

**2022 & 2023 Tuberculosis Survey
Data Analysis Report
Amber Pina, MPH '23**

April 2023

Overview:

Tuberculosis (TB) is a potentially serious infectious disease that mainly affects the lungs, and can spread from person to person through tiny droplets released via coughs and sneezes. Despite treatments for tuberculosis being available, disease stigma and poor disease knowledge continues to be a major factor affecting compliance to treatment among patients in Sub-Saharan Africa and influences their health seeking behaviors.

Objectives:

The data collected from the 2022 and 2023 tuberculosis survey was intended to establish existing disease knowledge and address possible fears and misconceptions about the disease in the region (Uganda, Africa). The information collected will also act as a guide for outlining solutions to decrease tuberculosis prevalence based on identified issues.

Data Collection and Statistical Analysis:

The 2022 (99 respondents) and 2023 (93 respondents) data was collected by the Rose Academies Uganda ground team utilizing KoboToolbox, a platform for field data collection, that cataloged questionnaire responses. Survey volunteers were asked for their consent to participate and informed about the purpose of the survey; Once they agreed to partake in the survey, they were given tablets to record their responses.

The survey was compiled of a variety of questions ranging from baseline demographics, health behaviors, tuberculosis knowledge, and more. Following data collection of survey responses, data analysis was conducted via Microsoft Excel and Tableau Public.

Demographic characteristics

	Gender			
Age (years)	Female 2022	Female 2023	Male 2022	Male 2023
11-20	13	4	8	7
21-30	26	23	27	20
31+	14	22	11	17
Total	53	49	46	44

2023 Tribe Association		Percentage (%)
Badaama	3	3.22%
Baganda	10	10.75%
Bakiga	1	1.08%
Basoga	23	24.73%
Itesots	6	6.45%
Other	50	53.76%

Highest Level Of Education Attained		
Levels	2022	2023
Never gone to school	25 (25.25%)	12 (12.90%)
Lower primary	23 (23.23%)	29 (31.18%)
Lower secondary	21 (21.21%)	15 (16.13%)
Upper primary	28 (28.28%)	32 (34.41%)
Upper secondary	0 (0%)	5 (5.28%)
Vocational training	2 (2.02%)	0 (0%)
Total	99	93

Employment status		
	2022	2023
Yes	40 (40.40%)	25 (26.88%)
No	59 (59.60%)	68 (73.12%)
Total	99	93

2023 Employment

What do you do for employment?

Null	25
Beauty/hair	1
Business office	2
Caregiver	1
Farmer	25
Farmer Fisherman	1
Farmer Fisherman Sales	1
Farmer Fisherman Sales Other	1
Farmer Food service	1
Farmer Other	1
Fisherman	15
Food service	5
Food service Work in the market	1
Other	10
Tailoring	1
Teacher	1
Work in the market	1



Health Behaviors

2022	Addiction	
Medical Condition	No	Yes
No	37 (37.37%)	6 (6.06%)
Yes	45 (45.45%)	11 (11.11%)
Total	99	
2023	Addiction	
Medical Condition	No	Yes
No	31 (33.33%)	1 (1.01%)
Yes	53 (56.98%)	8 (8.60%)
Total	93	

What are you addicted to?

Null	82
Alcohol	8
Cigarettes	4
Herbal Medications, Marijuana, etc.	3
non-prescribed Drugs	2

If yes, what are you addicted to?

Null	84
Alcohol	2
Alcohol Cigarettes	1
Cigarettes	5
Other	1

Clinic visitation	2022 Survey
Never go	25 (25.25%)
Once a month	14 (14.14%)
Once a year	10 (10.10%)
Once every 3 months	18 (18.18%)
Once every few years	22 (22.22%)
Once every 6 months	10 (10.10%)
Total	99

2022 Clinic Information

How far away is the nearest clinic?

How do you get to the clinic?	Close to my home	Far from my home	Very far from my home
Null	8	15	2
Bicycle	4	1	2
Boda Boda	7	17	4
Someone takes me		2	
Taxi		1	1
Walk	24	10	1

Tuberculosis knowledge

2022 Tuberculosis Testing

		Have you ever been vaccinated for Tuberculosis (TB)?		
Have you ever been in contact with someone who has/had TB?	Have you ever been in contact with someone who has/had TB?	I don't know	No	Yes
I don't know	I don't know	6	4	
No	No	10	22	24
Yes	Yes	10	14	9

2022 Tuberculosis Testing

		Can you die from TB if you don't get treatment?		
Can you die from TB if you don't take your medications regularly as prescribed?		I don't know	No	Yes
I don't know		9		10
No		1	3	5
Yes				71

2022 Tuberculosis Knowledge

		How is TB diagnosed?				
Have you ever been tested for tuberculosis?		Blood test	Blood test I don't know	I don't know	Skin test	Skin test Blood test
I don't know				2		1
No		30	2	42	1	2
Yes		13	1	3	1	1

2022 Tuberculosis Knowledge & Stigma

Which organ is most affected when you have TB?	Would you sleep next to someone in your home that has TB? / Would you eat with someone in your home that has TB?			
	No		Yes	
	No	Yes	No	Yes
I don't know	20	2	2	2
Heart	2	4		4
Lungs	51	5	3	4

2022 Tuberculosis Knowledge

How can the spread of TB be prevented?

Covering nose and mouth when coughing or sneezing	24
Covering nose and mouth when coughing or sneezing Early diagnosis and treatment	1
Covering nose and mouth when coughing or sneezing Early diagnosis and treatment Eating in separate rooms from infected person	1
Covering nose and mouth when coughing or sneezing Eating in separate rooms from infected person	2
Covering nose and mouth when coughing or sneezing Vaccination	11
Covering nose and mouth when coughing or sneezing Vaccination Early diagnosis and treatment	1
Early diagnosis and treatment	13
Early diagnosis and treatment Eating in separate rooms from infected person	1
Eating in separate rooms from infected person	9
Vaccination	21
Vaccination Early diagnosis and treatment	3
Vaccination Early diagnosis and treatment Eating in separate rooms from infected person	1
Vaccination Eating in separate rooms from infected person	1
Washing hands	4
Washing hands Covering nose and mouth when coughing or sneezing	2
Washing hands Covering nose and mouth when coughing or sneezing Vaccination	4

2023 Tuberculosis knowledge

Anyone who has TB is always HIV/AIDs positive	Can you die from TB if you don't get treatment?	Can you die from TB if you don't take your medications regularly as prescribed?	
I don't know	I don't know	I don't know	21
	Yes	I don't know	1
		No	1
		Yes	5
No	I don't know	I don't know	1
		Yes	1
	Yes	I don't know	2
		No	7
		Yes	37
Yes	I don't know	I don't know	2
	No	No	1
	Yes	Yes	14

2023 Tuberculosis knowledge

How can you prevent getting TB?	How do you get TB?			
	All the above	Breathing in the air particles from a person infected with TB	Don't Know	Sleeping in the same room as a person infected with TB
All the above		1	1	
Don't smoke			1	
Don't smoke I don't know			1	
I don't know		6	22	
None of the above		3	2	
Vaccination		5	1	
Vaccination Wash hands often Wear a mask if you are around someone that has TB		9	2	
Vaccination Wash hands often Wear a mask if you are around someone that has TB Don't smoke	1	3		
Vaccination Wear a mask if you are around someone that has TB		7		
Vaccination Wear a mask if you are around someone that has TB Don't smoke	2	2		1
Wash hands often		2		
Wash hands often Wear a mask if you are around someone that has TB		2		
Wash hands often Wear a mask if you are around someone that has TB Don't smoke			1	
Wear a mask if you are around someone that has TB		8	8	
Wear a mask if you are around someone that has TB Don't smoke		1	1	

2023 Tuberculosis knowledge & stigma

Is it embarrassing or shameful to have TB in your village/community?	Would you eat with someone in your home that has TB?	Would you sleep next to someone in your home that has TB?	Is TB curable?		
			I don't know	No	Yes
No	No	No	16	2	25
		Yes	1		1
	Yes	No			8
		Yes	6	2	3
Yes	No	No	4	4	9
		Yes			1
	Yes	No			3
		Yes	5		3

2022 Tuberculosis Survey Results:

A total of 99 men (46) and women (53) from the Buikwe District in the Central Region of Uganda responded to the 2022 Rose Academies Tuberculosis Survey. Majority of the respondents (43 people) fell into the 21 to 30 year age category, with the second most responsive age group being those aged 16 to 20 years.

While analyzing baseline demographic information it was interesting to find that more women than men identified with upper primary school as being their highest level of education; For instance, 19 women reported completing upper primary school while only 9 men reported the same, and more men (15) than women (8) reported never going to school at all.

When asked about work 59 people said they were employed, and the top response was being a fisherman (27).

On another note, of the 53 women interviewed 47 reported being a mother, and most reported becoming a mother at 17 to 18 years old.

When men were asked if they had children only 26 said yes, and the most common number of children either gender of parent reported having was 1 to 2 children.

Regarding health care, 31 people stated they were currently taking medications, and when respondents were asked in general where they receive their medication majority (30 people) said a clinic; However, most reported going to a clinic only every few years with the second most common response being never going to a clinic period. It could be inferred this is due to clinics being far from homes since 46 individuals reported this, and an

additional 10 individuals said the nearest clinic is very far from their home. Furthermore, it proves even more difficult for individuals to go to the nearest clinic from their home when the most common mode of transportation being walking.

Hence, it was not surprising to find that 77 of the 99 respondents stated they had never been tested for tuberculosis, and only 33 stated they were vaccinated for the disease. Nevertheless, disease knowledge is quite high in this group of respondents with 63 people knowing lungs are the most affected organ and that coughing is the most common disease symptom that can lead to infection. In continuation, 68 individuals reported tuberculosis is curable, 46 said tuberculosis does not inherently mean you have aids, 53 understood treatment should be completed despite feeling better, and 86 respondents understood the importance of tuberculosis treatment and how death could be the result of not seeking treatment.

A perplexing finding I found was that 78 individuals would not eat or sleep with someone who has tuberculosis, but over 70 individuals reported that it was not embarrassing or shameful to have tuberculosis in your family or community. The reason this perplexed me is because it appears stigma is not prevalent, yet people are still afraid of being near a diseased individual.

2023 Tuberculosis Survey Results:

A total of 93 men (44) and women (49) from the Buikwe District in the Central Region of Uganda responded to the 2023 Rose Academies Tuberculosis Survey. Majority of the respondents (53 people) fell into the 21 to 30 year age category, with the second most responsive age group being those aged 31 and older.

While analyzing educational data majority of the respondents reported attaining an upper primary or secondary education, a total of 37.

When asked about work 68 people said they were employed, and the top response was being a farmer (25), a change from last year's prominent response of being employed as a fisherman.

Looking at health care, it was wonderful to see that there was a decrease in addiction, but there has been an increase in medical conditions.

Since this year's data did not include transportation information like last year, I cannot say if there was a connection between transportation and medical conditions due to distance of clinic location.

However, this year's data did show an increase in the knowledge of tuberculosis testing and treatment. For instance, 71 individuals responded correctly acknowledging that tuberculosis can be deadly if not treated, and this can also be the outcome if prescribed medication is not taken properly.

On another note, it is interesting to see how the knowledge of getting and preventing tuberculosis is still a mystery to most respondents, 22 individuals said they did not know. On the contrary, there was an increase in individuals who understood having tuberculosis does not inherently mean you have HIV/AIDS, so this is wonderful.

Lastly, tuberculosis stigma has gotten better! This year majority of the respondents (25) reported acknowledging that tuberculosis is curable and not something to be embarrassed or ashamed of within their community. The stigma that remains appears to be within the family unit and not solely the community itself. Although the 25

respondents understand tuberculosis can be cured and not shameful, they still also stated that they would not eat or sleep with someone that has tuberculosis in their home.

I propose that possible questions to provide more information on this matter are: Why would you not be near an individual with tuberculosis in your home? Is it because you are afraid of contracting the disease? Is it worrisome to possibly contract tuberculosis and not be able to get treatment? It would be very interesting to see the responses to these questions and possibly understand why this fear is still present.