

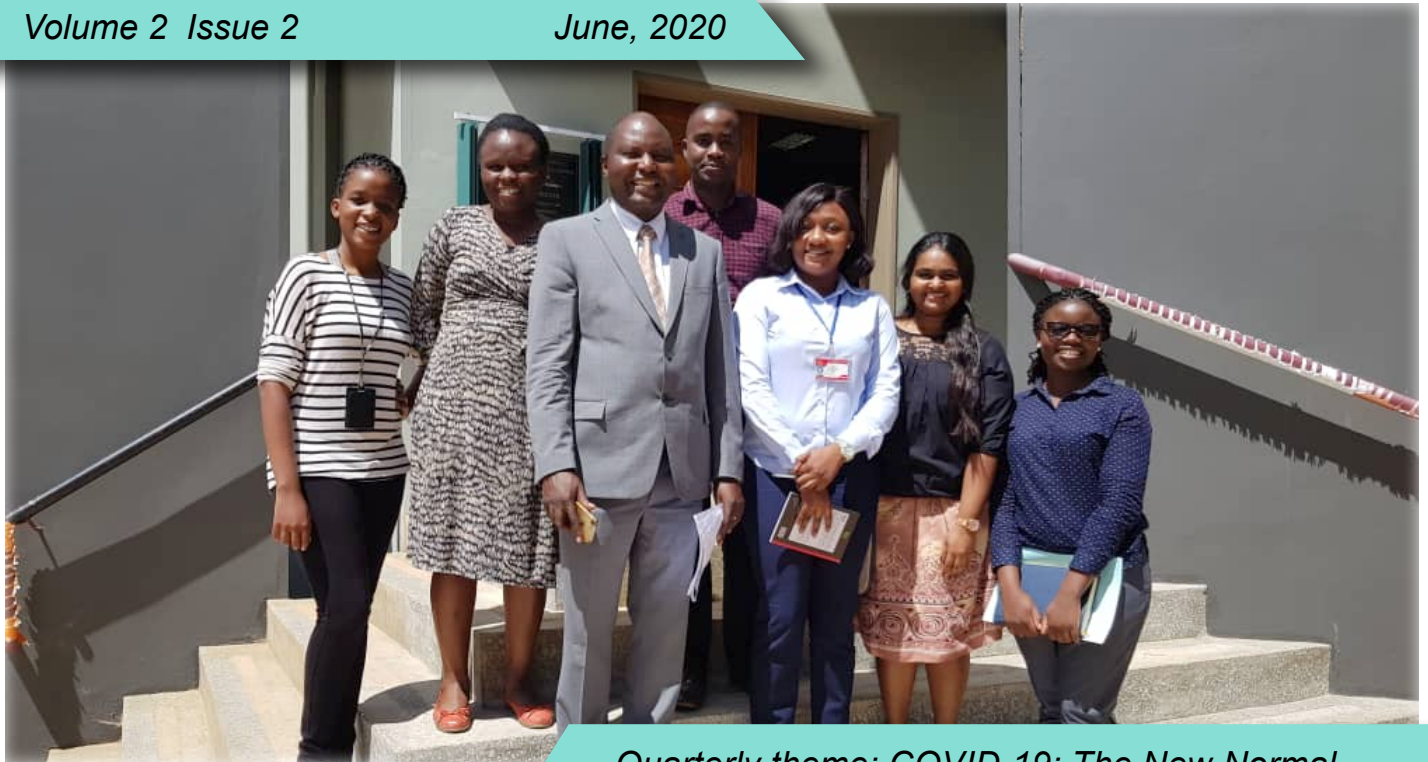


# YES NEWS

A NEWSLETTER FOR THE YOUNG EMERGING SCIENTISTS

Volume 2 Issue 2

June, 2020



Quarterly theme: COVID-19: The New Normal

## Table of Contents

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## Word from the CEO

Dr Mwansa Ketty Lubeya



The COVID-19 pandemic has sent shock waves to all corners of the globe. Almost six months since the announcements about strange pneumonia that started as a confined disease but rapidly spread to affect the whole world. The term “COVID-19” is now a household name known by the elderly and the young.

The effect that COVID-19 has had on our lives will leave terrible scars in our lives, that is for those who will live beyond the pandemic. Africa had been slow with the number of confirmed cases with different reasons being cited, with the most common one being lack of testing kits. Many people have lost loved ones, sometimes too many at a time. Not everyone is infected, but we are all affected. Businesses have shut down, and economies are crumbling, high demand on

health care services; you name it, “corona” has a hand in it! No one ever planned for this sort of calamity at the close of 2019, COVID-19 has been a significant blow to humanity. For scientists, this time now to think beyond what is known to try and salvage humankind from extinction. Scientists around the world are working round the clock to come up with a vaccine and supportive treatments for patients with SARS-CoV-2. Some are winning the battles others not, but the point is to keep trying. The whole world is waiting for that “light bulb moment.”

In this issue, we have packaged different literature that you will enjoy reading while in lockdown. There have been reports of escalating gender-based violence cases during the pandemic, and victims are finding it challenging to get help due to lockdowns. Psychological trauma is becoming more prevalent; hence we have shared some tips on how best you could cope with stress. People with comorbidities are predisposed to poorer outcomes thus, we have an article talking about hypertension. Additionally, Online learning is now trending you will be able to get some tips from this issue as you read on.

Enjoy reading and stay safe, take precautions to protect yourself and others from SARS-CoV-2.

To all Young Emerging Scientists across all fields of science in both private and government institutions, if you would like to share your work through the YES NEWS, we accept well written articles in the form of:

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## Clinical Trials Workshop

By Dr Mercy Monde Imakando



The clinical trials workshop was a capacity building workshop hosted by UNZA/ Vanderbilt Partnership for HIV-Nutrition Research Training (UVP) and the UNC-UNZA-Wits Partnership for Women's Health Research (UW) held from 3rd to February 5th, 2020. Both are National Institute of Health (NIH) funded programs aimed at building capacity for researchers in Lower Middle-Income Countries like Zambia, in partnership with Vanderbilt University and the University of North Carolina, respectively. Among the UW cohort faculty is our very own Dr. Ketty Lubeya, who is currently pursuing a Ph.D. at Wits University. YES Zambia, mentees were free to attend the workshop, and several did. It was a very educative and

motivating experience, also in that one could clearly see that mentorship in research is a continuous process, all through Doctoral and Post-doctoral studies. For those of us who attended, one clearly discerns that YES Zambia has a bright future, and we definitely look forward to hosting such programs in the near future.

Lessons were numerous and included a brief recap on the different types of study designs, that is, Observational and Analytical studies, with emphasis on Clinical Trials. A clinical trial is defined as a comparative, prospective experiment conducted in human or animal subjects. The World Health Organisation defines it as any study that prospectively assigns human participants or groups of humans to one or more health-related interventions to evaluate the effects on health outcomes. Interventions include; biological products, drugs, surgery, devices, and the like.

*Randomized Clinical Trials are the 'gold standard'*

The clinical trial process is classified into Phases. This is illustrated in the diagram below.

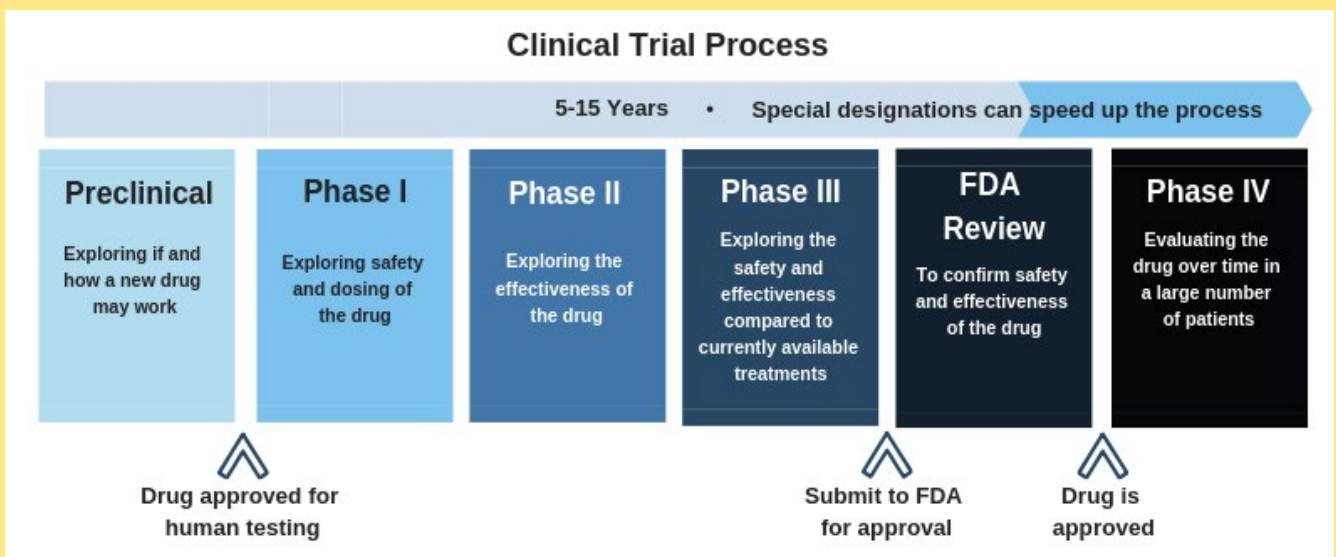


Image from <https://www.hepb.org/blog/phase-3-clinical-trials-opening-hepatitis-delta-patients/>

These are further classified into Single Treatment or Historical Controls, Non-randomized Concurrent Trials, and Randomized Clinical Trials. Of the three, the Randomized Clinical Trials are the 'gold standard' because this design tends to minimise bias and the effect of confounders. Some of the exciting terminologies learnt are listed below;

**1. Superiority clinical trial** which is a study that directly compares two treatments to see which of them achieves better results

**2. Non-inferiority clinical trial** defined as a clinical trial that shows that a new

treatment is equivalent to or at least not worse than the standard procedure

**3. Clinical equipoise** means there is genuine uncertainty in the expert medical community over whether a proposed new treatment will be beneficial.

In other sessions, Grant writing skills were discussed, and the Ph.D. faculty showcased current research that is taking place. Activities included visiting sites of ongoing clinical trials in Lusaka, like the ZAMBART offices and a Nutrition Lab at the University Teaching Hospital.

## Gender-Based Violence in the Wake of COVID-19 Pandemic

**By Namunji Matale; 6th Year Medical Student –  
University of Zambia, YES-Zambia Fellow**



The COVID-19 outbreak, whose initial epicenter was in the city of Wuhan, China, became alarming as transmissions outside of the Republic of China began skyrocketing. On March 11th, 2020, the World Health Organisation (WHO) declared COVID-19 a global pandemic. Several countries all over the globe put in effect lockdowns, travel restrictions as well as invoking strict bans on public gatherings, including funerals and weddings. Governments around the world delivered ‘Stay Home’ directives in a quest to curb transmission of the SARS-CoV-2 virus. However, these directives were given with the assumption that homes are a safe place to dwell, a

refuge, so to speak. Such directives did not factor in violence, especially gender-based violence (GBV) that occurs in the home.

By Early-April 2020, ninety countries were in lockdown. As movement restrictions took hold, different countries across the globe recorded a steady rise in cases of GBV according to a report by United Nations Women. It is safe to hypothesize that restricted movement and social distancing, in addition to pre-existing toxic social norms and gender inequalities, have facilitated the formation of an optimal environment for gender-based violence to occur, most especially in homes it already exists in. It is like having one pandemic within another; Pandemic Part 2.

In addition to movement and public gathering restrictions, other measures put in place to prevent transmission of COVID-19 both in Zambia and globally, include having non-essential employees work fewer hours, on rotatory basis or worse, some got laid off completely, in order to keep people at home. On the

one hand, that means lesser chances of contracting the SARS-CoV-2 virus. On the other hand, for a person living with an abusive figure, this means more time spent with the abuser. The word lockdown bears a whole new meaning as violent homes literally become a prison, a trap and a place of terror for people who experience GBV from others they live with.

Cases of GBV during the lockdown in Hubei Province of China had multiplied by three in comparison to the previous year in the same period and the same area. France alone recorded a 32% rise in GBV cases in the first week of its lockdown. A survey carried out amongst front liners based in New South Wales, Australia, reported a 40% increase in help requests with regards to violence. 2300 cases of GBV had been reported within just one week of the South African government putting a lockdown in effect.

Concerned Citizens for Justice and Human Rights, an NGO based in Kanyama of Lusaka, Zambia, equally received an increased number of cases of GBV being reported within the locality. Young Women Christian Association in Ndola in a recent interview with Times of Zambia newspaper, highlighted that they expect that with more cases of people being unemployed, the association

would have to attend to an overwhelming number cases of GBV, sheltering of abused women and children and many other concerns that affect families.

**“.....this means more time spent with the abuser....”**

Even prior to the COVID-19 pandemic, gender based violence has been and continues to be a great matter of public health concern. An analysis by the United Nations Population Fund (UNPF) revealed that 15million additional cases of GBV are to be expected for every three months of a lockdown. The analysis cited that this pandemic may cause a 33% reduction in progress and many efforts made towards ending gender based violence by the year 2030 (the deadline for achieving Sustainable Development Goals).

The International Federation for Gynaecology and Obstetrics (FIGO) recently highlighted that in spite of COVID-19 transmission being indiscriminate, evidence has revealed that the pandemic has additionally coalesced pre-existing inequalities between men and women. As a result, this puts already vulnerable women and children, often with weaker access to



political and economic power, at a much higher risk, to the consequences of lockdown; experiencing GBV being one of them.

A paradoxical phenomenon to the rise in reported cases of GBV is the fall in the number of reported cases. According to the International Rescue Committee (IRC), by May 2020, reports of abuse had decreased by 50% in Bangladesh; Iraq recorded virtually no cases of abuse for almost two months. One may ask if this is because no one laying victim to perpetrators of violence during lockdowns. However, the notion that victims of GBV are not able to seek refuge or report cases of violence outside of their homes because of strict stay home directives must be considered.

As countries begin to ease on their lockdowns, the aftermath of the different forms of GBV will unfold. Consequences

of sexual violence may present as early or unintended pregnancy, rising incidence of sexually transmitted infections and physical trauma, and injury to a female's genitals. Physical violence could be revealed in one's bodily injuries, bruises, fractures, and sudden physical disabilities that were not there before. Mental health problems, such as depression and suicide ideation, will also very likely emerge.

In times of crisis, vulnerable populations, especially women and children, should be protected and given a glimmer of hope in the fight against GBV at all costs. There should be widespread dissemination of information with regards to emergency services offered for victims of GBV, even during and in spite of a lockdown. Toll-free helplines must be made public and infrastructure such as safe shelters opened.



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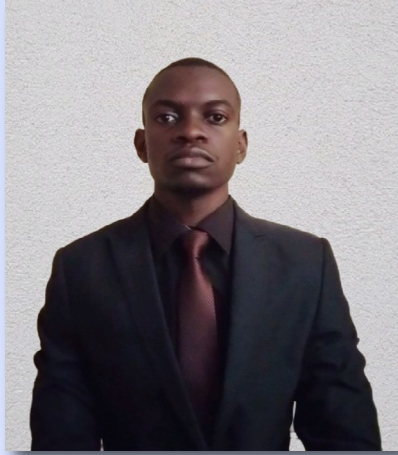
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## COPING WITH THE COVID-19 PANDEMIC LOCKDOWN

By **Anthony Nsamba Limbumbu** 6th Year Medical Student –  
University of Zambia, YES Zambia Fellow



Have you considered what the ideal way to spend the lockdown would be? Wouldn't it be great to just eat, sleep and watch movies? Or stick to social media at the first light of the day until its disappearance at the end of it? Not unless you want to be productive, that isn't the best way. Here's the thing, life is like a car on four wheels, to move at a good and directed pace, each of the tyres must be well maintained, and the sooner you do this, the quicker you reach your destination. These tyres in our lives are appositely described in four dimensions, according to Stephen Covey as our spiritual, physical, mental and socio-emotional selves<sup>1</sup>. In this article, I explain how I have managed to maximize these areas during the COVID-19 lockdown to make it more productive. With no further ado, let's dive in.

### 1) Spiritual self

We all believe in something, something we hold true and assert to. Working on your spiritual self improves your spiritual intelligence, which is the capacity for developing meaning, vision, and values and how the inner life of mind and spirit relate to the outer world. Being a Christian, the first thing I do every morning is pray, which is followed by about an hour to an hour 30 minutes of reading the Bible, religious books, or watching a sermon.

### 2) Physical self

Health is wealth, eating healthy and physical activity does not only have innumerable benefits to our bodies but also changes our attitude and mood. Arnold Schwarzenegger once said, "Training gives us an outlet for suppressed energies created by stress and thus tones the spirit just as exercise conditions the body"<sup>2</sup>. With this in mind, I exercise every morning for 2 hours with activities that include push ups, pull ups, sit ups, frog jumps, jumping jacks and jogging around the yard. I have also increased the amount of fruits and vegetables I eat, and drinking at least 3 litres of water per day.

**“...it is imperative to read as much as one can.....”**

### **3) Mental self**

I have been reading books and articles on many topics to keep myself informed and acquire new skills. Since the initiation of the lockdown in March, I have read *The 48 laws of power* by Robert Greene, and currently reading Stephen R. Covey's *The 7 habits of highly effective people*. The lockdown is also an opportunity to revise and understand things I did not in school, as well as to be updated with the new breakthroughs in my career. It is said that reading a book is to the mind as whetstone is to the sword if it is to maintain its edge. That is why it is imperative to read as much as one can. Furthermore, I also attend virtual lectures through Zoom, meditate and have introspection sessions where I mostly learn from my past mistakes and experiences.

### **4) Socio-emotional self**

Being a student, at a driving distance of about 358Km away from home for at least 6 years now, I normally have less time to spend with my siblings and mother. Staying home has given me the chance to bond more with them through different activities that

include having meals together, playing board games and just sitting to talk. It also is a great time to make a clear plan on how to achieve the goals I have set up and plan for financial freedom. It is very possible to achieve financial freedom early in life as a student, one can make an investment and simultaneously open a friendly savings account with a local bank.

In conclusion, coping in these areas is very productive in almost every need that we have as humans, and has been very effective for me. It may be difficult to start, but the first step is always the hardest. Aristotle put it this way, “We are what we repeatedly do, excellence, then, is not an act, but a habit,”<sup>3</sup> and in habit formation, I use the 21/90 rule: it takes 21 days to create a habit and 90 days to create a lifestyle. It's up to you, do you want to be productive or not? Stay safe.

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## SCREENING OF HYPERTENSION- AN EFFECTIVE WAY OF STRENGTHENING PRIMARY HEALTH CARE

**By Penias Tembo- BscHB, MBChB (Final Year) -  
University of Zambia, YES- Zambia Fellow**



economies grow (1). Amongst services necessary for strengthened primary health care system is access to disease screening services. With the rise in levels of hypertension in LMIC, it is imperative that screening services are enhanced.

**“Hypertension is usually asymptomatic until complications arise”**

The concept of Primary Health Care (PHC) has been redefined over time. In some contexts, it has been referred to the provision of ambulatory or first-level of personal health care services. In other contexts, it has been understood as a set of priority health interventions for low-income populations. PHC is essential in solving health problems faced in communities in low- and middle-income countries. The WHO says that investment in primary health care is essential to provide access for the most vulnerable, build more equitable societies, and help

Hypertension is a major public health concern. Over 10 million lives are needlessly lost each year due to raised blood pressure and only half of individuals suffering from hypertension are aware of it. In Zambia, the prevalence of hypertension is reported to be at 34% in some sections of society with a low level of public awareness. The STEPS survey 2017, showed 62.2% of men and 34.4% of women had never been screened for hypertension (2). A contributing factor to this finding is a lack of screening programs

to increase sensitization of hypertension in the country. The May Measurement Month (MMM), an initiative of the International Society of Hypertension, which is carried out by the Center for Primary Care Research-University of Zambia, is one of the few programs available for mass screening of hypertension in Zambia. However, a more concerted effort is required by relevant stakeholders in both the public and private sectors to change the rationale.

Hypertension is usually asymptomatic until complications arise. Establishing effective screening programs may contribute to the reduction of the occurrence of cardiovascular and central nervous system complications as there will be early administration of antihypertensive medications to affected individuals that are captured during the screening process. As a result, the economic implications associated with treatment of complications could be significantly reduced, and savings generated could be channeled into other areas of the health sector. Furthermore, there is paucity of research surrounding hypertension in Zambia. Increased disease surveillance through screening will help add to the statistical body of knowledge whose

information could be used as a guide by policy makers for various planning purposes (3).

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# RAISING AWARENESS ON COVID-19 BY YES ZAMBIA FELLOWS



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## TOP-TEN-WITH-MENTORS (YES ZAMBIA)

### CELEBRATING MOTHERS DAY WITH MENTORS (YES ZAMBIA)



**Dr. Patricia Shinondo**

Dr. Patricia Shinondo is a Paediatric Surgeon, a relatively young subspecialty of surgery worldwide, focused on children's surgery, from birth to 15 years of age. Having studied in Russia, she quickly learnt to adapt to challenging circumstances. This helped her during her surgical training in the male-dominated field of paediatric surgery, under the University of Zambia, leading to her graduation as the first Zambian female paediatric surgeon. She is a fellow of the College of Surgeons of East, Central and Southern Africa, and an associate fellow of the American College of Surgeons.

Dr Shinondo has keen interest in research, surgical education, and global surgery. She is part of the global paediatric surgery

community seeking to improve access to children's surgical care and provide safe surgery for children in low and middle income countries. She is an advocate for safe children's surgery in both our urban and rural areas in Zambia.

She has held leadership roles such as vice president for the Resident Doctors Association of Zambia, and chairperson of the business advisory committee for the Zambia Medical Association. These roles have given her a strong desire to see increased female representation in key decision making roles in Zambia. She hopes to inspire women to think outside the box and aim for their dreams, despite inadvertent societal roles, or preferences.

Q1. What inspired you to become a paediatric surgeon?

My inspiration came from my love for both parts of my job - children and surgery. I always wanted to work with children, and once surgery 'pulled at my heartstrings,' the inspiration was born.



Q2. How did it feel to be the first Zambian female paediatric surgeon, was it challenging to take on a male-dominated field?

I imagine being a first 'anything' is overwhelming. I was blessed to have supportive male colleagues who helped make frequent challenges more palatable. There were female foreign nationals during my training, and that also definitely cushioned the blow.



Q3. What moments have made you proud and happy about choosing this specialty?

Too many to choose from. Having an opportunity to do what you enjoy every single day is certainly a source of pride.



Q4. What mechanisms have you adopted over the years to keep you from burning out?

I try to leave work at work, when I'm not on-call of course. To completely separate work life and home life. I also make an effort to de-stress regularly (exercise, and reading non-medical literature) and invest in my support group (with the stresses of our type of work, we all need a good support team).



Q5. How have you managed to balance work, research and your family, where/how do you even draw a line?

I don't think I've mastered the 'balance' yet, neither am I sure that it's even possible. So I try to simply give my best to each part of my life, whilst I am in that moment.



Q6. What has been your major challenge(s) in carrying out your work and research and being consistent ?

Learning to prioritize time for research despite heavy/demanding work schedules. Research isn't a major requirement/ expectation in many of our daily job activities, and so giving it value must start with us.



Q7. Have you doing any research? If so, which of your publications would you like to share in summary (what were the pertinent findings)

One of the recent publications is on the topic of "Non - accidental trauma in children", or child abuse - this one specifically focusing on insertion of foreign bodies/objects into childrens private parts. This is something not frequently spoken about, but unfortunately prevalent in our societies. More advocacy is needed, with involvement of traditional 'healers' and community leaders to help educate the wider community of the dangers of these acts.



Q8. Where do you see yourself career-wise in the next 10 years?

The plan is to have mentored more female paediatric surgeons by then, and helped them achieve even more than what I have achieved. I have a passion for research and global surgery, and so plan to keep growing in both.



Q9. What will you do to ensure more junior doctors specialise in paediatric surgery?

'People cannot be what they cannot see', I firmly believe that exposure is critical. So I think being a voice for paediatric surgery is a start, and eventually, advocate for junior doctors to have a paediatric surgical rotation during their internship.



Q10. What's your advice to YES mentees and any early career scientists?

Hold on to good mentors, they will impact not only your academic/professional growth, but also life in general. Science and research may not be valued by all, but it affects us all. Stay the course, believe in yourselves, and lastly, with each day of hard work, you get closer to success.





## **REFLECTIONS – Tepwanji Mpetemoya 6th Year Medical Student, University of Zambia, YES - Zambia Fellow**

### **Lessons from the YES Online Learning Program and Recommendations for E-learning.**



As a mentee under the YES Zambia Research and Mentorship program, I am required to undertake online training that has 10 modules. Prior to joining YES, I had never done any form of online learning; thus it was interesting to dive in. Here are some of the things I learnt in my 1st year with YES:

#### **1. An Online Course is a “Real” Course.**

Much like the courses, we take in face-to-face at school, online lessons must be taken with the same level of attention and importance for you to make it work. They shouldn't be under prioritized just because you are able to do them at your own pace.

#### **2. Know your curriculum beforehand.**

Just like the YES Program, many online courses have an outline of the intended learning outcomes you're expected to achieve as the course progresses and the time in

which you expected to do so. Taking a look at your full curriculum before you begin gives you a good base for planning out how you intend to complete the objectives on time.

#### **3. Make a Study Plan and Hold Yourself Accountable.**

At the beginning of each Module, take the time to plan readings and work on assignments. Write out a realistic weekly schedule with dates and times that works for you. Simultaneously, ensure that you highlight import deadlines to avoid missing them.

If you're having trouble holding yourself accountable, pair up with a classmate or enlist the help of a friend to check in as an accountability partner. During my 1st year at YES, my friend and fellow YES mentee, Dr. Christabel Phiri was outstanding and a great help in this regard. Special Thanks to her for helping me thrive.

#### **4. Practice Time Management**

So, now that you've established that it's a real course, you have your curriculum, You've made a study plan, and you've got an accountability partner. What next? You get the ball rolling and manage your time.

How you manage your time will depend on your learning style, personality, and schedule outside the online course. A seemingly obvious but great hack I learnt along the way

is to set reminders for yourself to complete tasks. Additionally, when pursuing your weekly schedule, factor in prior commitments that may interfere with it (e.g., weddings, vacations, work trips etc.) and allocate extra time to complete that week's work.

### **5. Have a quiet, consistent study area and stay organized**

Setting up a regular and dedicated learning environment for studying helps you maintain a routine. Experiment to see which type of setting boosts your productivity, be it a library, dinner table, or office desk, and stick with what works best for you.

When setting up your study space, make sure you:

- Have a high-speed internet connection
- Have the required books, materials and software for the course
- Have headphones for listening to lectures or discussions

### **6. Eliminate distractions**

This can be a tough one, especially when working from home. You need to pick a time that's relatively less busy and politely tell your family or roommates that you need quiet time and not to be disturbed for a specific period unless the house is on fire.

It's also helpful to put your phone on silent and turn off your social media notifications. I learnt the hard way that one 'ping' from any of your social media platforms can suck you

in and your productivity will come to a halt. Before you know it, two hours are gone and you haven't achieved any of your goals.

It might not seem like it now but it really wouldn't hurt to go off the grid till your task is done to ensure that you are mentally engaged with the course.

### **7. Avoid procrastinating and Beat Deadlines**

Waiting for the last minute to complete work is never a great idea. Stay proactive to avoid unnecessary stress and anxiety.

Finishing work early means you have more time to ask questions and make improvements.

### **8. Have fun**

Play calming music, drink a hot beverage, take a break when you need to. Enjoy the experience. With every accomplishment, reward yourself.

### **References**

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