

IMPACT REPORT

2022

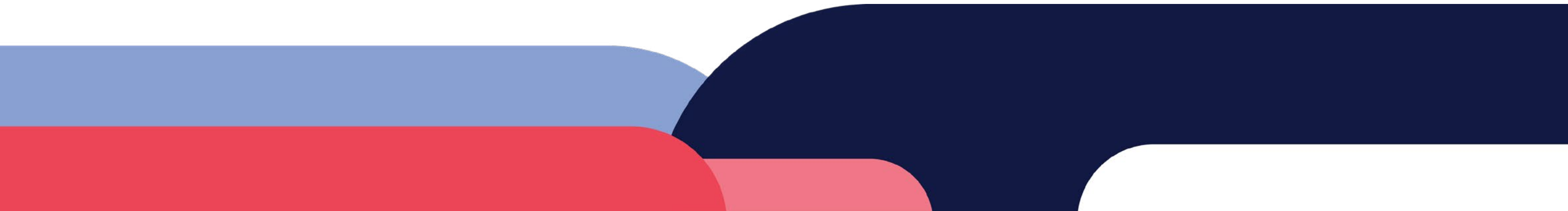
Working in partnership to
support development of safe
anaesthetic and critical care
in Zambia since 2012



Zambia Anaesthesia
Development Program

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BACKGROUND TO THE PARTNERSHIP

The Zambia Anaesthesia Development Program is a partnership of physician anaesthetists from the organisations Global Anaesthesia Development Partnerships and the Society of Anaesthetists of Zambia, working hand-in-hand to develop safe anaesthetic and critical care. Partners work together to continually identify priority areas and implement strategies to address these using training, quality improvement and patient safety initiatives and research.



IN 2022, WE FOCUSED ON:

Training programme support, working to recover from the impact of the COVID-19 pandemic on training programme capacity

Increased capacity for regional anaesthesia improving perioperative pain management, patient safety and the patient experience

Physician Anaesthetist wellbeing

2022 has been an exciting year for ZADP. With the return of in-country volunteering and face-to-face training courses, we have been able to strengthen our hybrid approach to partnership strategy setting, project management and training support. We have developed collaborations with multiple new organisations, bringing in new specialist skills to support training and mentorship and enabling us to share our training opportunities with different multidisciplinary healthcare professionals and outside of Zambia.

2022 IN NUMBERS

17 Zambian doctors were supported in their anaesthesia specialty training by ZADP

30 doctors across six countries were supported with remote regional anaesthesia training

5 volunteers supported training in-country

31 volunteers supported training remotely

18 additional volunteers provided training through new collaborations

94 days of in-country training were provided by ZADP volunteers

283 days of remote training were provided by ZADP volunteers

14 additional days of training were provided through new collaborations

149 people registered to attend the GADP virtual conference on the 4th Feb 2022

532 hours of local project management support were invested in, furthering training opportunities within Zambia



TEN YEARS OF ZADP

- 48** Zambian doctors have been supported in their anaesthesia training
- 30** Zambian doctors have completed clinical training to become a physician anaesthetist
- 68** anaesthetic trainee volunteers have supported ZADP in-country
- 4** anaesthetic consultant volunteers have supported ZADP through long-term in-country placements
- 35** anaesthetic consultant volunteers have supported ZADP through short-term in-country placements
- 13** volunteers have supported training through ZADP remote fellowships
- 2** hospitals in Zambia are training specialist anaesthetists
- 12** hospitals have at least one physician anaesthetist full-time



- In Zambia, there are now physician anaesthetists subspecialists in:
- Paediatric anaesthesia
 - Regional anaesthesia and acute pain
 - Obstetric anaesthesia
 - Cardiac anaesthesia and critical care

WHERE ARE THEY NOW?



Dr. Abel Mwale

Anaesthesiologist; Chief Medical Officer, CFB Medical Centre, Lusaka
President, SAZ CANECSA- country representative and examination and credentialing committee



Dr. Brenda Chamileke



Dr. Bubala Machila



Dr. Chalwe Mutesa-Mwewa



Dr. Chikonde Lubaya



Dr. Angel Phiri

Acting Consultant Anaesthesiologist
University Teaching Hospitals, Women and Newborn Hospital, Lusaka



Dr. Arthur Polela

Anesthesiologist
Levy Mwanawasa University Teaching Hospital, Lusaka



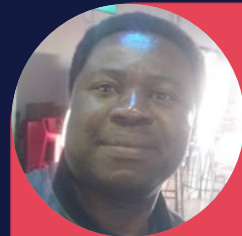
Dr. Carol Muloshi-Sakala

Consultant Anaesthesiologist/ Intensivist and Head of Department
Levy Mwanawasa University Teaching Hospital, Lusaka



Dr. Christine Msadabwe

Consultant Anaesthesiologist
Cancer Diseases Hospital, Lusaka



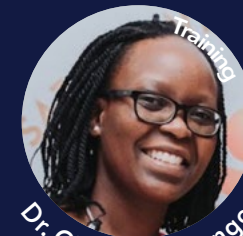
Dr. Collins Chakana

Consultant Obstetric Anaesthesiologist
Konkola Mine Hospital, Copperbelt Province



Dr. Davies Mulenga

Specialist Anaesthesiologist
University Teaching Hospital Lusaka



Dr. Chisaka Chibungo

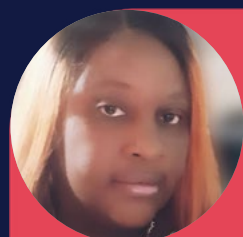


Dr. Christian Bagayamukwe



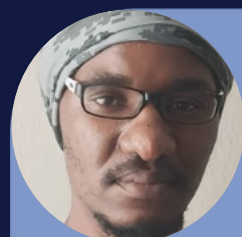
Dr. Francis Kalipinde

Registrar
University Teaching Hospital, Lusaka



Dr. Hazel Mumphansha

Paediatric Anaesthesiologist and Postgraduate Anaesthesia and Critical Care training lead, University Teaching Hospital, Lusaka
Lead for Anaesthesia and Intensive Care, University of Zambia
CANECSA Secretary General



Dr. Henry Nchimunya

Paediatric Anaesthesiologist
Head of Anaesthesia
University Teaching Hospital Eye Hospital Lusaka

“At the inception of the MMed Anaesthesia project in 2010, anaesthetics in Zambia was an undervalued discipline with no specialist training capability. Now, a little over a decade later, Zambia has a credible postgraduate training programme, and delivers considerably safer surgery for its population. All down to talented graduates, a committed global partnership, and truly inspirational educators.”

Prof. John Kinnear
UK Founding Head of Programme



Dr. Francis Kalipinde



Dr. Jerry Mwansa



Dr. Katongo Mumba



Dr. Katulondi Mpanya



**Maj. (Dr.)
Hope Phiri**

Specialist Anaesthesiologist
Northern Command Military
Hospital, Ndola
Zambia Airforce Medical Services
Dept



**Dr. Imraan
Ahmed**

Senior Registrar
University Teaching
Hospitals,
Lusaka



**Dr. Jane
Kabwe**

Specialist Anaesthesiologist
**Head of Anaesthesia and Critical
Care**
and Chairperson of the Research
Committee, National Heart
Hospital, Lusaka
Co-Founder - YES Zambia



Dr. Kelly Simwatachela



Dr. Kotutu Mulenga



Dr. Mack Kalenga



Dr. Maria Kansenga

**“The impact of ZADP in the last ten years is
immeasurable...There are now more physician
anaesthetists practicing in various sectors, from public,
private, academia and even defense forces.
Happy tenth anniversary ZADP!”**

Maj. Dr. Hope Phiri

Graduate- MMed Anaesthesia and Critical Care 2017



Dr. Mutande Chisanga



Dr. Naboth Sichone



Dr. Ngimezi Phiri



**Dr. Jullien
Chomba**

**Specialist
Anaesthesiologist**
Arthur Davison Children's
Hospital,
Ndola



Dr. Niza Sinkonde



Dr. Ntumba Nkongolo



Dr. Oteng Ramoseli



**Dr. Lupiya
Kimena**

Acting Senior Registrar
Anaesthesia PhD fellow
Mie University,
Japan



**Maj. (Dr.)
K. Lwimba**

Specialist Anaesthesiologist
Regimental Medical Officer,
4 Infantry Battalion, Gondar
Barracks, Chipata



**Dr. Masuzyo
Zyambo**

**Consultant in Anaesthesia and
Critical Care**
Levy Mwanawasa University Teaching
Hospital, Lusaka; Acute Pain and
Regional Anaesthesia subspecialist
Speciality Training Program
(Anaesthesia and Critical Care)
Co-ordinator



**Dr. Mbangu
Mumbwe**

**Consultant
Anaesthesiologist and
Head of Department**
Ndola Teaching Hospital,
Ndola



**Dr. Michael
Kangwa**

**Fellow in Paediatric
Cardiac Anaesthesia**
Sylvan Adams Children's
Hospital,
Israel



**Dr. Misheck
Zulu**

Registrar
University Teaching
Hospital,
Lusaka



**Dr. Naomi
Shamambo**

Specialty Doctor
Anaesthesia, Worthing
Hospital,
UK

“I was in the second group of physician anesthetists trained in Zambia. The ZADP programme made it possible for me to be the doctor I am today, and I say thank you to everyone who has played any role in making the programme a reality.”

Dr. Tuma Kasole

Graduate- MMed Anaesthesia and Critical Care 2016



**Maj. (Dr.)
Ndaba
Sipuka**

Physician Anaesthesiologist
Head of Anaesthesia and
Intensive Care Department
Maina Soko Military Hospital,
Lusaka, Zambia Airforce



**Dr. Ninza
Sheyo**

Clinical Interface Manager
Zambia National Blood
Transfusion Service



**Dr. Patrick
Kalenga**

Consultant Physician
Anaesthesiologist
National Heart Hospital,
Lusaka



Dr. Petronellah Kabamba

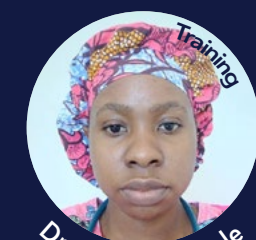


Dr. Rebecca Lungu



**Dr. Samuel
Sibanda**

Paediatric Fellow
Paediatric Anaesthesia
Training in Africa,
University Teaching
Hospital



Dr. Sarah Musalale

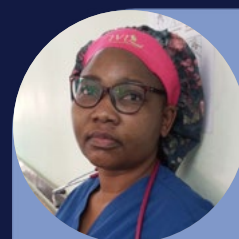


Dr. Yav Dorssaint



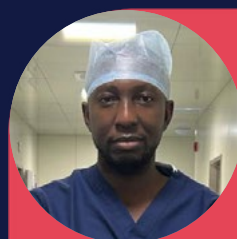
**Dr. Sompwe
L. Mwansa**

Paediatric Fellow
Paediatric Anaesthesia Training
in Africa, University Teaching
Hospital, Secretary General,
Society of Anaesthetists of
Zambia



**Dr. Suzyo
Musamara**

Registrar
University Teaching
Hospital



**Dr Tinga
Munga**

Senior Registrar
Levy Mwanawasa University
Teaching Hospital,
Lusaka



**Dr. Tuma
Kasole**

Consultant
Anaesthesiologist
Nchanga South Hospital,
Chingola



**Dr. Ushma
Patel**

Consultant Cardiac
Anesthesiologist
Head of Anesthesia, Resuscitation
and Intensive care
Internship coordinator and overall
supervisor, Medland Hospital,
Lusaka

PART 3

SAFE ANAESTHESIA FOR SAFE SURGERY

Safe anaesthesia ensures surgery is done in the best possible way for the patient, surgeon and indeed the anaesthetist. Not only does anaesthesia facilitate the surgery to be performed, but it ensures the patient is safe throughout, pain-free afterwards, and is cared for in the best possible place. Anaesthesia is also important for ensuring the patient has the fewest possible complications associated with surgery.

Safe anaesthesia is needed for the health of a country ensuring the nation receives the best possible surgical care. It is also cost-effective and helps ensure patients spend

the least amount of time in hospital following surgery and recover well afterwards, thus saving on the country's economy and helping the nation's population remain working and productive for a longer period.

Growth in anaesthesia also enables more complex surgery to be undertaken and consequently, helps to develop a country's health system meeting the needs of more people. Thus, anaesthesia plays an important role in ensuring development and growth of a nation through good population health and the availability of safe healthcare.



ZADP TEACHING FELLOWS 2022



Dr. Palbha
Jain



Dr. Flora
Pollock



Dr. Hannah
Phelan



Dr. Rachael
Horan



Dr. Colin
Hall



Dr. Laura
Bond



Dr. Didi
Odinkemelu



Dr. Helen
Williams



Dr. Nathan
Betteridge



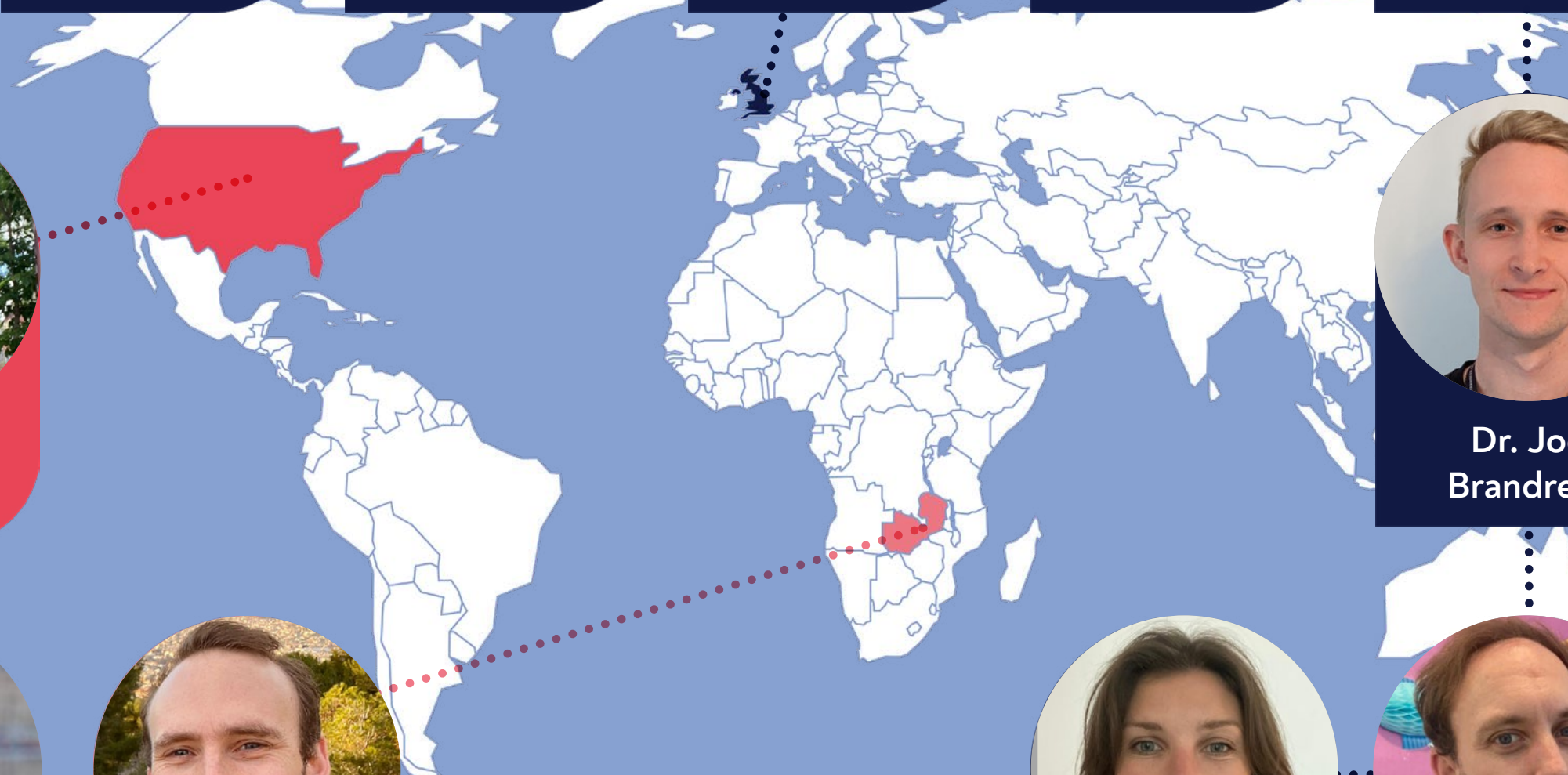
Dr. Holly
Eadsforth



Dr. Ryan
Ellis



Dr. Laura
Gallop



IN-COUNTRY ZADP SUPPORT

August 2022 saw the return of in-country ZADP fellows for the first time since the start of the pandemic in 2020. Since the last cohort of volunteers, there have been a number of changes in Zambia; the government response to the pandemic resulted in splitting of physician anaesthetists in Lusaka between University Teaching Hospital and Levy Mwanawasa University Teaching Hospital and there is an ongoing effect on anaesthetic workforce and training, compounded by the effects of the pandemic itself. The ZADP model also evolved during this time with the addition of the remote fellow cohort, providing teaching online from across the globe.

The brief therefore for the in-country fellows was to consider how to best position themselves in response to these changes, and to prioritise activities that lend themselves to direct contact – namely in-theatre teaching and simulation. In addition to increasing training in the operating theatre, the following are the key priorities identified by fellows and how they have worked towards supporting each.

WELLBEING AND MORALE

This was identified early as an area of significant need. In common with the anaesthetic workforce in the UK, and worldwide, there were high levels of fatigue and signs of burnout amongst trainees and seniors. During the period of the fellowship, in-country fellows established the following interventions:

COFFEE AND CASES

A new forum was established for the trainees to have protected time outside of their working hours in which they could socialise, informally debrief and discuss difficult cases over coffee and breakfast provided by the fellows. This has been running fortnightly in person at University Teaching Hospital with some sessions offering a remote link to allow trainees in Ndola to participate. Uptake has been good and feedback positive – with one trainee commenting that it is the first time they have spent time together as a cohort since before the pandemic.

FIGHTING FATIGUE

During the first Coffee & Cases session it was identified that the trainees had lost their protected rest space for use during on-calls, and consequently had been forced to either stay awake or sleep in their cars. ZADP fellows are in the process of acquiring a sofa bed for the anaesthesia seminar room to allow trainees access to private and protected rest space within the hospital. Educational resources based on the Association of Anaesthetists' "Fighting Fatigue" campaign have also been displayed in the seminar room with education to support healthy and safe practices around out-of-hours work.



THE ZADP BOARD

A ZADP Board has been developed to display information about upcoming ZADP teaching sessions and planned social activities to make trainees feel included and kept informed. Inclusion of a "Who's Who" photo board enables the trainees (and visiting fellows) to identify each other as well as visiting and remote fellows.

SOCIAL ACTIVITIES

The fellows organised a number of successful social events to facilitate anaesthetists relaxing and spending time together outside work. These included a braai afternoon, a "World Anaesthesia Day" social, an outing in honour of Zambian Independence Day with the trainees in Ndola, and many informal gatherings outside the working day.

The hope is that the above interventions will not only benefit the current cohort of trainees' morale, but also encourage recruitment and retention to ensure sustained numbers in the anaesthesia workforce.

SIMULATION

Prior to the pandemic, there was a well-established programme of simulation running at UTH. This has unfortunately suffered in recent years – the ZADP storeroom and simulation space in main theatres had been reclaimed for use by theatre staff, and equipment had fallen into disrepair after long periods without use.

Using the previously developed ZADP simulation passport (a logbook of simulation activity completed and a guide for future learning) and a new ‘pop-up’ simulation space established in elective theatres at University Teaching Hospital, in-situ simulation training has been used to practice critical incident management in an environment close to where trainees are working.

Initial scenarios were run on a one-to-one basis to allow trainees unfamiliar with simulation to gain experience without the pressure of performing in front of peers. Subsequent sessions have been run with larger groups, allowing more complex scenarios to be undertaken and teamwork skills to be practiced, with other trainees observing the scenario and providing feedback. Possibly the most rewarding session so far had the trainees leading the post-scenario debrief and learning conversation, with great enthusiasm and positive feedback from the trainees in attendance. 19 trainees simulation sessions have been delivered across University Teaching and Ndola Teaching Hospitals.

19 trainees simulation sessions have been delivered across University Teaching and Ndola Teaching Hospitals





Future developments to ensure sustainability of the programme include training current seniors and trainees to become simulation facilitators themselves.

INTENSIVE CARE MEDICINE

Critical care provision and training at UTH has been a challenge for a number of years, and the effect of the pandemic and workforce shortages mean this continues to be an area of significant need. Whilst ZADP recognises it cannot address these problems alone, there remains a need to provide support and training to the trainee physician anaesthetists in achieving the critical care components of their curriculum and improving their confidence in providing patient care in the critical care environment.

ZADP volunteers have delivered training using lectures and critical-care focused simulation, supported by remote fellows delivering a series of teaching sessions on critical care-related topics. Simulation training has allowed the trainees to practice scenarios such as accidental extubation and raised intracranial pressure management. Future plans include a whole-day 'Boot Camp' for trainees to practice critical-care related practical skills (such as line insertion, ultrasound and ventilator troubleshooting) and simulation in a protected environment.

PART 5

REMOTE ZADP SUPPORT

In-country and remote fellows work together to support different aspects of the anaesthetic training programme. This helps ensure that the clinical focus in Zambia is echoed by the content of the remote sessions.

ZADP remote teaching fellows run online teaching sessions for junior and senior anaesthetic trainees. Despite the ongoing challenges of busy theatre lists and overstretched rotas, sessions are consistently well attended.



JUNIOR TEACHING

Shortly after the release of our last impact report we welcomed a new group of 1st year trainees to the programme supporting them with an expanded programme of teaching. This made full use of the window of opportunity before these trainees achieved their Initial Assessment of Competency which enabled them to start contributing to out-of-hours service provision.

As well as covering the essential basic science and clinical topics, junior teaching has included viva revision sessions to help the trainees prepare for their exams.

**53 junior remote teaching sessions
were supported by 4 remote fellows
and 2 Zambian training faculty**

SENIOR TEACHING

80 senior remote teaching sessions were supported by 5 remote fellows, 6 Zambian training faculty, 2 ZADP committee members and 5 further international volunteers

Senior teaching has not only continued to rotate through the key topics of advanced training in anaesthesia, but has also, with the help of feedback from the anaesthetic trainees and in-country fellows, been able to complement current clinical teaching and activities. Our guest presenters have included a senior consultant with over 30 years of experience in thoracic, obstetric and airway anaesthesia, and two consultants in anaesthesia and intensive care. They have brought a wealth of experience to the teaching programme and facilitated rich discussion on their specialist topics.

JOURNAL CLUB AND M AND M

Remote teaching fellows have been supporting Dr Mutesa-Mwewa in running a journal club and morbidity and mortality

sessions. The first journal club of the new academic year started with a session on how to critically analyse a paper and how to maximise learning from these meetings.

Morbidity and mortality meetings have created a wealth of discussion around clinical and non-clinical aspects of care. These meetings alternate between formal case presentations with the wider MDT and informal 'open sessions' to which trainees can bring cases of interest.

Discussions have included when to call for help or discuss with seniors, decision making around risk/benefit analysis of cancelling cases or proceeding, and pre-operative optimisation.



Remote learning helps us share lessons from complex cases between anaesthetists in different countries

BUDDY SYSTEM

Remote fellows and Zambian trainees continue to be buddied up building one-to-one connections and facilitating general discussion, peer mentorship, sharing of resources, a better understanding of each other's workplace and support with preparing for presentations and examinations. This system is also an ideal format for quality improvement support and opportunities to publish and present work, with one pair working on the Anaesthesia Tutorial of the Week for the World Federation of Societies of Anesthesiologists, and another group working on an article for the World Anaesthesia Newsletter.

QUALITY IMPROVEMENT

Remote Fellow support has also strengthened quality improvement work. A session on QI methodology worked through a hypothetical case on how to improve the process of obtaining intraoperative arterial blood gases at University Teaching Hospital, Lusaka, in order to demonstrate how to turn a clinical issue into a QI project.

3 quality improvement projects have been presented internationally by remote fellow and Zambian anaesthetic trainee teams



PART 6

SUPPORTING SPECIALTY ANAESTHESIA TRAINING AT NDOLA TEACHING HOSPITAL

- Ndola is the third largest city in Zambia and is situated in the Copperbelt region of Zambia
- Its two main hospitals are Ndola Teaching Hospital and Arthur Davison Children's Hospital
- 2.8 million people live in the Copperbelt Province of Zambia with tertiary services for the region being provided by these hospitals
- With only 5 physician anaesthetists working across all sectors in the province, physician anaesthetist density is 0.18, far lower than the national average of 0.45 per 100,000 (2018), making the Lancet Commission target of 20 per 100,000 even harder to reach



This year, ZADP renovated the anaesthetic department's seminar room at Ndola Teaching Hospital, making this a well-equipped and comfortable learning space for the trainees which both improved the learning experience and delivery of teaching. Online support providing training and mentorship for trainees has continued since its introduction, and this was bolstered in October 2022, with a week-long visit of two ZADP in-country fellows.

The focus of this visit, similar to the training priorities at University Teaching Hospital, was in-theatre teaching, simulation, regional anaesthesia and wellbeing.

IN-THEATRE TEACHING

Each of the in-country fellows was able to spend time in theatre one-on-one with anaesthesia trainees providing training and clinical mentorship. A number of topics were covered based on the trainees' individual needs which where possible, also complimented the remote fellow sessions. Theatre teaching also extended to an intern on placement in anaesthetics - which was well received and they felt encouraged to apply for anaesthesia.

In line with the ZADP drive to increase training in regional anaesthesia, ZADP fellows also taught trainees about the principles and science of ultrasound imaging and key regional anaesthetic blocks which was then consolidated with an opportunity to practice scanning on human volunteers and needling techniques using a homemade model. Safety was also a focus of this teaching and ensuring that appropriate consent and safety measures such as 'Stop, Prep, Block' were highlighted.



SIMULATION

ZADP Fellows ran simulation training using the simulation passport method developed at the University Teaching Hospital. Similarly here, the challenges of finding time for the trainees to have simulation sessions were considerable, requiring a number of them to come in during their time off and meaning sessions could only be run on an individual basis rather than team-based training.

The sessions were well received by the trainees and universally they were felt to be beneficial and helpful for their practice. Many comments were made suggesting more sessions are wanted.

WELLBEING

This was highlighted as a significant area of concern with trainees here also expressing feelings of being burnt out and tired. Lessons learned in supporting trainee wellbeing at the University Teaching Hospital were also used to support trainees at Ndola Teaching Hospital including a 'Coffee & Cases' session where the trainees were invited to share difficult and interesting patient cases they had been involved with over breakfast. The conversations, although informative and educational, gave the opportunities for support and care to be given both by peers and by the

fellows. This appeared to further the support trainees were receiving with their training.

Fortunately, the fellows were able to visit Ndola over the Zambian Independence Day celebrations giving the opportunity to organise a social event to celebrate. This culminated in a drinks event where the entire anaesthetic department were invited to spend time together. It was well attended and again it was commented that it was a lovely opportunity to develop friendships and relationships outside of the hospital setting with a feeling that they can rely on their colleagues in the future.



PART 7

REGIONAL ANAESTHESIA

We have been working on this project to build safe regional anaesthesia services in Zambia since 2020 and despite the numerous challenges, have been able to make good progress. Considering regional anaesthesia was virtually nonexistent in public facilities prior to this project, it brings us great joy to see it is now becoming a real option for patients, especially for those who would otherwise be deemed unfit for a general anaesthetic. We hope regional anaesthesia services will be cost-effective, sustainable and offer huge potential for growth in patient safety and quality of care.

Regional anaesthesia is when a local anaesthetic is injected near a nerve or groups of nerves to make part of the body numb. This is a vital technique as it helps with pain relief after surgery and sometimes can allow surgery to happen without a general anaesthetic.



IN 2022, WE ACHIEVED:

regular remote teaching on regional anaesthetic techniques and ultrasound scanning practice

an additional six-month programme of remote teaching delivered through a new collaboration with regional anaesthetists in Ganga Hospital in India, training 30 anaesthetists across Zambia, Rwanda, Democratic Republic of Congo, Kenya and India. Ganga Hospital is a specialist centre in regional anaesthesia and by working with colleagues in another low and middle-income country, we were able to discuss common challenges in establishing a regional service and learn from their experiences

our regional project lead, Dr. Arthur Polela, became the Zambian Ambassador of the African Society of Regional Anaesthesia (ASFRA) and through this has delivered international webinars, other training, as well as a talks at the All Africa Anaesthesia Congress 2022 and at the Annual Conference of the African Society of Regional Anaesthesia

multiple in-country regional anaesthesia training sessions through both a workshop practising scanning and needling techniques and in-theatre training by ZADP volunteers covering different techniques, their uses and important safety considerations

introduction of a service offering epidural blocks at Levy Mwanawasa Hospital to patients undergoing lengthy knee and hip surgeries

acquisition of two further ultrasound machines from supporters to help enhance training

being able to provide ultrasound-guided Central Venous Catheter placements to patients

mentorship of multiple Zambian anaesthetists and trainees in regional anaesthesia, quality improvement and project leadership

pilot implementation of a database recording procedure and patient outcomes at one hospital site, with plans to upscale this to other centres

two clinical governance meetings focusing on regional anaesthesia safety and audit work

an international abstract and poster presentation by project team members titled “Postoperative pain scores across two tertiary hospitals in Zambia”

We have also found that this project has led to an increase in the other uses for ultrasound in anaesthesia and critical care, most notably using ultrasound to aid venous access in critically unwell patients.

“With the erratic supply of opioids to treat severe pain in most of the tertiary hospitals in Zambia, in both the wards and theatres, regional anaesthesia has gone a long way in alleviating post-operative pain.”

Dr. Masuzyo Zyambo

“This morning we spent an hour trying to get intravenous access in a patient- a one year old with severe burns. We were able to use the ultrasound from the regional anaesthesia project to get a cannula in the internal jugular vein in the end. Being able to use this equipment and these skills outside of regional anaesthesia also has been a big gain”.

Dr. Tinga Munga

“I really hope the new generation of anaesthetists will have more exposure and a better understanding of this very exciting venture. So much time, energy and resources have come through to get this project off the ground.”

Dr. Arthur Polela



NEXT STEPS

Despite a challenging time as a result of the COVID-19 pandemic and the subsequent impact on training faculty and capacity, it can be seen from these achievements that regional anaesthesia has considerably grown in Zambia with exceptional local leadership.

IN 2023, WE AIM TO :

- increase face-to-face regional anaesthesia teaching and skills practise in the clinical environment, alongside continued remote teaching and mentorship
- expand the use of epidural neuraxial blocks beyond orthopaedics
- pilot a Regional Anaesthesia Passport for trainees in Anaesthetics
- continue to work in partnership with pharmacy and procurement teams to build systems for reliable procurement of local anaesthetics within hospitals in Zambia
- implement a regional anaesthesia safety checklist at all hospital sites
- increase governance practices by expanding our database of all patient cases using a regional anaesthetic technique and follow up to other hospitals
- increase quality improvement and research activities to support our learning and growth of regional anaesthesia service development in Zambia



INSPIRE THROUGH CLINICAL TEACHING

Inspire Through Clinical Teaching and ZADP have been working together to support medical education training among healthcare workers in Zambia **since 2016**

21 Inspire Through Clinical Teaching courses have been run to date across 8 countries training more than 350 healthcare workers

7 of these courses have been held in Zambia in partnership with ZADP





20 multidisciplinary healthcare workers were trained in clinical teaching skills

Inspire Through Clinical Teaching is a four-day multidisciplinary course for clinical teachers in low and middle-income countries. It was developed by anaesthetists with backgrounds in medical education to address a perceived gap in formal training in teaching skills.

This year we ran the first face-to-face Inspire Through Clinical Teaching course since the pandemic began. This course, held at Ndola Teaching Hospital, trained 20 multidisciplinary healthcare workers, all local teaching faculty, including doctors, nurses, physiotherapists and clinical scientists. The course faculty were also from multiple disciplines including anaesthesia, surgery and nursing.

All participants reported they enjoyed and benefited from the course, they learnt new skills and they felt the course was relevant for their clinical teaching role. The most frequently received feedback from participants was that the course was interactive, engaging, simplified and to the point, and taught them skills relevant to their teaching role.

COLLABORATIONS

EDUCATIONAL SUPERVISOR TRAINING

Anaesthetic educational supervisors are experienced anaesthetists who support trainee anaesthetists in accessing learning opportunities and dealing with difficulties impacting their training

ZAMBIAN EDUCATIONAL SUPERVISOR COURSE

The first course training educational supervisors in Zambia was run this year, as a collaboration between the Royal College of Anaesthetists (UK), the Society of Anaesthetists of Zambia and Zambia Anaesthesia Development Program.

The course was requested by Zambian anaesthetists to address an identified need in training- the need for greater support for trainees in meeting their individual educational

needs as well as developing the skill set to provide this support in newly-established consultants. One of the key drivers was Dr. Anthony Chisakuta, a Zambian anaesthetist with a heart for education and the Head of Anaesthesia training programs in Zambia.



Dr. Anthony Chisakuta

11 anaesthetists from 4 countries were trained in educational supervision

Applicants applied for the course stating why they wanted to attend and what they hoped to gain. The course ran remotely over two days using lectures, discussions and workshops, and was free of charge.

The agenda was to showcase how this educational support system works in the UK and talk through common challenges, creating a platform to share and discuss. Faculty were conscious of their UK focus and highlighted that centres vary and will likely come up with unique solutions for local problems. It was apparent, however, that there were also a number of shared challenges in dealing with training issues.

The virtual platform enabled both live discussion and if preferred, an opportunity to air views and raise questions through the chat function. This gave a voice to some participants who preferred not to speak.

The course trained 6 Zambian, 2 Ethiopian, 2 Kenyan and 1 Tanzanian anaesthetist. The faculty included a Zambian anaesthetist with in-depth local knowledge and a desire to shape and develop educational supervision locally, and 9 experienced UK-based educational supervisors with varying amounts of exposure working around the world. This international diversity added depth to the experiences shared and discussions had.

Moving forwards, a hybrid approach to this course is being discussed, combining the improved global access, cost effectiveness and environmental sustainability of a virtual platform, with some face-to-face work benefitting a personal touch and often easier networking and mentorship.

“I would say every instructor needs to have this kind of training!”

“A great opportunity to share experiences of supervising training in anaesthesia”

“Really informative on the needs of the learner and how to harmonize them with the objectives of the teaching program specifically regarding the work environment and assessments”

ADVOCACY

Anaesthetists, other healthcare workers and non-clinical partners all have an important voice in international healthcare advocacy.

This year we have continued our advocacy work campaigning for greater support in pandemic management and the development of safe anaesthetic and critical care in low and middle-income country nations.

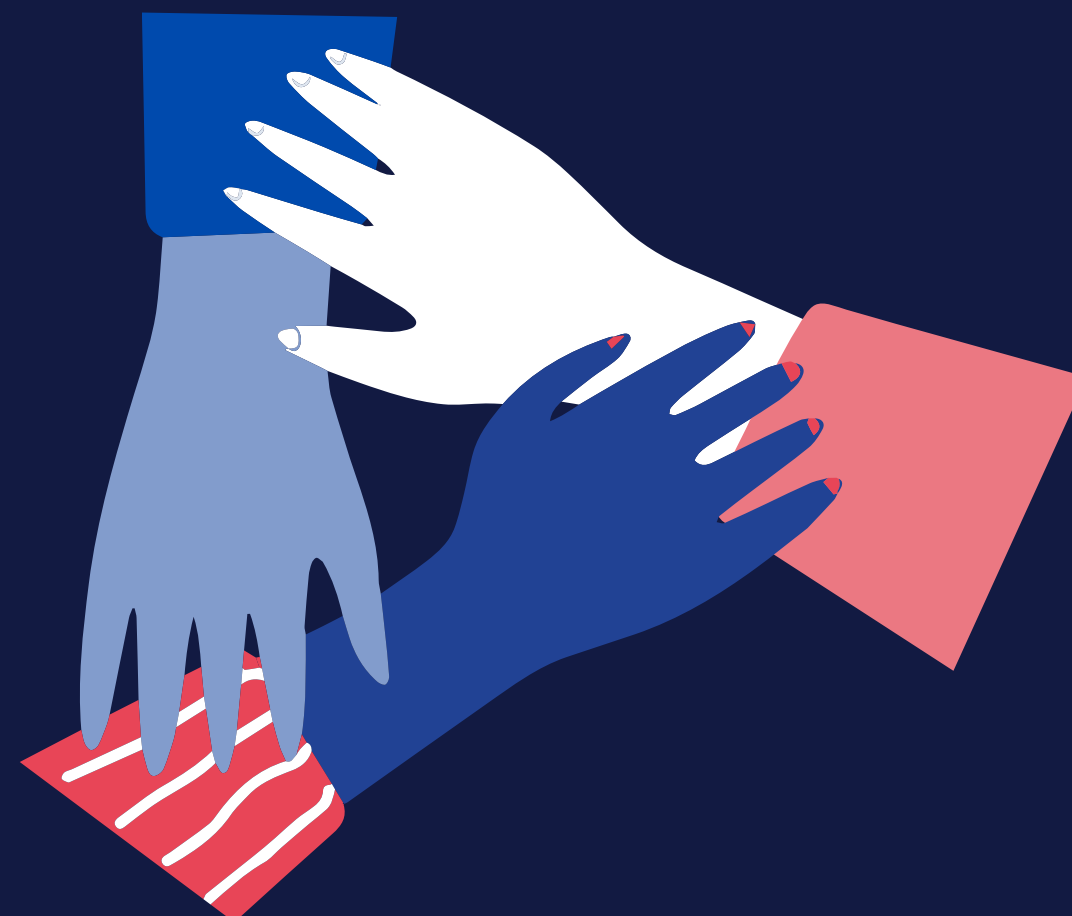


Photograph by Anna Gordon

WHAT ARE THE ISSUES ZADP ARE CAMPAIGNING FOR?

In the last two years, our partnership has seen the impact of the pandemic and economic challenges further overstretch all areas of healthcare, including the ability to provide patients with safe and high-quality anaesthetic care. In addition, issues of vaccine inequity, insufficient hospital oxygen systems for safe patient care and management of COVID-19 cases, and significant implications of the loss of UK aid, all compromise safe patient care.

This year we have continued our vital advocacy work in partnership with a number of organisations to help urgently address these needs.



WHAT ARE ZADP DOING TO HELP ADDRESS THESE ISSUES?

Following on from our advocacy work in 2021, this year ZADP have worked in partnership with the Tropical Health and Education Trust and ONE to communicate issues of vaccine inequity, the value of bilateral health system strengthening through international partnerships, and the vital need for restoration of UK Aid, to policy-makers including UK politicians at an event at the House of Commons.

ZADP have also continued work to engage the medical community in these issues through articles in the medical literature, encouraging other healthcare workers including anaesthetists to support our campaigning.

ZADP will continue to campaign for these issues in 2023. Please contact us if you would like to get involved in our advocacy.



Photograph by Anna Gordon

PART 11

CASE STUDY

DR. LUPIYA KIMENA

After spending over four years at the University Teaching Hospital for my postgraduate anaesthesia training, the time finally came to open a new chapter of my practice and move to Kitwe Teaching Hospital (Ndola). This was right after a roller coaster of an experience of exams and working through the first and second waves of the COVID pandemic.

With my arrival, our staffing consisted of two physician anaesthetists and 6 non-physicians. During the few months I spent at Kitwe Teaching Hospital, I closely mentored the non-physicians in clinical care as well as sought to enable them to recognise patients who require a specialist's attention early. Special attention was paid to obstetric anaesthesia management as the hospital had received quite a number of complex patients in the recent past.

Owing to my previous experience in managing severe COVID-19 patients at Levy Mwanawasa ICU, I was also made a COVID case management trainer and participated in various training workshops in some parts of the country in the latter course of 2022. We noted the various uncomfortable experiences health personnel had around the country managing COVID patients and how they now felt more confident to rise to the occasion in future waves. They really appreciated the knowledge provided concerning the escalation of oxygen and the safe transfer of a critically ill patient.

Locally at the Kitwe Teaching Hospital, I participated in tutoring medical students from Copperbelt University and Lusaka Apex Medical University during their rotation in the department. For most of them, it was their first time really understanding what anaesthetists do, as well as reaching a point to even consider it as a future career.

Further, I also conducted an introduction to resuscitation workshop at my hospital with the help of Dr. Sompwe Mwansa. During this session, participants were taught to describe, demonstrate and manage an unresponsive patient. Other items covered were adult CPR, safe use of a defibrillator as well as the aspect of teamwork.



After working for some months, I went on study leave in order to pursue a Ph.D. in cardiology at Mie university in Japan where we are doing research on sodium glucose co-transporter 2 inhibitors. I have learned so much over the past few months, having paused anaesthetising humans to anaesthetising and performing echos on animal models of heart failure, as well as acquiring a deeper exposure to experimental techniques in molecular biology. It's really fun, especially when experiments work out after a few failed attempts. The program is teaching me perseverance. I hope to use my newly acquired skills at the end of my Ph.D. to mentor upcoming anaesthetists in their research activities.

CASE STUDY

DR. REBECCA LUNGU

I am currently pursuing a Masters of Medicine in Anaesthesia and Critical Care and I'm also under the Specialty Training Program. I'm currently in my second year of training.

My first exposure to anaesthesia was during my undergraduate training and I never really considered it as a career path at that point, because I only had a superficial impression of it, which was not motivating. However, towards the end of my junior resident medical internship program, I began to interact with seniors from various specialties, and that is how I interacted with a senior consultant from anaesthesia and I was convinced that it was a good fit for me.



“The biggest part of my enjoyment of anaesthesia is the support”

I have been doing anaesthesia for about a year now and I have no regrets. Although it can be physically and intellectually demanding, I find it interesting, exciting, and I enjoy doing it.

I would also like to say that the support under the anaesthesia department is awesome. Right from the first day, they were very helpful guiding me on the ins and outs of theatre and what material to study, encouraging me. Honestly, the biggest part of my enjoyment of anaesthesia is the support.

And now that I have a good feel of the various departments under anaesthesia, my interests look towards paediatric anaesthesia. I find working with children interesting. I also lean more towards paediatric anaesthesia because there are a number of areas I feel I can help in improving and I would like to dedicate myself to working on these areas.

CASE STUDY

DR. MACK KALENGA

I am a 3rd year Masters of Medicine in Anaesthesia and Critical Care trainee at the University of Zambia, Lusaka.

I was first attracted to anaesthesia as a speciality when I was still a medical student. The culture in the department seemed strikingly different from every other speciality I'd been to. Not only did the Consultants actually smile, but they expected us to refer to them by their first names. I quickly felt a general sense of safety and freedom to ask questions and to learn. I also got the sense that patient safety was an absolute priority for anaesthesiologists. Having now joined anaesthesia, I am excited about being part of a team that is not only patient safety orientated but also promotes safe spaces for fellow healthcare workers and students.

As regards my future in anaesthesia, I remain quite open-minded but I am particularly interested in regional anaesthesia, intensive care and obstetric anaesthesia.

“I also got the sense that patient safety was an absolute priority for anaesthesiologists.”

SAZ UPDATE

SOCIETY OF ANAESTHETISTS OF ZAMBIA IN 2022



SAZ presented the first-ever Surgery, Obstetrics, Trauma and Anaesthesia (SOTA) Charter which was signed by SOTA Charter partners (Zambia Association of Paediatric Surgeons - ZAPS, Surgical Society of Zambia, Zambia Orthopaedic and Trauma Association, Neurosurgical Society of Zambia, Zambia Association of Gynaecologists and Obstetricians) and submitted to the Minister of Health

SAZ held its 7th Annual International Anaesthesia Conference themed “Coming together to meet Zambia’s SOTA needs”

SAZ delivered a SAFE Paediatric Anaesthesia course, which was facilitated through a collaborative partnership between the Society of Anaesthetists of Zambia, SmileTrain Inc. and the Ministry of Health, training a total of 26 anaesthesia providers- both physician and non-physicians, working at hospitals throughout Zambia

SAZ conducted the first basic life support and advanced paediatric life support course in conjunction with the Zambia Association of Paediatric Surgeons (ZAPS) at the National Heart Hospital. This course aimed to use training to reduce infant and newborn mortality as outlined in the National Strategic Plan for Health, and trained 15 nurses and 5 physicians over four days.

SAZ also conducted a basic life support course at the Pendleton Family Practice in Lusaka training 11 staff





THE 2023 ROAD MAP

For the year 2023 and beyond, SAZ is focussing on increasing awareness about anaesthesia as a profession in anaesthesia post-graduate training. To achieve this, SAZ has planned to introduce an anaesthesia rotation at the internship level.

Through interaction with the Zambian Ministry of Health, SAZ aims to increase its involvement in policy guidance and advocate for an increase in postgraduate anaesthesia trainee positions.

SAZ also hopes to have increased collaboration with neighbouring societies and associations to foster knowledge exchange via platforms such as CANECSA, Africa Regional Section, and other trans-national initiatives.

To improve patient safety and avoid near misses, SAZ is working at introducing a national critical incident reporting system.

LEARNING FROM 2022

Despite being separated by distance for much of this pandemic, our partnership has both grown and strengthened and we feel a lot closer to each other. We have needed to address numerous rapidly emerging, unexpected needs since 2020, for example the need for occupational support of anaesthetists and the need to support critical care with oxygen delivery systems. We were concerned that the priorities for our partnership before the pandemic would end up taking a back-seat to these. Although for some periods and to some degree they had to, the work presented here illustrates how growth has still occurred within multiple priority areas.

Local leadership has been a particular success, with multiple Zambian physician anaesthetists taking up leadership positions both locally, within the region and internationally. Training programmes, service development projects and quality improvement are thriving under this leadership, proudly supported by both new and long-term volunteers of ZADP.



Remote communications have enabled us to effectively support each other and the training programmes with education, pastoral support and mentorship, providing a cost-effective, sustainable and environmental approach to partnership working. Although there were many strengths to remote working, many important aspects of our partnership needed face-to-face means.

With the resumption of international volunteering within ZADP this year, we have been able to develop and learn how to effectively use a hybrid approach to our work with huge successes in both training and project work.

In 2023, we will continue to focus on training and support for both trainee and specialist physician anaesthetists, strengthening the links and capacity between both training programme sites in Zambia, and the development of regional anaesthesia services. We will also continue to use our partnership to advocate for safe anaesthetic and critical care globally.

We thank all supporters, teachers and collaborators for their ongoing commitment to the essential work of our partnership and look forward to sharing the successes of 2023 with you soon.





PART 14

HOW CAN YOU GET INVOLVED

FRIENDS OF GADP

In 2022, GADP developed the option to be a “Friend of GADP”, in response to requests from supporters to get more involved with the charity’s work, to hear more partnership news, and to support the charity with a regular donation.

Friends of GADP can choose to offer more practical support to the charity (for example with fundraising, social media and communications), and importantly can commit to a monthly donation, which will support the work of the charity. In return, Friends will receive a newsletter every three months, which will contain reports, photos and stories from both GADP’s Zambian and Ethiopian partnerships. We hope that the Friends of GADP initiative will help our supporters feel more involved in and informed about our work, and crucially will generate a predictable monthly income for the charity, which is so essential to ensure our partnership work can continue.

You can find more information and sign up to be a Friend of GADP here: **Friends of GADP** (<https://friendsofgadp.my.canva.site/>)

PART 15

THANK YOU

ZADP would like to thank the following organisations and collaborators for their support during 2022



Society of Anaesthetists of Zambia

The Departments of Anaesthesia and Critical Care of University Teaching Hospitals, Levy Mwanawasa University Teaching Hospital, Ndola Teaching Hospital, Zambia

World Federation of Societies of Anaesthesiologists, with special mention to the Education Committee and Programmes support

Tropical Health and Education Trust

Safe Anaesthesia Worldwide

Royal College of Anaesthetists, Global Partnerships

Global Anaesthesia, Surgery and Obstetric Collaboration

International Relations Committee of the Association of Anaesthetists

Emirates Foundation

Department of Anaesthesia, Ganga Hospital, India

ONE

World Anaesthesia Society

Obstetric Anaesthetists Association

Volunteer faculty on the Zambian educational supervisor course and Inspire Through Clinical Teaching

British Medical Association Humanitarian Fund

Canadian Anaesthesiologists' Society International Education Fund

All supporters who have so generously donated funds or time to support the work of our partnership