

# MBANO MEDICAL OUTREACH 2021 REPORT



**JANUARY 2021**

The Mbano Medical Outreach 2021 is funded by Public Health Society  
Against Infectious Diseases (PHSAID) in collaboration with:

- i. Virus Research Unit (VRU), Department of Microbiology, University of Port Harcourt,  
P.M.B. 5323 Choba, Rivers State, Nigeria.
- ii. Mbano Peoples' Assembly (MPA), Mbano, Imo State, Nigeria.

## PHSAID Report No.1

PHSAID is pleased to bring this medical outreach report

with thanks to our partners, volunteers, keynote speaker,

and the good people of Mbano in Imo State, Nigeria.

Contact:

Public Health Society Against Infectious Diseases (PHSAID)

No. 5 Pipeline Close, Beside Lonestar Drilling Company, Elimgbu, Port Harcourt, Rivers State, Nigeria.

[societyAid.org@gmail.com](mailto:societyAid.org@gmail.com); +234 (0) 8061104979

## Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
BP	Blood pressure
COVID-19	Severe Acute Respiratory syndrome – Coronavirus 2
EDTA	Ethylenediaminetetraacetic acid
FMC	Federal Medical Center
HBV	Hepatitis B Virus
HBsAg	Hepatitis B surface Antigen
HCV	Hepatitis C Virus
HCsAg	Hepatitis C surface Antigen
HIV	Human Immunodeficiency Virus
IMSU	Imo State University
LGAs	Local Government Areas
OAAADA	Organization for Awareness Against the use of Alcohol and Drug-related Abuse
PHSAID	Public Health Society Against Infectious Diseases
PLWHIV	People Living With HIV
TB	Tuberculosis
UNIPORT	University of Port Harcourt
VRU	Virus Research Unit
WHO	World Health Organization



## Executive Summary

This report presents the findings of Mbano Medical Outreach 2021. It was aimed at addressing some of the infectious health challenges that are facing communities in Mbano, Imo State. Conducted on the 1<sup>st</sup> January 2021 at Ehime Mbano, Imo State by a pool of partners/volunteers consisting of physicians, public health specialists, pharmacists, nurses, medical laboratory scientists, and non-medical personnel. The program was based on a framework which included a clear and detailed identification of goals, objectives, and evaluation systems that can be linked up to the existing healthcare systems in Mbano and the State.

Methodologies used during the outreach were interviews to gain insight into experiences of health and illness of participants from communities in Mbano. Convenience sampling method was adopted for the project. And we used an interview guide which was continuously modified for different participants. We conducted TB, HIV, HBV, and HCV tests and counselling.

A total of 204 participants were screened for TB, HIV, HBV and HCB. They were counselled and those that showed positive results including presumptive cases were referred to St. Mary Joint Hospital Mbano, and Federal Medical Center (FMC) Owerri for treatment and/or further tests. Participants received free medical supplies including drugs, condoms and facemasks. All the people that came to the venue were educated about infectious diseases (TB, HIV, HBV, and HCV), its mode of transmission, prevention, and treatment; coinfection; drug resistance; drug abuse; implication of self-medication, and importance of treatment adherence.

There were 9 PLWHIV, 2(0.98%) males and 7(3.4%) females out of the total number of people that participated in the screening. Forty (19.6%) participants tested positive for TB. A total of 9(4.4%) and 4(2%) participants were infected with HBV and HCV respectively. TB-, HBV-, and HCV-related symptoms were reported in 15(7.4%), 6(2.9%), and 3(1.5%) of screened encounters respectively, while in 1(0.49%) of PLWHIV, symptoms were reported.

A successful partnership will empower the communities and minimize, if not eliminate the idea that they are mere recipients of aid. Therefore, there is need to build a sustainable program through frequent visits and long-term partnerships.

## Table of Contents

Executive summary.....	1
Prologue.....	3
Rationale of the medical outreach.....	3
Goals.....	4
Context.....	5
Material resources.....	6
Organizers/partners/volunteers.....	7
Mobilization and training.....	7
Outcome of medical outreach.....	9
Demographic information.....	10
Sexual history.....	14
History of drug use.....	14
History of infection and treatment.....	14
Result of tests.....	15
Challenges encountered.....	16
Recommendations.....	16
Conclusions.....	17
Ethical approval.....	17
Appendix.....	18

## Prologue:

The Mbano Medical Outreach 2021 was launched by PHSAID in October 2020 to address some of the infectious health challenges that are facing communities in Mbano, Imo State. Firstly, we answered seven key questions that was outlined in **PHSAID's decision checklist of medical outreach** (Table 1) which we developed before we embarked on the outreach. Having checked and answered 'YES' in all, we then proceeded to develop a framework for the program which included a clear and detailed identification of goals, objectives and evaluation systems that can be linked up to the existing healthcare systems in Mbano and the State. The project was executed on the 1<sup>st</sup> January 2021 at Ehime Mbano L.G.A. stadium, Imo State.

**Table 1: PHSAID Decision Checklist of Medical Outreach**

	Questions	YES	NO
1	Is there a need for medical outreach in the communities?		
2	Will challenges to accessing healthcare be reduced by this medical outreach?		
3	Will our organization meet her goals by conducting this medical outreach?		
4	Does this medical outreach require ethical approval, and if YES, is it something we can get?		
5	Are there risks associated with this medical outreach?		
6	Are these risks what we can handle?		
7	Do we have the resources to carry out this medical outreach?		

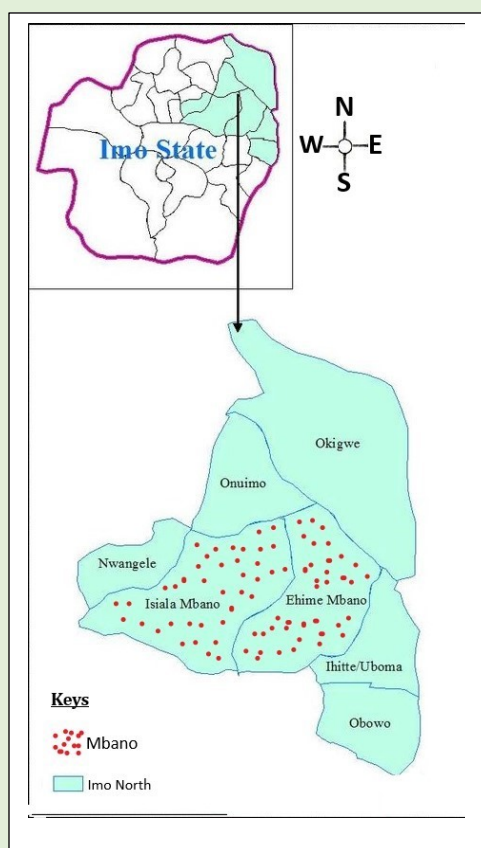
## Rationale of the Medical Outreach:

The burden of tuberculosis, HIV/AIDS and hepatitis in Nigeria, no doubt is increasing by the day. There are relatively high prevalence rates of these diseases in a state like Imo. For instance, on 20<sup>th</sup> September 2019, it was reported that the program coordinator of Imo State HIV/AIDS and sexually transmitted infection control, Dr. Desmond Emenalo disclosed that 3,891 out of 133,792 persons screened for HIV between January and June 2019 tested positive to the infection(*The Guardian*). This and many other reports suggest that efforts should be geared towards the elimination of these diseases.

Mbano is an agrarian rural community in Imo State (Figure 1). In 2020, before Mbano Medical Outreach 2021, PHSAID identified four major healthcare challenges affecting communities in Mbano. These include:

1. **Lack of well-equipped medical facility:** St. Mary Joint Hospital, Mbano is the only functional general hospital in Mbano. The hospital is poorly equipped, and it lacks basic critical health infrastructures. Some of the communities in Mbano have primary health centers which lack essential drugs, diagnostic equipment, and medical consumables. This may be due to poor funding by government as well as inadequate support from non-governmental organizations.

2. **Challenges to accessing healthcare:** Access to transportation, and finance enables people to access healthcare centers. Usually, individuals in remote communities find it difficult to get medical help they desired because of cost of transportation, lack of health insurance, and lack of finance to buy basic needs like groceries. This can contribute to delay in seeking treatment as some who cannot walk the distance for a long time may prefer not to seek for help. Patients who do not have money usually think of survival (that is, what to eat or resources to take care of a family member) before considering out-of-pocket expenditure for treatment and other healthcare services. Patients from resource-constrained settings may experience a total delay before initiating treatment, this could also result in more complications and economic costs for the patient and expose families to financial risks and burdens, as well as lead to late disease diagnosis and management. This is the situation most communities in Mbano found themselves.
3. **Service barrier to healthcare:** The allocation of healthcare resources including the healthcare workforce, in Mbano, is skewed towards tertiary services which are predominantly situated in urban areas. Currently, most HIV, TB, hepatitis testing and treatment are provided at tertiary level care, which are not easily accessible to majority of the people living in rural areas.
4. **Poor knowledge about infectious diseases:** The importance of awareness and sensitization of the public about infectious diseases cannot be overemphasized. In Mbano, knowledge about drug resistance, and coinfection are deficient; knowledge about infectious diseases mode of transmission, prevention, treatment, and management are not well disseminated to the grassroots. People are not well informed about the importance of adherence to treatment as well as the implication of self-medication.



**Figure 1:** Map of Mbano, Imo State of Nigeria.

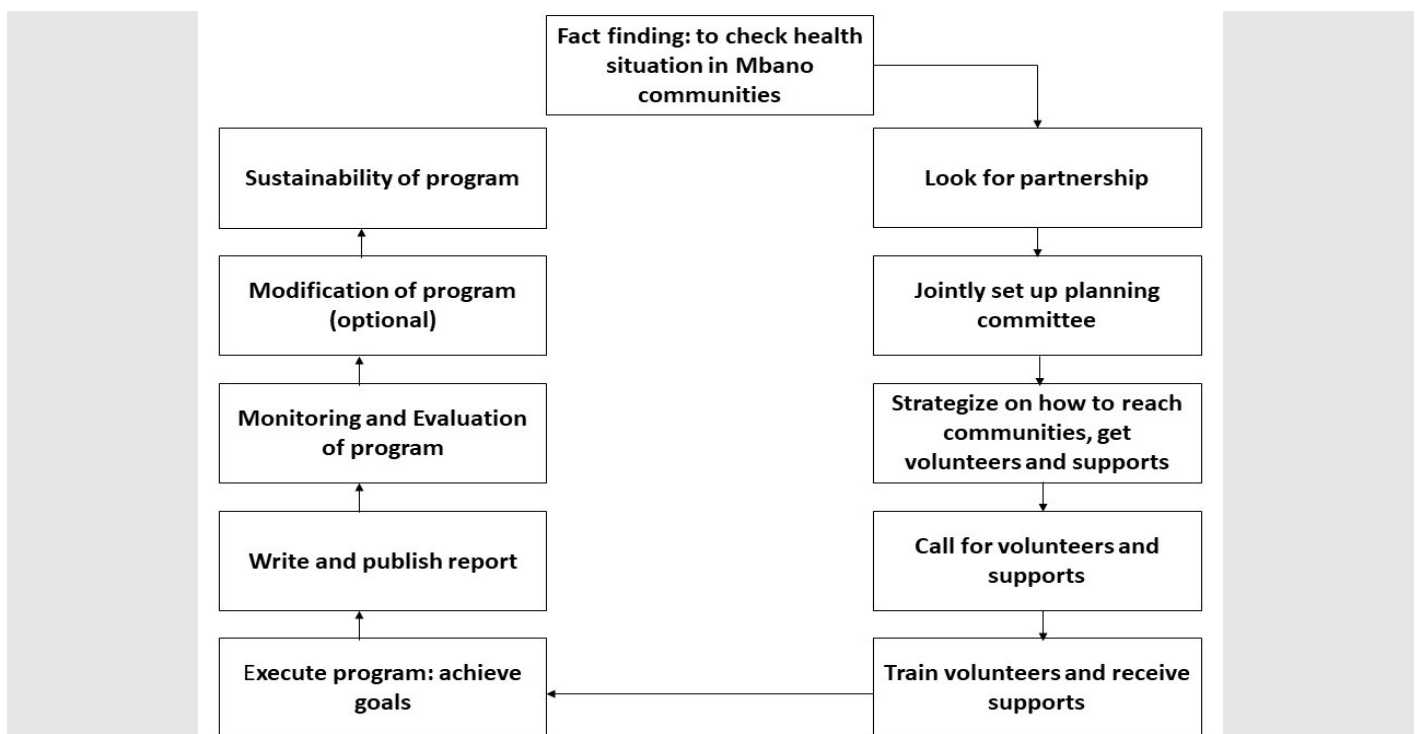
## Goals:

There was clear and detailed identification of objectives and goals that can be synergized with the existing healthcare system in Mbano or Imo State. We did this to encourage community participation and contribution; as well as to avoid unnecessary dependency on external support. Mbano Medical Outreach focuses on:

1. Health advocacy to educate people about infectious diseases (TB, HIV, HBV, and HCV), its mode of transmission, prevention, and treatment; coinfection; drug resistance; implication of self-medication, and importance of treatment adherence.
2. Free voluntary HIV test and counselling.
3. Free voluntary TB antibody rapid test, and physical examination.
4. Free voluntary HBV and HCV tests.
5. Free medication and medical supplies.
6. Recommendation of infected persons or presumptive cases to tertiary healthcare centers and other local health systems for follow-up and treatment.

## Context:

- **Project planning:** PHSAID in November 2020 set up a local organizing committee to coordinate Mbano Medical Outreach 2021. The bulk of our volunteers were derived from MPA; University of Port Harcourt (UNIPORT); Imo State University Owerri (IMSU); and School of Nursing Mbano Joint Hospital Mbano. We organized the first Mbano Carnival to be held at the same date and venue for the medical outreach. This strategy was aimed at bringing out the locals for the medical outreach. The strategy of the program is shown in Figure 2.
- **Project design:** Our medical team registered vital signs and conducted interviews to gain insight into experiences of health and illness of participants from communities in Mbano. Convenience sampling method was adopted for the project. And we used an interview guide which was continuously modified for different participants (See Appendix 1 for the interview guide). Demographic information: age, gender, education, marital status, and work were collected from the participants. TB, HIV, HBV and HCV tests were conducted, and data recorded. We ensured that participants give informed voluntary consent and we assured them the confidentiality of their test results. Alere HIV-1/2 Determine test strip, TB antibody rapid test strip, and hepatitis B and C surface antigen test strips were used in the testing of HIV, TB, and HBV/HCV respectively.
- **Project setting:** Mbano medical outreach 2021 was held in Mbano, Imo state, Nigeria. Mbano is a rural settlement whose major occupation is farming. It comprises of two local government areas: Ehime Mbano and Isiala Mbano with a total projected population of 329,667 people in 2006 census. Ehime Mbano and Isiala Mbano has 29 and 28 autonomous communities respectively. The communities were predominantly Christians and from the Igbo tribe. The language of communication in these communities are Igbo, English, and pidgin English.



**Figure 2:** Mbano Medical Outreach 2021 program strategy

## Material resources:

The total amount spent for the medical outreach is N1,703,900.00 (One Million naira and Seven hundred and Three thousand and nine hundred naira only), (See Table 2). Some of the volunteers came with their stethoscope, clinical thermometers, and glucometer. Funds are provided by PHSAID. We received a total of N34,000.00 (Thirty-four thousand naira only) being external funds from a person and two organizations (Table 3).

**Table 2: Material resources used for the medical outreach**

No.	Description of items	Quantity	Unit price	Total cost (Naira)
1	Equipment:			
	- BP apparatus	3	7,500	22,500
	- Stethoscope	10		Free
	- Clinical thermometer	5		Free
	- Glucometer	1		Free
2	Hand sanitizer			100,000
3	EDTA	1200	45	54,000
4	21G/23G needle	100/1500	30	48,000
5	HIV test strip (Determine)	5 boxes	15,000	75,000
6	HBsAg test strip	5 boxes	4,500	22,500
7	HcAg test strip	5 boxes	4,500	22,500
8	TB antibody rapid test strip	5 boxes	7,500	37,500
9	Disposable gloves	4 boxes	2,000	8,000
10	Face masks	20 boxes	2,400	48,000
11	Condom (Gold circle)	10 boxes	5,000	50,000
12	Cotton wool	2 packs	1,500	3,000
13	Ethanol	3 litres	1,800	5,400
14	Masking tape/markers			2,500
15	Tourniquets	10	1,000	10,000
16	T-shirts and caps	48	2,500	120,000
17	Drugs			150,000
18	Food, drinks and water			150,000
19	Cost of carnival + rents			775,000
	<b>Total:</b>			<b>1,703,900.00</b>

**Table 3: External support (funds received)**

No.	Person/Organization	Amount(Naira)
1	Mrs. Chidimma Anyanwu (BSN, MPH)	20,000
2	OAAADA	10,000
3	Owerri property Search	4,000
	<b>Total</b>	<b>34,000.00</b>

## Organizer/Partners/Volunteers:

The organization, PHSAID is the organizer of the first Mbano Carnival and Medical Outreach 2021 which took place on the 1<sup>st</sup> January 2021 at Ehime Mbano L.G.A. stadium, Imo State, Nigeria. Our partners include: VRU-UNIPORT, and MPA. Our medical team consist of physicians, public health specialists, pharmacists, nurses, medical laboratory scientists, psychologists, etc. (See Table 4). Other people and organization that supported the program were Mrs Chidimma Anyanwu, a trained nurse and doctoral research candidate at the University of Maryland, United States of America; OAAADA, a charitable organization that is against the use of alcohol and drug-related abuse; and Owerri Property Search, an Owerri-based real estate company. Our volunteers are mainly members of MPA.

## Mobilization and Training:

We mobilized most of our medical personnel for the outreach through MPA Facebook platform. The platform, as of February 27, 2021 has over 57,000 members that have a particular connection to Mbano. No volunteer or medical personnel was paid for his or her service rendered. PHSAID provided food and drinks during the program and during the training of volunteers. Training was two days starting from December 30 – 31, 2020.

Information was disseminated via community heads (Ndi Ezes), local radio stations, billboards, fliers, social media platforms, and through road parades with music and dancers. During the publicity, PHSAID promised to award prizes worth N200,000 (Two hundred thousand naira only) to some of the participants for the carnival (See Table 5). This was aimed to bring out large number of people out for the medical outreach, so that they will all be sensitized about infectious diseases, as well as to provide us the opportunity to conduct free tests on voluntary participants.

**Table 5: Prize to win for participating in the carnival**

	Category	Amount (Naira)
a	<b>Cultural dance group:</b>	
	1 <sup>st</sup> position	50,000
	2 <sup>nd</sup> position	30,000
	3 <sup>rd</sup> position	20,000
b	<b>Individual dance:</b>	
	1 <sup>st</sup> position	10,000
	2 <sup>nd</sup> position	5,000
	3 <sup>rd</sup> position	3,000
	4 <sup>th</sup> position	2,000
c	<b>Comedy &amp; Song</b>	
	1 <sup>st</sup> position	20,000
	2 <sup>nd</sup> position	10,000
	3 <sup>rd</sup> position	5,000
d	<b>Best dressed culture attire (individual)</b>	
	1 <sup>st</sup> position	10,000 (each for man and woman)
	2 <sup>nd</sup> position	5,000 (each for man and woman)
e	<b>Others</b>	
f	Giveaway prize	15,000 recharge cards plus other consolation prizes.
	<b>Total:</b>	<b>200,000.00</b>

**Table 4: Mbano Medical Outreach 2021 facilitators/volunteers**

No.	Organization	Names of workforce	Occupation	Area served
1	PHSAID/VRU-UNIPOINT	Prince Chinonso Nnadozie	Microbiologist/Intern, Global health	General coordinator/advocacy
2	PHSAID	Pharm. Collins O. Igweagwu	Pharmacist	In-charge of drugs & medical supplies
3	PHSAID	Sylva Chikwado Nnadozie	Nurse	Program officer/Physical examination of participants
4	PHSAID	Prof. Emeka Jude Okereke	Lecturer (Finance)	Assessment manager
5				
6	VRU - UNIPOINT	Dr. Iheanyi O. Okonko	Lecturer/Virologist	Representative of VRU-UNIPOINT; secures Ethical approval
7	VRU - UNIPOINT	Onyemauche Nwokorie	Computer scientist	Head, technical unit
8	Invited	Dr. Uche Ewelike	Physician/Public health economist	Keynote speaker: "The youths and sexual reproductive health, the dangers of infectious diseases on economic growth and development"
9	Invited	Dr Daniel Egbule	TB/HIV Public health specialist	Physical examination of participants
10	Invited	Ifeanyi Ahanihu (MC Aboki na asu Igbo)	Magic FM radio presenter	MC/Comedian
11	Invited	Okeagu Victor (Kentalker)	MC	MC/Comedian
12	MPA	Obi Stanley		Representative of MPA
13	MPA	Ewelike Austin	Psychologist	Head, Mbano Carnival & Medical Outreach, 2021
14	MPA	Austine Okoro		Secretary, Mbano Carnival & Medical Outreach, 2021; in-charge of media/publicity
15	MPA	Dr Darlington Anaele	Medical laboratory scientist	Sub-committee Head, Mbano Medical team
16	MPA	Egwuzoro Bethina Onyedikachi	Medical laboratory scientist	Advocacy/Counselling
17	MPA	Iwundu Maria Chidera	-	Counselling
18	MPA	Mbachu Adanna Maria-Assumpta	Nurse	Counselling
19	MPA	Onuoha Emmanuel	Nurse	Counselling
20	MPA	Okeke Angela	Biologist	Counselling
21	MPA	Anaele Oluchukwu	Biochemist/TB specialist	Physical examination of participants
22	MPA	Onuoha Justina	Nurse	TB, HIV, HBV, HCV testing
23	MPA	Chiamaka Egeonu	Nurse	TB, HIV, HBV, HCV testing
24	MPA	Osuji Angel Ngozi	Nurse	TB, HIV, HBV, HCV testing
25	MPA	Eke Onyeka J.	Nurse	TB, HIV, HBV, HCV testing

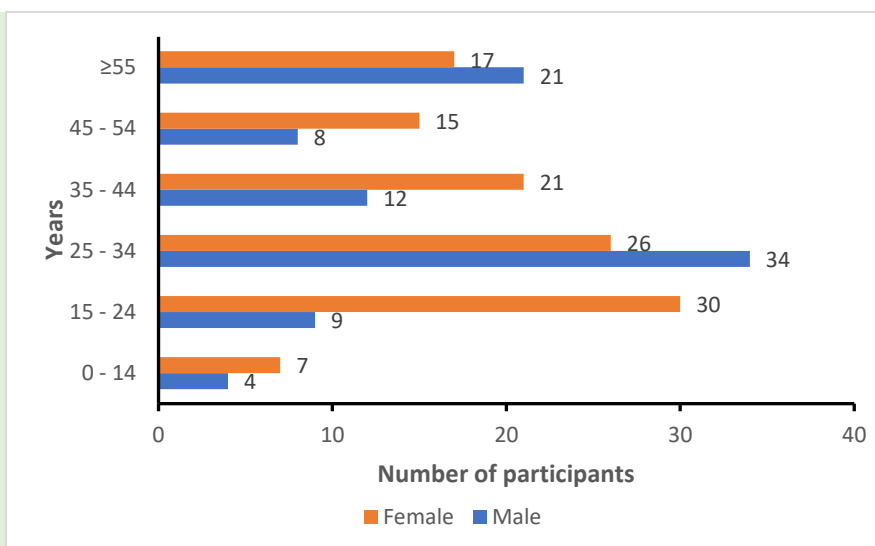
26	MPA	Ogoke Chinelor Dorcas	Medical laboratory scientist	TB, HIV, HBV, HCV testing
27	MPA	Ogoke Madonna Chizoba	Medical laboratory scientist	TB, HIV, HBV, HCV testing
28	MPA	Anyanwu Faustina Chigbonkpa	Medical laboratory scientist	TB, HIV, HBV, HCV testing
29	MPA	Ogueri Trinitas Ozioma	Medical laboratory scientist	TB, HIV, HBV, HCV testing
30	MPA	Ndubuisi Maryjane Uchechi	Nurse	TB, HIV, HBV, HCV testing
31	MPA	Asonye Chisom	-	TB, HIV, HBV, HCV testing
32	MPA	Rosemary Ezeala	Medical laboratory scientist	TB, HIV, HBV, HCV testing
33	MPA	Durugbo Uzochukwu	Mechanical Engineer	Head, Transport sub-committee
34	MPA	Festus Uzoamaka Ohaleta		Transport
35	MPA	Ejelonu Chukwudi		Transport
36	MPA	Nwamara Ozioma		Head, Entertainment sub-committee
37	MPA	Chukwuma Daniel Ebuka	Comedian	Entertainment
38	MPA	Nwoke Faith Ngozi	Accountant	Entertainment
39	MPA	Akuchi Uhah	student	Media/publicity
40	MPA	Uba Immaculata Ozioma	Student	Media/publicity
41	MPA	Princess Confide Alex		Media/publicity
42	MPA	Victoria Ajaero	Student	Responsible for hiring of chairs, tables, canopies, and decoration.
43	MPA	Nwokenkwo Chigozie		Clerical support
44	MPA	Diala Nkem	Designer	Head, food & drinks
45	MPA	Angela Chiamaka Onugha	Caterer	Food & drinks
46	MPA	Owuamanam Chioma Felistance	Nurse	Food & drinks
47	MPA	Sunday Onugha	Bus driver	Food & drinks
48	MPA	George N. Duru	Criminologist	Head, Protocol/security
49	MPA	Tochukwu Nzeh	Engineer	Protocol/security
50	MPA	Emmanuel Faith	Teacher	Protocol/security

## Outcome of Medical Outreach:

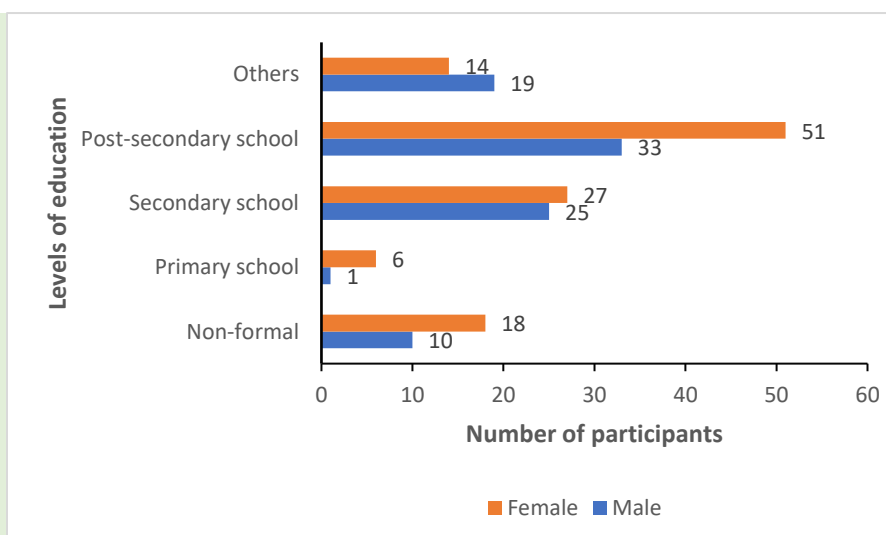
The PHSAID and its partners brought together more than 720 people from 57 communities in both Ehime and Isiala Mbano L.G.As of Imo State, Nigeria. A total of 204 participants were screened for TB, HIV, HBV and HCB. They were counselled and those that showed positive results including presumptive cases were referred to St. Mary Joint Hospital Mbano, and FMC Owerri for treatment and/or further tests. Participants received free medical supplies including drugs, condoms and facemasks. All the people that came to the venue were educated about infectious diseases (TB, HIV, HBV, and HCV), its mode of transmission, prevention, and treatment; coinfection; drug resistance; drug abuse; implication of self-medication, and importance of treatment adherence. Our Keynote speaker, Dr. Uche Ewelike, a physician and public health economist took time to educate people on “The youths and sexual reproductive health, and the dangers of infectious diseases on economic growth and development” (See Appendix 2).

## Demographic information:

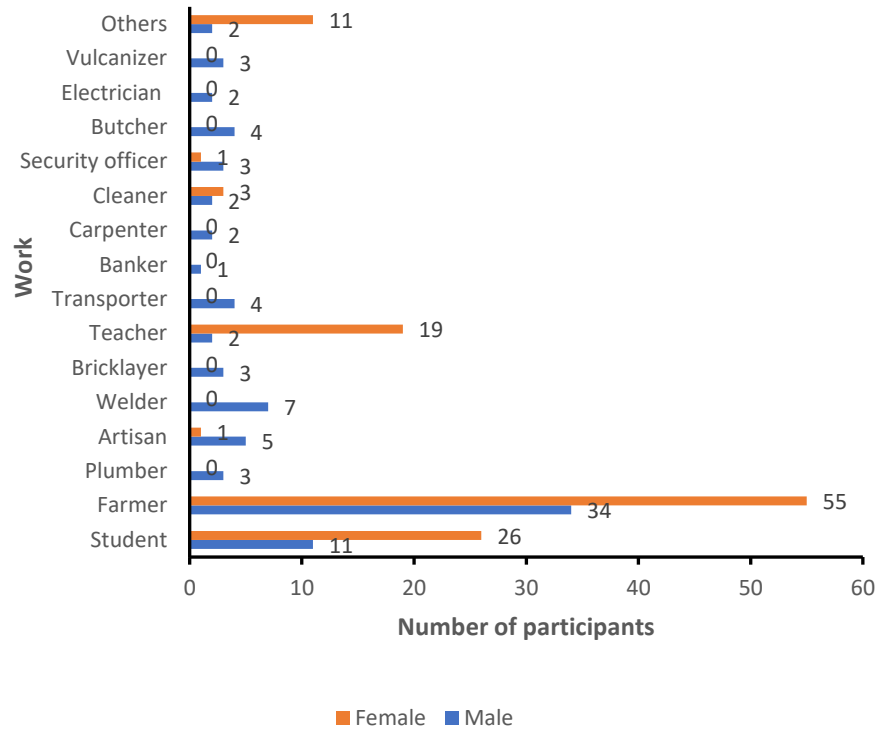
a). **Gender:** The ratio of male to female who participated in the screening program was 22/29. The total number of males were 88 (43.1%), and the females were 116 (56.9%). A description of the gender distribution among the age groups, educational levels, work, and marital status are shown in Figure 3 - 6 respectively.



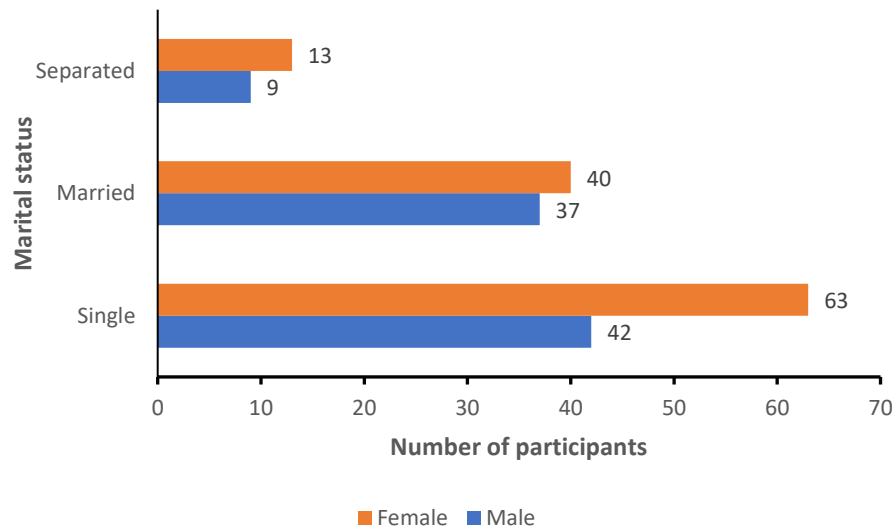
**Figure 3:** Gender distribution of participants among age groups



**Figure 4:** Gender distribution of participants according to educational level

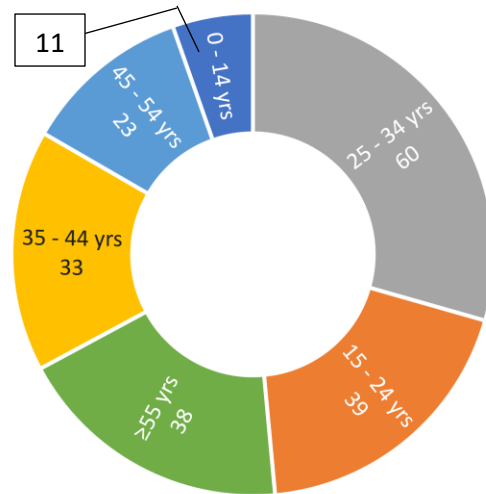


**Figure 5:** Gender distribution of participants according to occupation



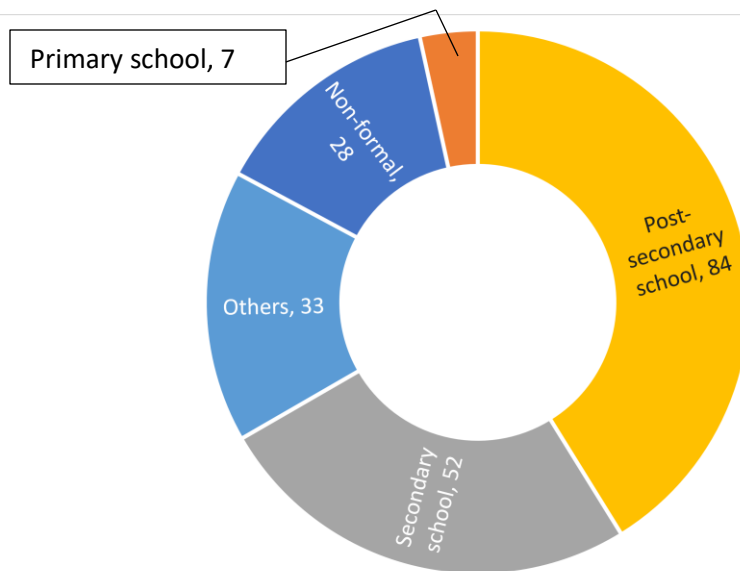
**Figure 6:** Gender distribution of participants according to marital status

**b). Age:** The majority, 60 (29.4%) of 204 participants were in the age group 25 to 34, and the least, 11 (5.4%) were not more than 14 years of age (Figure 7).



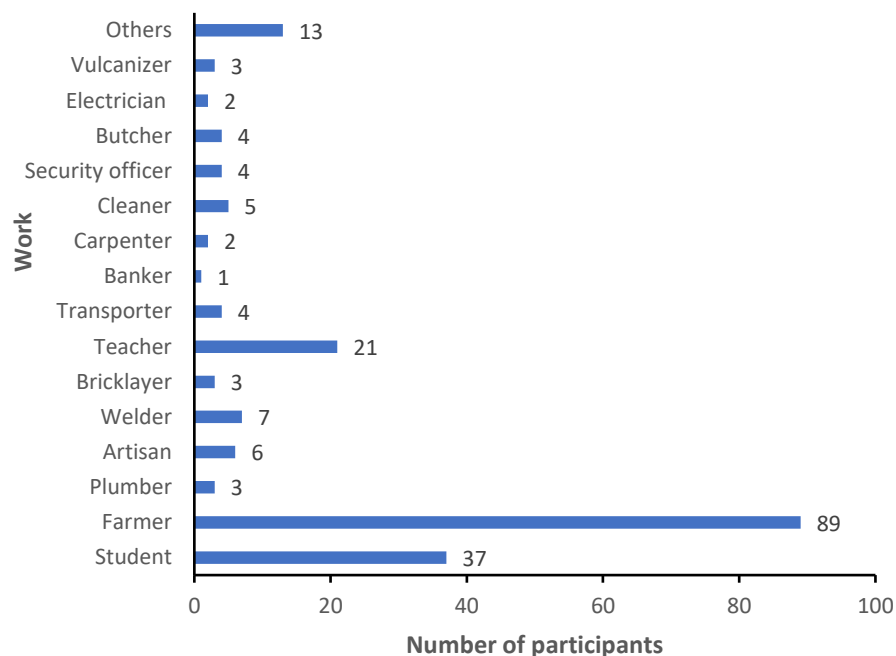
**Figure 7:** Age distribution of participants

**c). Education:** Eighty four (41.2%) of 204 participants were either currently attending post-secondary studies or completed post-secondary school; while 52 (25.5%), 28 (13.7%) and 7 (3.4%) have only secondary school education, non-formal education, and primary school education respectively (Figure 8).



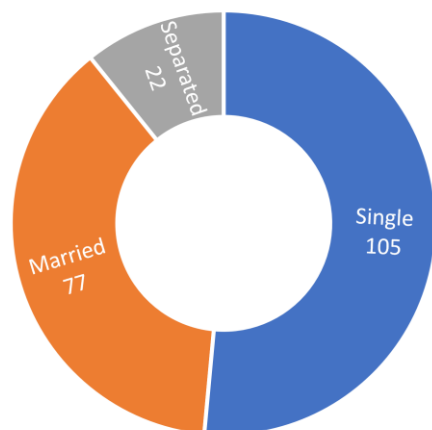
**Figure 8:** Distribution of participants according to their education

**d). Work:** When asked about their occupation, the majority 89 (43.6%) of 204 participants said that their occupation is farming, while 37 (18.1%) said that they were students (Figure 9). A total of 21 (10.3%) participants were teachers, 7 (3.4%) were welders, and 6 (2.9%) were artisans. Cleaners 5(2.5%), transporters 4 (2%), security officers 4 (2%), butchers 4 (2%), plumbers 3 (1.5%), bricklayers 3 (1.5%), vulcanizers 3 (1.5%), carpenters 2 (0.98%), electrician 2 (0.98%), and many other occupations 16 (6.4%) were among the participants tested.



**Figure 9:** Distribution of participants according to their occupation

**e). Marital status:** Over half of the participants 105 (51.5%) were single, 77 (37.7%) were married and 22 (10.8%) were separated (Figure 10).



**Figure 10:** Distribution of participants according to their marital status

## Sexual history:

A total of 57/204 (27.9%) unmarried (single and separated) participants said that they were currently having unprotected sex with a single partner, while 31 (15.2%) unmarried participants have protected sex with a single partner. Nineteen (9.3%) participants said that they were currently having protected sex with multiple partners, while 20 (9.8%) have unprotected sex with multiple partners. The number of married participants who said that they were currently having unprotected sex with someone who is not their spouse was 6/77 (7.8%). In summary, a total of 83 participants, as of the time and date of medical outreach, were currently having unprotected sex with someone they are not married to. In the last 12 months, a total of 109 (53.4%) participants have had unprotected sex with someone who is not their spouse. This represents 23.9% reduction of participants that had unprotected sex from the past 12 months.

## History of drug use

Approximately 39.8% (35/88) of the total male participants are currently using drugs such as Indian hemp (cannabis), heroin, tobacco, and morphine. Non-medical use of prescription opioids, particularly tramadol and codeine were commonly used by some of the participants. There was no record of a female involved in drug abuse.

## History of infection and treatment:

Results of the interview showed that a total of 12 (5.9%) Of 204 participants know their TB, HIV and hepatitis status. Out of this number, 3 (1.5%), 0 (0.0%), 0 (0.0%), and 1(0.49%) were positive for purified protein derivative (PPD), HIV, HBV, and HCV status respectively. The TB and HCV positive patients were already receiving treatment at FMC, Owerri. They were healthy and had no symptoms. Further inquiries showed that 32 (15.7%) participants had history of prior TB treatment, out of which 10/32 completed and adhered to treatment, 8/10 were cured, and 2/10 are currently retreatment cases. Desirous to treat TB, 12/32 participants said that they used to take traditional medicine including herbs and native concoctions. However, when asked if they get better after taking these locally made concoctions, etc. each participant said 'No'.

According to some of the participants we interviewed:

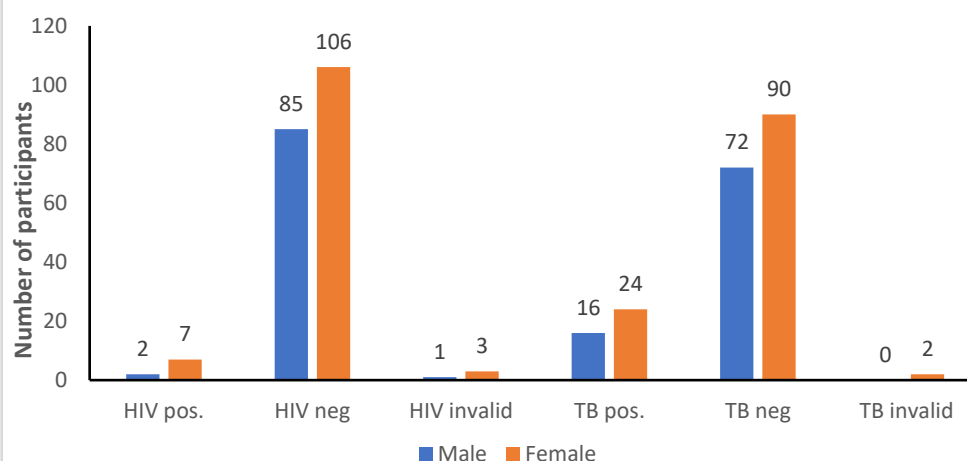
*"At my age, I don't know this [sighs], We are not well informed about most infectious diseases that's why we take herbs and other mixtures to treat ailments. I went to the hospital at headquarter, I was told I am suffering from tuberculosis, and I was giving some drugs to take. After about 3 weeks, I get better and I stopped taking the drugs. Before you know it, my case is worst than my previous condition. I have been going in and out of hospitals, but still no cure. I learnt that you people are coming today for medical outreach, I then said I must come to get cured of this illness"* (PHSAID\_2021-76; a male, married, aged 34 years, Farmer).

*"I am a student and my parents are late, I am left alone to take care of myself, no family or government support, nothing from anywhere! I sale groundnuts to survive and pay my school fees. In the hostel where I live, we are 8 students living in one room, in fact, the situation of the place is horrible, it is not something we talk about. Sometimes, in 2018 I developed serious cough which later stopped after I took some drugs I bought from a pharmacy store. Fast forward to 2020, the cough came back, and I visited a private clinic in Owerri, they did some test on me and told me that I have TB. Since then, I do not have money to continue paying for hospital bills, I need help, please!" (PHSAID\_2021-156; a female, single, aged 26 years, student).*

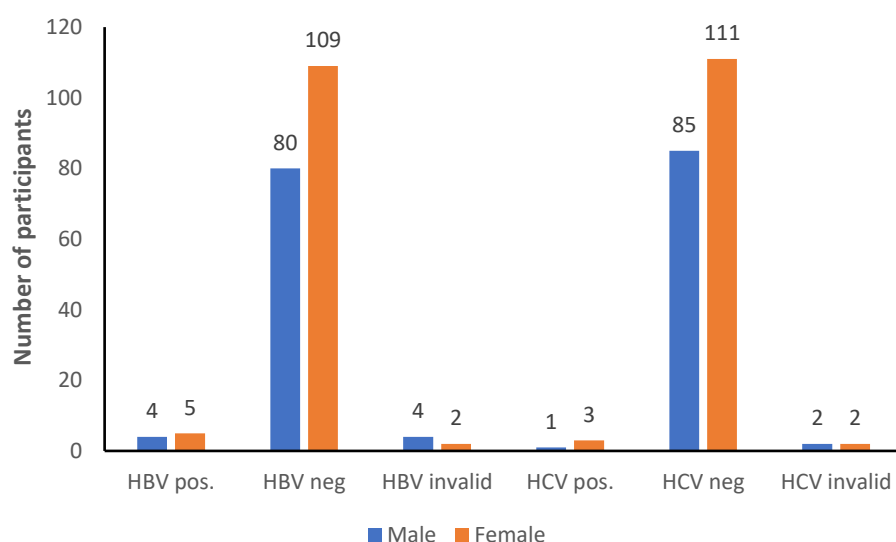
Our findings also showed that 25/204 (12.3%) participants have had contact with a person who has an active TB, and 89/204 (43.6%) participants do not know whether they had contact with someone with TB, HIV or hepatitis. Fifty-two (25.5%) of the participants have traveled to or emigrated from an area where these diseases are endemic. None of the participants is homeless or facing incarceration – they all have shelters and not confined in prison.

## Results of tests: TB, HIV, HBV and HCV

We tested a total of 204 participants for TB, HIV, HBV, and HCV. There were 9 people living with HIV (PLWHIV), 2(0.98%) males and 7(3.4%) females out of the total number of people that participated in the screening (Figure 11). Forty (19.6%) participants tested positive for TB. We assumed that these number of infected persons were presumptive cases since TB antibody rapid test is not the main recommended test for TB screening by WHO. A total of 9(4.4%) and 4(2%) participants were infected with HBV and HCV respectively (Figure 12). TB-, HBV-, and HCV-related symptoms were reported in 15(7.4%), 6(2.9%), and 3(1.5%) of screened encounters respectively, while in 1(0.49%) of PLWHIV, symptoms were reported. TB and HIV infected persons were referred to FMC, Owerri for further diagnosis and treatment, while those that tested positive to hepatitis were referred to St Mary Hospital Mbano for treatment.



**Figure 11:** Prevalence of HIV and TB among screened participants at Mbano Medical Outreach 2021



**Figure 12:** Prevalence of hepatitis (HBV and HCV) among screened participants at Mbano Medical Outreach 2021

## Challenges encountered:

During Mbano Medical Outreach 2021, the challenges we encountered were as follows:

1. **Limited time:** There was limited time for planning. This affected publicity and supports.
2. **Low turnout of communities:** the organizing committee wrote letters to all stakeholders in Mbano inviting them to the program. Traditional rulers of various communities were told to inform their people about the free medical outreach and carnival. The means of information dissemination in most communities in Mbano is through Town crier. We found out that most of the rulers did not engage the services of these Town criers maybe due to the finance required to pay for these services. COVID-19 pandemic may be another issue that prevented people from coming out.
3. Lack of fund for referrals such as transportation.
4. COVID-19 pandemic: Despite the strict use of facemask and compliance of COVID-19 rules, medical personnel had to be more careful in the handling of participants.

## Recommendations:

1. Adequate time and planning are very necessary to have a very successful output for any medical outreach. We believe that planning for the next program will begin on time, at least one year before.
2. Collaboration with local partners within the target population should be strengthened.
3. The States and local governments' TB, HIV, and hepatitis control program and coordination should be overhauled.
4. There is need to build a sustainable program through frequent trips and long-term partnerships.
5. Periodical evaluation of the program is very necessary to ensure that community needs are understood and met.
6. Government and donors should support community health centers to address the challenges of primary health. We found out that health centers lack medical equipment to carry out simple tests and they lack essential drugs and medical consumables.
7. More funds are needed.

## Conclusions:

Mbano Medical Outreach 2021 affords us the opportunity to reach rural communities in Mbano, Imo State – Nigeria who are facing challenges in seeking and accessing quality healthcare at fixed health center sites. The outreach minimizes the burden of transportation barriers and allows individuals and communities to easily access healthcare. We were able to test 204 participants for TB, HIV, HBV and HCV. Identified positive cases were referred to FMC, Owerri and St. Mary Joint Hospital Mbano for further treatment and/or tests. A successful partnership will empower the communities and minimize, if not eliminate the idea that they are mere recipients of aid. Therefore, there is need to build a sustainable program through frequent visits and long-term partnerships.

## Ethical Approval:

This project with reference number UPH/CREMAD/REC/MM72/100 was approved by the Research Ethics Committee (REC), University of Port Harcourt, Rivers State, Nigeria.

### Contact:

**Public Health Society Against Infectious Diseases (PHSAID)**

No. 5 Pipeline Close, Beside Lonestar Drilling Company, Elimgbu, Port Harcourt, Rivers State, Nigeria.

[societyAid.org@gmail.com](mailto:societyAid.org@gmail.com); +234 (0) 8061104979

## Appendix 1: Mbano Medical Outreach 2021 interview guide

	Guide		YES	NO
1	Check vital signs of all participants			
2	Tuberculosis (TB)			
a	<b>History: The following factors increase the likelihood that a patient will have TB:</b>			
	<ul style="list-style-type: none"> <li>HIV infection</li> </ul>			
	<ul style="list-style-type: none"> <li>History of a positive purified protein derivative (PPD) test result</li> </ul>			
	<ul style="list-style-type: none"> <li>History of prior TB treatment</li> </ul>	(i) Has the person being diagnosed with TB in the past but were not treated		
		(ii) Is he/she taking any medicine, both prescription and nonprescription, including herbs and natural products.		
	<ul style="list-style-type: none"> <li>TB exposure/contact with a person who has an active TB</li> </ul>			
	<ul style="list-style-type: none"> <li>Travel to or emigration from an area where TB is endemic</li> </ul>			
	<ul style="list-style-type: none"> <li>Homelessness, shelter-dwelling, incarceration</li> </ul>			
	<ul style="list-style-type: none"> <li>Occupation</li> </ul>			
	<ul style="list-style-type: none"> <li>Others</li> </ul>			
b	<b>Classic clinical features associated with active pulmonary TB are as follows:</b>			
	<ul style="list-style-type: none"> <li>Cough (more than 2-3 weeks)</li> </ul>			
	<ul style="list-style-type: none"> <li>Weight loss/anorexia</li> </ul>			
	<ul style="list-style-type: none"> <li>Fever</li> </ul>			
	<ul style="list-style-type: none"> <li>Loss of appetite</li> </ul>			
	<ul style="list-style-type: none"> <li>Night sweats</li> </ul>			
	<ul style="list-style-type: none"> <li>Hemoptysis (coughing out blood)</li> </ul>			
	<ul style="list-style-type: none"> <li>Chest pain</li> </ul>			
	<ul style="list-style-type: none"> <li>Fatigue</li> </ul>			
c	<b>Symptoms of tuberculous meningitis may include the following:</b>			
	<ul style="list-style-type: none"> <li>Headache that has been either intermittent or persistent for 2-3 weeks</li> </ul>			
	<ul style="list-style-type: none"> <li>Subtle mental status changes that may progress to coma over a period of days to weeks</li> </ul>			
	<ul style="list-style-type: none"> <li>Low-grade or absent fever</li> </ul>			
d	<b>Symptoms of skeletal TB may include the following:</b>			
	<ul style="list-style-type: none"> <li>Back pain or stiffness</li> </ul>			

	<ul style="list-style-type: none"> <li>Lower-extremity paralysis, in as many as half of patients with undiagnosed Pott disease</li> </ul>			
	<ul style="list-style-type: none"> <li>Tuberculous arthritis, usually involving only 1 joint (most often the hip or knee, followed by the ankle, elbow, wrist, and shoulder)</li> </ul>			
e	<b>Symptoms of genitourinary TB may include the following:</b>			
	<ul style="list-style-type: none"> <li>Flank pain</li> </ul>			
	<ul style="list-style-type: none"> <li>Dysuria</li> </ul>			
	<ul style="list-style-type: none"> <li>Frequent urination</li> </ul>			
	<ul style="list-style-type: none"> <li>In men, a painful scrotal mass, prostatitis, orchitis, or epididymitis</li> </ul>			
	<ul style="list-style-type: none"> <li>In women, symptoms mimicking pelvic inflammatory disease</li> </ul>			
f	<b>Symptoms of gastrointestinal TB are referable to the infected site and may include the following:</b>			
	<ul style="list-style-type: none"> <li>Nonhealing ulcers of the mouth or anus</li> </ul>			
	<ul style="list-style-type: none"> <li>Difficulty swallowing (with esophageal disease)</li> </ul>			
	<ul style="list-style-type: none"> <li>Abdominal pain mimicking peptic ulcer disease (with gastric or duodenal infection)</li> </ul>			
	<ul style="list-style-type: none"> <li>Malabsorption (with infection of the small intestine)</li> </ul>			
	<ul style="list-style-type: none"> <li>Pain, diarrhea, or hematochezia (with infection of the colon)</li> </ul>			
g	<b>Signs of extrapulmonary TB differ according to the tissues involved and may include the following:</b>			
	<ul style="list-style-type: none"> <li>Convulsion</li> </ul>			
	<ul style="list-style-type: none"> <li>Coma</li> </ul>			
	<ul style="list-style-type: none"> <li>Neurologic deficit</li> </ul>			
	<ul style="list-style-type: none"> <li>Chorioretinitis</li> </ul>			
	<ul style="list-style-type: none"> <li>Lymphadenopathy</li> </ul>			
	<ul style="list-style-type: none"> <li>Cutaneous lesions</li> </ul>			
h	<b>NOTE 1:</b> Physical examination findings associated with TB depend on the organs involved. Patients with pulmonary TB may have the following:			
	<ul style="list-style-type: none"> <li>Abnormal breath sounds, especially over the upper lobes or involved areas</li> </ul>			
	<ul style="list-style-type: none"> <li>Rales or bronchial breath signs, indicating lung consolidation</li> </ul>			

i	<b>NOTE 2:</b> The absence of any significant physical findings does not exclude active TB.			
	<ul style="list-style-type: none"> <li>Classic symptoms are often absent in high risk patients, particularly those who are immunocompromised or elderly.</li> </ul>			
	<ul style="list-style-type: none"> <li>Symptoms of acute HIV infection are nonspecific (e.g. fever, malaise, myalgias, rash), making misdiagnosis common.</li> </ul>			
3	<b>HIV/AIDS</b>			
a	<b>Sign and symptoms:</b>			
	<ul style="list-style-type: none"> <li>Weight loss</li> </ul>			
	<ul style="list-style-type: none"> <li>Recurring fever/profuse night sweat</li> </ul>			
	<ul style="list-style-type: none"> <li>Lymph nodes in the armpit, groin or neck</li> </ul>			
	<ul style="list-style-type: none"> <li>Sores on the mouth, anus or genitals</li> </ul>			
	<ul style="list-style-type: none"> <li>Diarrhea that last for more than one week</li> </ul>			
	<ul style="list-style-type: none"> <li>Pains in the joint</li> </ul>			
	<ul style="list-style-type: none"> <li>Fatigue</li> </ul>			
	<ul style="list-style-type: none"> <li>Headache</li> </ul>			
	<ul style="list-style-type: none"> <li>Oral thrush</li> </ul>			
	<ul style="list-style-type: none"> <li>Others</li> </ul>			
b	<b>Sexual history</b>			
	Find out whether participants are having or have had unprotected sex before, in the last 12 months, etc.			
	Be certain to explore for more specific risk factors, such as having one or multiple sex partners, drug use, etc.			
4	<b>Hepatitis</b>			
	Signs and symptoms			
	<ul style="list-style-type: none"> <li>Yellow eyes and/or skin</li> </ul>			
	<ul style="list-style-type: none"> <li>Abdominal pain</li> </ul>			
	<ul style="list-style-type: none"> <li>Nausea and vomiting</li> </ul>			
	<ul style="list-style-type: none"> <li>Light coloured feaces</li> </ul>			
	<ul style="list-style-type: none"> <li>Fever</li> </ul>			
	<ul style="list-style-type: none"> <li>Joint pain</li> </ul>			
	<ul style="list-style-type: none"> <li>Fatigue</li> </ul>			

**THE YOUTHS AND SEXUAL REPRODUCTIVE HEALTH, THE  
DANGERS OF INFECTIOUS DISEASES ON ECONOMIC GROWTH AND  
DEVELOPMENT: MBANO IN FOCUS. A PAPER PRESENTED AT THE  
FIRST MBANO CARNIVAL & MEDICAL OUTREACH, ORGANIZED BY  
SOCIETY AGAINST INFECTIOUS DISEASES IN COLLABORATION  
WITH MBANO PEOPLE'S ASSEMBLY. JANUARY 1, 2021 AT EHIME  
MBANO LOCAL GOVERNMENT HEADQUARTERS**

By

**Uchenna Ewelike; MBBCh, MPH, MBA, MIAD, FRSPH (UK), PhD**  
Senior Public Health Physician & Health Economist, Abuja-Nigeria

**1) PROTOCOL**

It is with great pleasure and utmost nostalgia that I stand before you brothers and sisters at this very auspicious event to discuss health and its importance to the economic growth and development of our people which by the grace of God is my area of comparative advantage as a practicing Public Health Physician & Health Economist.

Honestly, I feel very elated basically for two reasons; one is this event being the first of its kind and having the opportunity to speak to my people on this topic which is part of what I do for a living, second is the retrospective evaluation and a journey on a not too far memory lane of my growing up in this community decades ago. These two reasons keep my hope alive that with hard work and God's favour, there is no legitimate goal set as a young person you may not be able to achieve to a reasonable height if you are focused. Just get yourself convinced and reassured that you are the next big thing that will come from Mbano. On this note, let me congratulate the organizers of this well thought out event and assure you of my commitment to the success of this high impact intervention that has the capacity to save lives and improve the wellbeing of Mbano people. I am happy that the organizers understand that the 1989 bifurcation of old Mbano into Isiala and Ehime Mbano LGAs was just for administrative convenience as Mbano remains Mbano maka Ano wu- otu. Our strength, greatness and uniqueness remains as one Mbano people. Nobody can divide Ndi Mbano.

## **2) HEALTH AND DEVELOPMENT**

Ladies and Gentlemen, health as you all know is a complex dynamics and means many things for many people but our discussions today will leverage on the definition set aside by World Health Organization (WHO) in 1948 that stated that 'Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease and infirmity'. This therefore means that your physical, social and mental state are critical in achieving your health targets and for us to assume one to be healthy, these factors must have been put into serious considerations. Thus health is better looked at from a holistic perspective.

There is a strong positive correlation between health and economic growth and development. This has been established by different evidence based scientific papers that supports the popular saying that 'health is wealth'. The recent global pandemic of COVID 19 has also reaffirmed the importance of health in economic growth and development. The COVID-19 pandemic has spread with alarming speed, infecting millions and bringing economic activity to a near-standstill as countries imposed tight restrictions on movement to halt the spread of the virus. As it is estimated, the world lost about 5.2% of its GDP to this virus. In Nigeria, our Country lost about 34.1% of her GDP which amounts to about \$16billion during the lockdown alone. Therefore, considering options, behavioral changes and adaptations that will contribute to good health especially for the most productive population (the youths) will be seen as strategic, impact driven and right thinking.

## **3) SEXUAL AND REPRODUCTIVE HEALTH**

Sexual and reproductive health is seen by many as a good tool to ensure that young population remains healthy and contribute to economic growth and development of any community and nation. It is defined as a state of complete physical, mental and social well-being in all matters relating to the reproductive system. It implies that people are able to have a satisfying and safe sex life, the capability to reproduce, and the freedom to decide if, when, and how often to do so. Before now, many people find it difficult to discuss this topic with young people citing morality as the main reason. However, today's evidence and thinking has proven that the cohort that needs this information more is the young people. There is no better time to discuss this topic than now where all have returned home filled with joy and

happiness to meet new friends and reunite with old one with high possibilities of experimenting, acquiring wrong knowledge and risky behaviour. So these discussions will help you to plan better and live a healthy and productive live thereafter. This will in turn help in the development of Mbano and its people through many healthy minds.

There are eight components of sexual and reproductive health, which are;

1. Reproductive health
2. Adolescent health
3. Maternal Health
4. Contraception
5. Sexually transmitted infection
6. Abortion
7. Female genital mutilation
8. Child and forced marriage

Reproductive health is not just about sex. It is part of a holistic health program starting from early age teaching values and understanding the anatomy and physiology of their bodies. This education continues when they are young adults to have safe and acceptable access to methods of fertility regulation of their choice and the right to have access to appropriate healthcare services that enables women to go safely through pregnancy and childbirth as stated in the WHO definition above.

To maintain one's sexual and reproductive health, people need access to accurate information on the safe, effective, affordable and acceptable contraception method of their choice. They must be informed and empowered to protect themselves from sexually transmitted infections such HIV I & II, HVB, HCV, Syphilis, Chlamydia, Gonorrhea etc , and when they decide to have children, women must have access to services that can help them have a fit pregnancy, safe delivery and healthy baby. Every individual has the right to make their own choices about their sexual and reproductive health. This should be supported by all of us, people in leadership positions and public health officers within our two LGAs.

The importance of sexual and reproductive health to Mbano people includes the following;

1. Promote and support positive, respectful, non-coercive and safe sexual relationships and reproductive choice (including planned, safe and healthy pregnancy and childbirth).
2. Improve knowledge and awareness of factors that affect the ability to conceive a child, and increase access to contemporary, safe and equitable fertility control services to enable people exercise their reproductive rights.
3. To prevent pregnancy in adolescent and STD's, our teenagers are getting information about healthy sexuality and procreation. However, they must get the right information from the right sources. This is part of what we are doing today.
4. To give the youths the opportunity to ask about their uncertainties and fears, thereby ensuring they do not get to hold on to wrong information.
5. We all know the unhealthy lifestyle choices we make when we're younger can impact our general health later in life. The same goes for reproductive health. Abortions can stop you from having children when you need them and STDs can stop you from your dreams if poorly managed.
6. One of the key issues that can be impacted by sexual and reproductive health is our fertility. Whilst many cases of infertility are unavoidable or simply unlucky, looking after your reproductive health will increase your chances of a healthy pregnancy.
7. Cost of treatment of poorly managed reproductive issues may not be affordable to the young people. This on its own is a major challenge. This therefore leaves the young people into sourcing for wrong and cheap treatment that may end up affecting them in life.
8. High chances of wrong treatment and complications which could lead to death or disability.
9. You could drop out of school for wrong choices or mistakes arising from sexual life. This will come with a lot of losses to the parents, guidance and the community as your chances of contributing better to the society with less education is weak.

#### **4) SEXUALLY TRANSMITTED INFECTIONS (STIs)**

It will not be fair to this paper if we do not bring out some highlights on the issues of STIs. We are in the era of ICT and Social Media where a lot of wrong information can be passed to the population without proper censoring especially on issues relating to sex and STIs. Sexually Transmitted Diseases are one of the biggest risk factors for our reproductive health, for both men and women especially the young people. If left untreated they can lead to infertility in men and women, temporary or permanent disability and even death.

The most common STIs includes Chlamydia, Gonorrhea, HBV, HCV, Syphilis, HIV I & II and they can have disastrous effects on our reproductive health, the good thing is that they are easily preventable than treated. For instance, diseases like HIV and HBV & BCV are harder to treat, but they are also easily avoided by practicing safe sex and appropriate vaccination as the case may be. I am sure many of you here do not know that as deadly as HBV, it has a vaccine which when taken for the three doses protects you from the very expensive diseases with high virulence on the liver.

The best way to prevent STIs is abstinence as this has been proven by all national and international standards and protocols to be of high efficacy, however, where abstinence is not practicable; the use of condoms should be supported. Condoms either male or female types are cost effective and safe when properly and consistently used. Being faithful to one uninfected sexual partner is also very critical in preventing STIs. Ensuring that you receive safe and diseases free blood during blood transmission is another important prevention strategy. As at now you have known it is wrong to share sharp objects and syringes especially the injection drug users/ abusers. Sometimes, it is important to pause and ask yourself some important questions. Which one is better? If you cannot abstain from sex for the unmarried and remain faithful to one sexual partner for the married which has been proven to be the best in diseases prevention, why not use condoms that cost N100 for a packet of three pieces or spend about N900, 000.00 yearly for treatment of HVB/HCV, or be on live treatment with antiretroviral for HIV I & II, or suffer the huge cost of treating infertility when you actually need children?

## **5) THE ROLE OF GOVERNMENT**

The rights to sexual and reproductive health put so many responsibilities on government. Public health is the responsibility of the people and government; therefore all stakeholders must do their work to ensure a healthy population.

1. Ensure there is an enabling environment that will support the practice of good sexual and reproductive health.
2. Provide youths and adolescences reproductive health counselors who will guide young people on issues of sexuality and reproductive health.
3. Provide reproductive health clinics for young people across the two LGAs
4. Make available family planning commodities especially those used for emergency contraceptives.
5. Provide adequate and correct information to young people at schools, markets, churches, play grounds, seminars, workshops etc. This is critical because the children will finally learn about these concepts, so why not teach them through the right channels etc.
6. Encourage and support efforts like this which will have better impact to the society.
7. Ensure rights to sexual and reproductive health become a political issue and at the front burner with the needed political will.

## **6) RECOMMENDATIONS**

Dear brothers and sisters, as we have discussed in this paper, prevention of diseases are the most important tool we have in view of the present situation of our health systems within this environment. It is also glaring from this presentation that we can only contribute to the economic growth and development of Mbano when we are healthy and productive. It is also more cost effective to prevent most of the sexually transmitted diseases listed above. On this basis, I make the following recommendations to us, the state and the two local governments;

1. We must institute a viable and sustainable health system for our young people that will take care of their sexual and reproductive health needs. Health is a right and not a privilege.
2. The state and local governments in Mbano must ensure that family planning commodities and access to basic laboratory investigations and treatment for sexually transmitted diseases are made available to the people.

3. Young people should adopt behavioral changes that will position them to have good sexual and reproductive health. As the saying goes, **“prevention is better than cure”**
4. Information on sexual and reproductive health should be made available to the people, through the schools, churches, seminars, workshops and during community meetings.
5. Finally, the people should understand that being healthy and living healthy is not a choice to contemplate but a position we must adopt and it will in turn improve our economic power and our ability to be great people. We need healthy youths to make Mbano great and that should be our focus in our daily activities.

Let me once again congratulate you all for being part of this maiden event and wish you a great 2021 and beyond. God bless Mbano and its people.

Thank you.