEMS THAT THE INTERNATIONAL DONORS COME AND THEY SAY, WE CAN HAVE DRUGS FOR FREE, BUT UGANDAN AGENCIES HAVE TO DELIVER THEM IN THE WAY THEY WANT. THEY PROVIDE FUNDING FOR MEDICAL STAFF TO RUN THE PROJECT. BUT THEY IGNORE WHAT IS HAPPENING ON THE GROUND, AND ASSUME COMMUNITIES WILL JUST DO WHAT THEY SAY. I REALLY WONDER IF THEY WOULD DO THE SAME THING IN THEIR OWN COUNTRIES...?

WE SEE THIS IN OTHER AREAS TOO. UGANDA REALLY NEEDS TO OWN ITS POLICIES AND STOP DOING WHAT AID DONORS SAY. DON'T MISS A DETAIL, DEMBE... I'M LOOKING FORWARD YOUR ARTICLE.



References

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Research highlighting the problems with control programmes for schistosomiasis in Uganda.

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3. Parker, M., Allen, T. (2011). Does mass drug administration for the integrated treatment of neglected tropical diseases really work? Assessing evidence for the control of schistosomiasis and soil-transmitted helminths in Uganda. *Health Res Policy Sys* 9, 3. Accessed here: <https://health-policy-systems.biomedcentral.com/articles/10.1186/1478-4505-9-3>
4. Allen, T., Parker, M. (2012). Will increased funding for neglected tropical diseases really make poverty history? *The Lancet* 379, 9821. Accessed here: [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(12\)60159-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(12)60159-7/fulltext)
5. Yamey G (2009). The Unsung Hero of Neglected Tropical Diseases: Interview with Narcis Kabatereine. *PLoS Negl Trop Dis* 3(12). Accessed here: <https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0000546>
6. Exum NG, Kibira SPS, Ssenyonga R, Nobili J, Shannon AK, Ssempebwa JC, et al. (2019). The prevalence of schistosomiasis in Uganda: A nationally representative population estimate to inform control programs and water and sanitation interventions. *PLoS Negl Trop Dis* 13(8). Accessed here: <https://journals.plos.org/plosntds/article?id=10.1371/journal.pntd.0007617>