ZADP



2020 Impact Report



























































Reflecting on our Essential Zambian Partnership

ZADP is a team of international anaesthetists passionate about the development of global safe surgery. Working hand-in-hand with our partners the Society of Anaesthetists of Zambia, ZADP has been supporting the development of safe, high-quality anaesthetic services and structured systems of care in Zambia through training, quality improvement and research since 2012.

ZADP is one of the partnerships operating under Global Anaesthesia Development Partnerships (GADP), an international charity working towards safe surgery. GADP is made up of anaesthetists in the UK, Canada, Australia, Zambia and Ethiopia who work together to train, support, and advocate for developments in safe anaesthetic care in our partner countries.







We have achieved so much since we began eight years ago:



Zambian doctors have been trained as specialist anaesthetists 11

Doctors are currently undertaking training to be a specialist anaesthetist



Hospitals in Zambia now have a Zambian Consultant Physician Anaesthetist



Anaesthetic consultants have volunteered...

78

months of physician training support, in addition to short-term visits



Anaesthetic trainees have volunteered... 288

months of physician training support, in addition to short-term visits



In this impact report, we present the work of our international partnership, Zambia Anaesthesia Development Program, during the first nine months of the COVID-19 pandemic.

We will explore the directions we took, what was gained, and the lessons learned, in a way which hopefully benefits both our organisation and other partnerships which rely on sharing experience and expertise across nations and health systems.

Never before have we faced a global problem of this scale enabling us the opportunity to explore how partnerships can be most effectively utilised to address the direct and indirect consequences of such a rapidly emerging new global crisis. The current pandemic is an opportunity

to fill this gap in our understanding of partnerships, so we not only use them to best effect in these new circumstances, but also learn in greater depth about their potential to adapt, support, and mitigate negative impact to healthcare systems globally.

It is our belief that there is little gain in healthcare systems attempting to deal with these challenges in isolation, particularly as each is uniquely equipped with a set of knowledge and skills different to another and these in themselves are a resource.

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How did ZADP respond in a year of crisis?

In Zambia, the low density of healthworkers including anaesthetists, combined with systems already severely constrained by resource challenges and economy, meant that health services were even more vulnerable to the impact of the pandemic. During the first wave of cases in Zambia, our anaesthetist partners experienced:

- Critically unwell patients overwhelming intensive care services
- Redeployment of staff to COVID centres, taking away from other essential services
- Postponed elective surgeries
- Decreased availability of essential anaesthetic drugs

Training was also significantly affected as we were unable to send volunteers to partner countries to train and support local anaesthetists in person and multiple courses had to be postponed.

We had to identify what our new needs were in response to this pandemic, whilst making sure our existing priorities were not ignored. We had to repeatedly improvise, adapt and overcome these new challenges.

We worked to identify the main concerns relating to COVID-19 of anaesthetists in Zambia, and then built a framework of <u>five themes</u> to guide our response.

Spread of infection Critical care capacity Need for country-wide strategy 3. Anaesthetists' wellbeing

Support for physician anaesthesia training





Learning about COVID-19 together

The different patterns of COVID-19 cases we were seeing in each of our partner countries meant we could share our experiences, crisis management strategies and the lessons we were learning with each other.

We were able to share examples of COVID-19 practice and training between Sub-Saharan African countries using our Inspire through Clinical Teaching network. These discussions had participants from Zambia, Kenya, Canada, South Africa, Rwanda and Ethiopia share their experiences in these calls. Even though critical care resources, including specialist staff, varied

between the institutions of partners involved in the call, we found the lessons to share were applicable to everyone, particularly sharing examples of simple, high-quality respiratory care. Hearing good patient outcomes following these simple measures helped the morale of all involved in the discussions also.





Taking advantage of our shared international pandemic experiences:

We used videoconference calls within our partnership to share the learning we were each gaining about COVID-19. This included sharing:

- Case stories and management
- Institutional guidelines and training material
- Strategies for managing human resource capacity including developing COVID-19 response rotas
- How we were each developing critical care capacity
- Examples of innovation, for example concerning critical care resources or personal protective equipment

Anaesthetists from eight countries contributed to our COVID-19 shared learning sessions:



ZAMBIA



ETHIOPIA



RWANDA



KENYA



AUSTRALIA



UNITED KINGDOM



CANADA



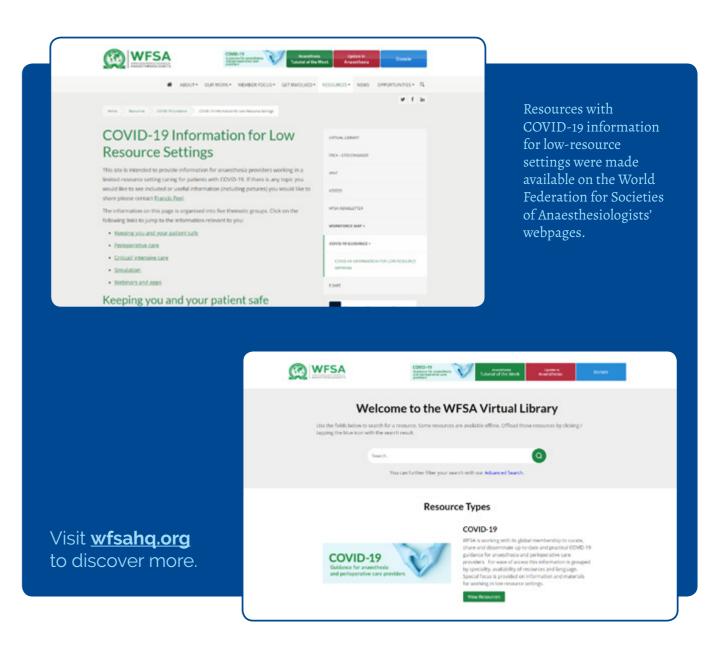
SOUTH AFRICA

How we developed educational resources as team:

COVID-19 learning resource page for anaesthesia practitioners in low resource settings

We worked with the World Federation of Societies of Anaesthesiologists to build a framework of learning needs and to identify and curate openaccess resources relating to these useful in low-resource settings.

Developing resources to support anaesthetic and critical care practice during COVID-19









Personal Protective Equipment

Making Operating Theatres and Intensive Care Units Safer.

A major concern for Zambian anaesthetic providers during this pandemic has been a lack of PPE, essential for reducing hospital infection transmission affecting patients and staff. Anaesthesia providers are at high-risk from COVID-19 due to critical care

work and exposure to airway procedures.
We developed the ZADP PPE project to ensure that all anaesthesia providers in Zambia are sufficiently trained and protected.



Working with other teams to share resources and expertise

Multiple groups have worked with us in producing PPE resources, showing what can be achieved when sharing experience and expertise.

By working with Zambian traders and nongovernment organisations we have been able to make use of innovative local solutions for our PPE campaign.

LusakaHelps and Barefoot Theatre worked with us to produce 3600 face shields we then distributed to healthcare workers in multiple acute clinical areas across Zambia.

Following a mask protocol developed by the University of Florida, we worked with a Zambian tailor to produce 569 fluid-resistant surgical masks from donated surgical drapes. Although we were working hard to increase access to filtering facemasks, we also found that standard fluid resistant facemasks used for routine patient contact were also in critically short supply, and these offered a low-cost, locally-produced, effective solution.

In addition, thanks to a kind donation from Brighton and Sussex University NHS Trust, Ceramic Designs Laboratory, Intersurgical Ltd and many generous children and families of Brighton and Hove, we were able to provide adapted scuba masks with filters for use in COVID-19 centres and other high-risk clinical areas.

Shield Force, an Edinburgh-based group of researchers, engineers, academics and clinicians, kindly donated 400 3D printed face shields early on in this campaign as well.



We sourced and made vital PPE items now supporting anaesthesia providers and other multidisciplinary staff across all hospitals providing surgery in Zambia.











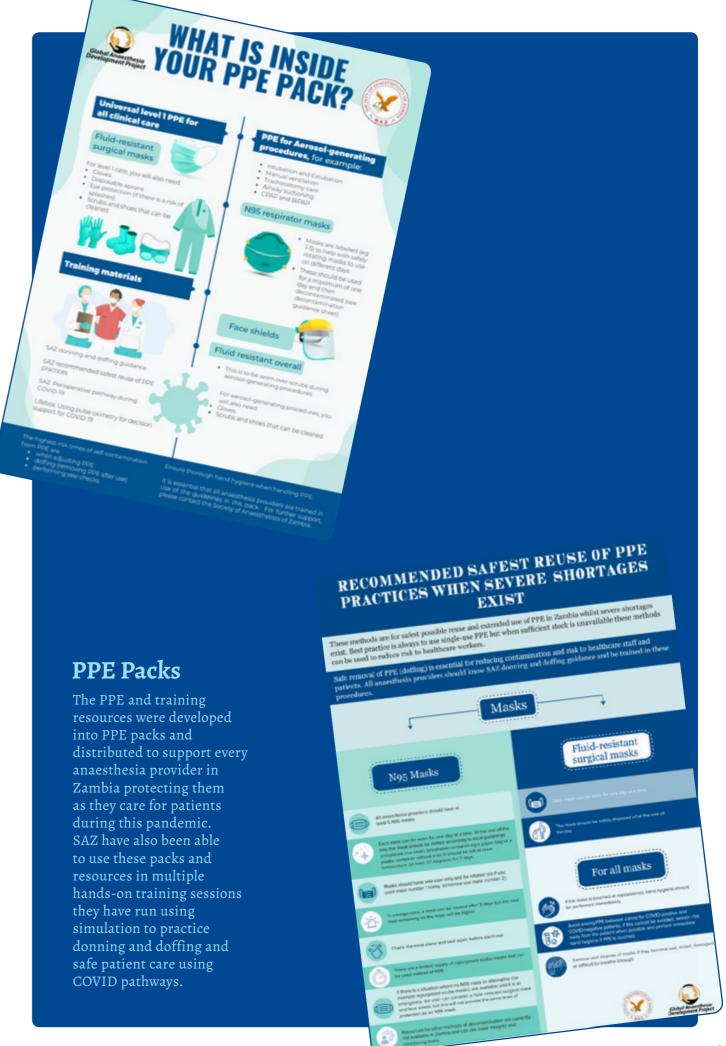




We delivered beyond physical resources.

SAZ and ZADP produced local guidelines developed for the Zambian context using international research and shared practice. This included:

- 1. What's in your PPE Pack?
- 2. SAZ COVID-19 emergency intubation guidelines
- 3. WHO COVID-19 checklist
- 4. SAZ standard operating procedures during COVID-19
- 5. Recommended safest re-use of PPE practises when severe shortage exist
- 6. Donning and Doffing of PPE









Surpassing our initial expectations this project provided PPE items for multidisciplinary staff across Zambia:

ZADP's PPE project supported all 247 anaesthesia providers in Zambia with vital PPE across all 83 hospitals providing surgery. We also provided additional PPE resources to all 83 hospitals supporting other healthcare staff.



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Zambian hospitals provided with PPE support



Anaesthesia providers supported with PPE



Training Capacity

A high-quality training programme needs well-resourced spaces for teaching activities, for private study and for training programme directors to be able to meet to make developments in the programme and to administer examinations.

This has never been so important as during this pandemic, where training programmes have become even more stretched in resource and capacity as the result of the clinical demands anaesthesia providers have encountered.

As part of a ZADP project, funded by UK Aid from the UK government, to support training capacity of a new training programme at Ndola Central Hospital, we have worked to develop learning spaces at both training sites with facilities for remote learning and linking of teaching events between institutions.

Huge refurbishments have already

been completed dealing with challenges such as water leaking, broken windows and a lack of study space and meeting facilities, making these now comfortable, well-facilitated places to learn. In addition, thanks to an award we gratefully received from the BMA Information Fund, our partnership has received a number of new anaesthesia textbooks for these training rooms, supporting anaesthesia trainees even further in their learning. We will continue to develop these spaces with improved facilities for remote learning and more teaching space during 2021.

Training room renovation:

Before









Wellbeing

COVID-19 brings new challenges for anaesthetists everywhere, and supporting the wellbeing of all partners as they continue to care for patients at this difficult time was identified as an essential partnership need.

In 2020 we created two core systems to support wellbeing:

1 Buddy System

We set up a network of support pairing each Zambian partner with a past ZADP anaesthetist volunteer to check up on each other and provide a listening ear whilst each is experiencing the challenges their home healthcare system faces.

In addition to the pastoral benefits, it was also an opportunity to share information and collaborate on particular ideas too.



Wellbeing Resources

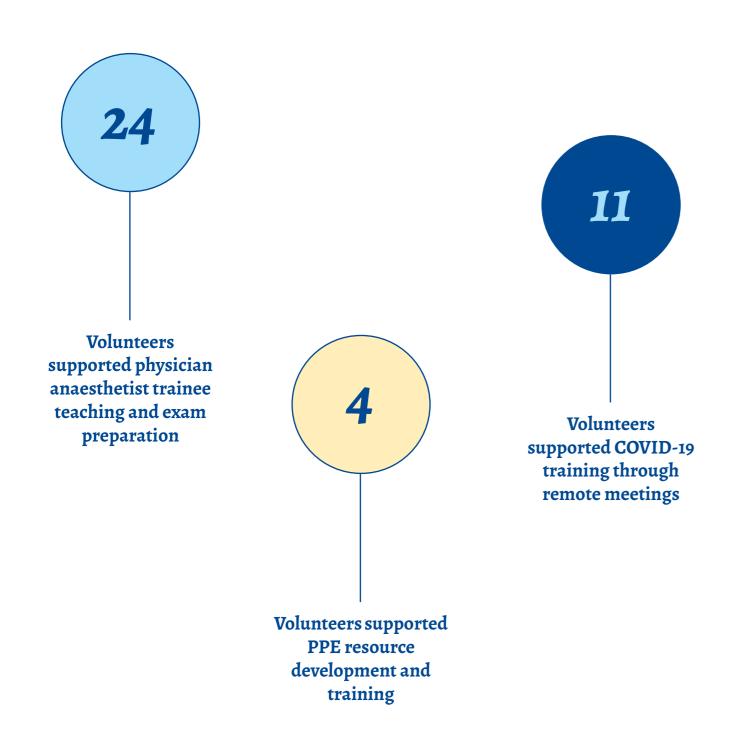
Using a number of online tools developed for different healthcare contexts, ZADP developed new resources and worked with other authors to adapt existing resources concerning anaesthetist well-being.

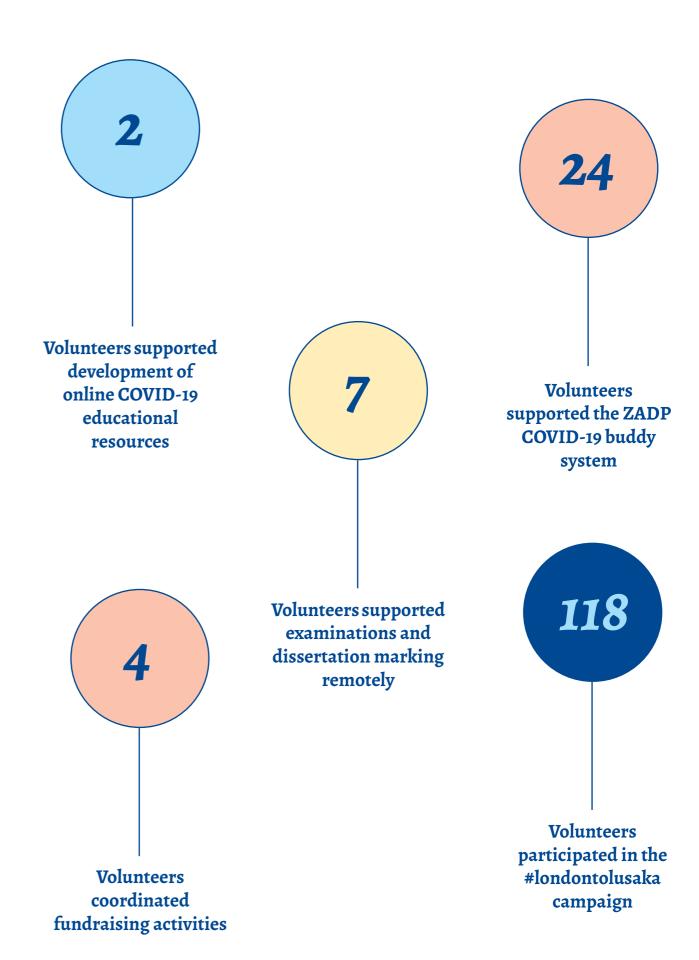
- COVID-19: psychological considerations
- Supporting anaesthesia providers in your department during COVID-19
- Sleep in the time of COVID-19

These resources are open-access and available on our website and WFSA COVID-19 resources pages.



So many people have volunteered for ZADP during the COVID-19 pandemic:





Case Studies

The personal stories behind ZADP's 2020

Stories from:



Gwen Williams, ZADP Project Coordinator



Dr. Hazel Mumphansha Sonkwe & Dr. Lesley Crichton, GADP Trustees



Dr. Arthur Polela, Senior Registrar



Zambia Anaesthesia Development Program (ZADP) PPE distribution in Zambia.

COVID-19 has already taken its toll on Africa. Despite rapid responses to control movements of people and goods, as well as encouraging social distancing, the pandemic has spread across the continent. According to the World Health Organisation, one of the biggest challenges in Africa continues to be the availability of essential medical supplies, particularly test kits as well as personal protective equipment for health staff. (Source: WHO coronavirus disease (COVID-19) dashboard. Geneva: World Health Organization, 2020.)
It has been reported that at least 7,000

healthcare workers have died globally after contracting COVID-19 and in July 2020, WHO reported that health workers' infections make up more than 5% of cases in sub-Saharan Africa alone (Source: World Health Organization).

The ZADP PPE distribution campaign is essential, as it's focussed on ensuring that critical, limited and often unmentioned anaesthetists are provided with the much needed PPE at the crucial time of escalating COVID-19 cases.

As a direct response to the COVID-19 global outbreak, ZADP mobilized financial and

material resources through voluntary donations and local-production to help mitigate the transmission of COVID-19 amongst anaesthetists in Zambia. PPE packs comprising of face shields, N95 masks, surgical masks, washable gowns, scuba masks and fluid-resistant material masks were packed for distribution to anaesthetists across the country, in both rural and urban areas.

Over the course of the last nine months, packs have been distributed across distances spanning more than 3000km of Zambia including the most rural of locations.

What has been the reaction from the recipients of these generous gifts? Chimuka Shachiboola, a young female non-physician anaesthetist in a small rural town of Senanga located some 800km from the capital Lusaka, expressed her delight for her PPE which she least expected "thank you for my PPE pack and I urge you to continue to donate to others in need" she echoed. Working at Senanga General Hospital as the only anaesthetist, Chimuka is just one of the many brave faces that are working tirelessly with limited equipment in dealing with life or death interventions, made much harder with the advent of COVID-19.



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Over the course of the last nine months, packs have been distributed across distances spanning more than 3000km of Zambia including the most rural of locations.



Just another 208km south of Senanga, at a town called Sesheke, are two non-physician anaesthetists, Webby Mukuka and Kenny Kaingu, who have both braved the scorching Sunday sun on their day off to receive their PPE packs. Webby and Kenny are both based at Yeta District Hospital, another one of the many unfunded but increasingly busy rural hospitals. Smiles and gestures of appreciation radiate showing just how important this gift is to them, especially that it could the difference between contracting COVID-19 as a consequence of being a front-line worker and not.

These are but a few of the many faces of brave men and women working graciously in both rural and urban Zambia, day and night, ensuring that their communities receive the best possible service notwithstanding the challenges that the COVID-19 has further heaped on them. As limited as some of the facilities may be, their never ending smiles and contagious opportunism should be a rallying cry to secure further support for these facilities during the pandemic, because they really do make a difference where it matters.



Dr. Hazel Mumphansha & Dr. Lesley Crichton are GADP Trustees and the current and past academic leads of physician anaesthesia training in Zambia

During the COVID-19 pandemic it has been essential to keep the assessment process for postgraduate anaesthesia in Zambia going; like the rest of the world, there was no appetite to delay career progression of trainees. In addition, we were preparing to assess a large cohort of final year trainees who were hoping to complete their specialty training in Anaesthesia and Intensive Care. In a country where specialist physician anaesthetist density is critically low, as it is in Zambia, doctors being supported in completing training programmes like the MMed and STP Physician Anaesthesia

programmes are vital ensuring continued growth of the specialty and the development of safer surgical care nationally.

Examinations consist of a written paper, a viva (interview) and OSCE (objective structured clinical examination; practical stations to demonstrate clinical skills).

These each presented unique challenges for faculty in the COVID era. Our global partnership usually functions by having several international teaching fellows present in Zambia to support teaching, exam practice and assessment, both for numbers but also for quality assurance. Without

face-to-face international support, it became rapidly evident that we needed to adapt examination activities to remote platforms but still ensuring the same level of high-quality assessment essential for graduating safe, highly-skilled specialists. This wasn't the only challenge. Part of the programme involved examination of a Masters-level research project through a dissertation and oral presentation. Continuing to support this is essential for supporting trainees in developing key research skills and increasing the high-quality anaesthetic research coming out of Zambia.

We were able to conduct teaching and exam preparation sessions online which actually improved access and ensured that social distancing measures were adhered to within Zambia. In addition, we set up remote examiners to take part in the OSCE and viva exams, as well as the dissertation presentations. This went well and was considered to be one of the unexpected positives of the pandemic. Examiners who would not usually be in

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Through such a challenging year, we can celebrate the first fully-locally led examination period in Physician Anaesthetist training in Zambia.

Zambia were able to take part from home, and verbal feedback from both examiners and trainees has been positive.

It has been wonderful that through such a challenging year, we can celebrate the first fully-locally led examination period in Physician Anaesthetist training in Zambia, as well as the completion of training of a number of highly-skilled specialist anaesthetists.

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Exams in the times of Covid-19.

It has been such a tough year and I doubt anyone would have anticipated that we would be faced with a pandemic in a way that Covid-19 has impacted everyone's life. And it had to be in my final year of Anaesthetic training. Through it all we learned many lessons, many of which, we will carry for a lifetime. One such lesson is that there is a lot of good will out there. We saw many synergies work towards providing the best possible care for those that were inflicted by the deadly virus even when the situation was out of control.

Our partners from the UK, ZADP, played a

vital contribution. Having been ahead of Zambia in terms of the stage of the pandemic, we were able to learn from their experiences seeing Covid-19 patients, months before we were caring for patients here in Zambia. The network with these partners which has developed and grown over close to a decade has been a gift that keeps on giving. Not only did we have the privilege of learning from the experiences but also from donations such as PPE that have so far been helpful in protecting our health care providers even in places as far as Luwi in the North-western province. We are grateful for all those that made this



possible.

Despite all that has happened, it was still important that our exams were conducted and I was relieved by the decision to get on with exams. Over the years, Zambia has made progress in building capacity and growing towards self-sufficiency in training of specialist anaesthetists and I am sure everyone involved will agree with me on this. With a huge shortage of specialists, the option to delay the graduation of six specialists for at least another year was simply a cost that could not be taken, especially as all the candidates had met the criteria to sit for the exams. The only barrier was conducting an exam safely, in the middle of the pandemic.

Of course, it was never going to be easy or straightforward. The preparations were less than ideal. With a preexisting shortage of specialists, and being cardinal in the response to the pandemic, we were faced with working long hours in the isolation areas while still supporting regular emergency and urgent anaesthetic care. We had to adjust quickly to online lectures and presentations; this was complicated further by erratic internet service. Group discussions couldn't be had, viva practice was a challenge and practical simulations were impossible. Staying focussed was a challenge as there was always a new up-date on the corona virus- a new paper from Oman, a case study from China etc. It was tempting to always be up-to-date with the latest information. The emotional trauma from being so powerless and many times clueless on how to manage different situations in

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The option to delay the graduation of six specialists for another year was simply a cost that could not be taken.

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the pandemic. Despite all this, everyone involved was determined to get on with it

The exams were conducted successfully with several international examiners and observers in such a professional way and perhaps this was one of the positives of the times. The conduct of training and assessment of trainees is likely to change for the better going forward as a result of the lessons learnt in this period. On a personal level, seeing how helpful everyone was, all that good will gave me more motivation to get on with it and sit for the exams and be able to take part in providing care for these patients at a level that would otherwise be difficult without having finishing with training. I simply wanted to get the training out of the way and focus on serving. Besides, it was beginning to seem like we would have to learn to live with this thing and in my mind I could not and still can't see us going back to the pre-COVID normalcy in the short term. Now that the exams are behind us, we can focus being a part of the growth of the profession and the global anaesthesia agenda, not just limited to caring for critically ill COVID patients on ITU.

66 Quotes from9 ZADP friends:

"The PPE was godsend for us in the department as the hospital couldn't provide constant N95s and shields for theater staff - so the ZADP contribution really helped keep people safe in theater/ ICU. And of course I'm sure it really helped theater staff outside of UTH as well - wherever it was distributed."

- Dr. Zubair Rakhda, Consultant Anaesthetist "When I was visiting, I found these at Luwi Mission Hospital, deep in North Western province about 220 km from Solwezi and about 80 km off road. It is so good to see how far these PPE packs have reached so they can support all anaesthesia providers in Zambia. Well done everyone involved!"

- Dr. Masuzyo Zyambo, Consultant in Anaesthetics and Critical Care

"We can still fall back on the links created in the ZADP partnership in the start. I have learnt that at the centre of partnerships is humanity and love. I think it's these things that informed what was prioritized this year."

- Dr. Hazel Mumphansha Sonkwe, Consultant Anaesthetist, Physician Anaesthesia Program Lead, GADP Trustee



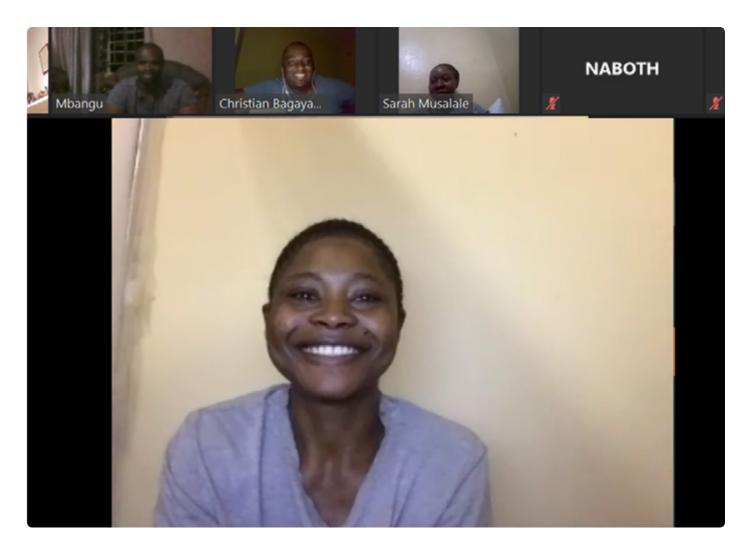


"Our partners from the UK, ZADP, also played a vital contribution. Having been ahead of Zambia in terms of the stage of the pandemic, we were able to learn from their experiences seeing Covid-19 patients, months before we were caring for patients here in Zambia. The network with these partners which has developed and grown over close to a decade has been a gift that keeps on giving. Not only did we have the privilege of learning from the experiences but also from donations such as PPE that have so far been helpful in protecting our health care providers even in places as far as Luwi in the North-western province."

- Dr. Arthur Polela, Senior Registrar in Anaesthesia, University Teaching Hospital, Zambia

"The Zoom and WhatsApp Videoconference facilities have been really useful for remote mentoring and training sessions. Obviously, I haven't been able to travel to Lusaka this year given COVID-19's impact. But I've managed to have some really successful discussions through our team meetings with the critical care consultants in and around Lusaka. We've been able to share a lot of learning from our UK experience as cases began to rise in Zambia. As always though, the learning was bi-directional and I took many useful points for our practice in the UK. We continue to grow and develop our experience of how international partnerships can support each other during this pandemic."

- Dr. Dave Snell, Consultant in Anaesthetics and Critical Care, UK





Fundraising: London to Lusaka

Providing financial resource to support vital partnership work.

London to Lusaka was a onemonth international campaign led by the Global Anaesthesia Development Partnerships charity throughout the month of October, campaigning to ensure the essential role of international health partnerships and the importance of safe surgery remain on the global agenda, and raising vital funds to continue project work for both the ZADP and EADP partnerships in Zambia and Ethiopia. 118 participants across 6 countries completed 1,689 exercise activities achieving the total virtual distance of 23,575.74 km representing the distance **from London to Lusaka** via Addis

Ababa, and then back to London, representing the key locations of GADP's work. And that is not all...the challenge was completed three days ahead of schedule, and raised £8,268 of funds! Campaigns such as this help our partnerships grow by increasing the funds available for project work and management, as well as supporting the growth of the GADP charity through broader awareness and participation. These funds have already supported our PPE project, supported refurbishment of the training rooms in Ndola Teaching Hospital and have helped expand our resources for online training.







Other Fundraising



Supporting our personal protective equipment campaign

In support of personal protective equipment we raised:

- £7,500 in online and personal donations
- £5,000 through a THET Healthworker Action Fund award

Thank you to everyone who kindly donated to our PPE and other campaigns this year. Your generosity has helped to get vital support to where it is needed the most ensuring front-line anaesthetists are protected as they care for patients during this pandemic. Your generosity has

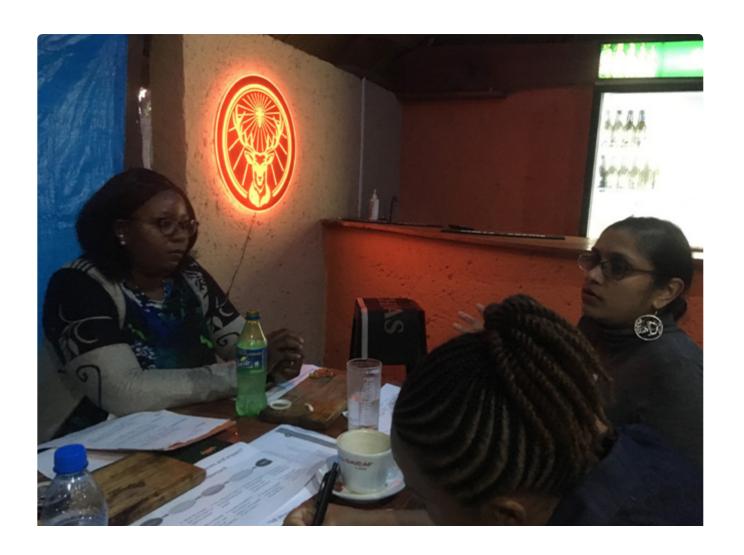
also ensured ZADP can continue its support for its partners for anaesthesia training and essential quality improvement work despite the pandemic.





Emirates Foundation Flights Award

The Emirates Foundation have kindly awarded us with ten flights for volunteer visits for training and practice development when travel resumes.



Africa Grants Programme

ZADP has gratefully been awarded an Africa Grants Programme award in support of a project to develop a regional anaesthesia service at University Teaching Hospital, Ndola Central Hospital and Arthur Davison Children's Hospital, Zambia. The Africa Grants Programme is funded by the Johnson & Johnson family of companies and managed by THET. This grant application was developed during a grant writing workshop we held within our partnership, in which Zambian participants learnt skills associated

with developing project proposals and a theory of change, and then chose the proposal they felt was the immediate priority and linked with their local strategy.

This project was chosen to offer a safe, more economical and sustainable anaesthetic technique for appropriate cases, therefore conserving resources for general anaesthesia for when this is necessary.



Learning from 2020

Although 2020 has been a challenging year for ZADP and partnerships globally, there have been numerous outcomes to be proud of.

In August we saw the first fully locally-led examination period for physician anaesthesia training in Zambia, graduating another cohort of specialist physician anaesthetists to help lead the growth of anaesthesia. This was followed up by a second locally-led exam period in December for junior trainees.

The greater use of remote teaching support, as well as COVID-19 training sessions and the buddy system, has created opportunities for past ZADP volunteers and supporters to be involved in the training programme and partnership COVID-19 response. This had a positive impact on trainees who could see that the partnership valued the importance of their training, despite facing such difficult clinical circumstances.

Sharing clinical case examples from all partnership countries helped us share ways for facing the clinical demands placed upon us. We all valued hearing many case examples of critically unwell patients we had encountered who survived COVID-19 with good outcomes.

Partners and supporters were also brought together through our fundraising and campaigning activities. The #LondontoLusaka campaign achieved more supporters, more kilometres and more vital funds than we ever imagined, and enabled our partnership to grow even closer despite being separated by distance at this time. Finally, we learnt about our own capacity as a partnership to adapt, improvise and overcome. When the pandemic first emerged it was difficult to recognise how we could provide meaningful support in the face of such challenge, but we learnt to identify and make use of our strengths. We worked together to make an honest assessment of where we could make a difference and we focused support on training, collaborating with community groups, and supporting friends. Now we enter 2021 a stronger partnership ready to continue to support anaesthesia and critical care through this pandemic and in the building of safe surgical systems globally.













You can support ZADP by:

Volunteering your skills and time.

Please email to find out more: infogadp@gmail.com

Donating to support vital project work.

Scan the QR code or visit: gadpartnerships.com/donate



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ZADP would like to thank the following organisations and collaborators for their support during 2020:

Society of Anaesthetists of Zambia

World Federation of Societies of Anaesthesiologists

International Relations Committee, Association of Anaesthetists, UK

Tropical Health and Education Trust

Inspire through Clinical Teaching

Overseas Healthcare Leadership Programme

LusakaHelps

Barefoot Theatre

Shield Force

Intersurgical Ltd

Department of Anaesthesia, Brighton and Sussex University NHS Trust

Beaumont Music

Mannion Daniels

UK Aid Direct

British Armed Forces

Ceramic Designs Laboratory

British Medical Association Information Fund

Families of Brighton and Hove who have generously donated PPE equipment

And all supporters who have made donations or volunteered their time to support our work this year

