

# IMPACT REPORT ON AN INTERNATIONAL INSTITUTIONAL HEALTH RESEARCH PARTNERSHIP

## 1 YEAR INTO THE COVID-19 PANDEMIC

Leading Partners:

Lusaka College of Nursing  
Birmingham City University



Ministry of Health



## ABBREVIATIONS

BCU	Birmingham City University
GCRF	Global Challenges Research Funding
GNCZ	General Nursing Council of Zambia
HWAF	Health Worker Action Fund
J&J AGP	Johnson and Johnson Africa Grants Programme
LMMU	Levy Mwanawasa Medical University
MOH	Ministry of Health
NHRA	National Health Research Authority
NHS	National Health Service
PPE	Personal Protective Equipment
THET	Tropical Health and Education Trust
WHO	World Health Organisation
UKRI	UK Research and Innovation
UNZA	University of Zambia
UNZABREC	University of Zambia Biomedical Research and Ethics Committee
ZUNO	Zambia Union of Nursing Organisations

# CONTENTS

Abbreviations	2
Contents	3
Introduction	4
Theory of Change	5
Timelines	6
Specific Project Outputs	8
Publications and Reports	11
Lessons Learnt	12
Planned Activities for 2021	13
Acknowledgments	14



▲ Personal protective equipment

## INTRODUCTION

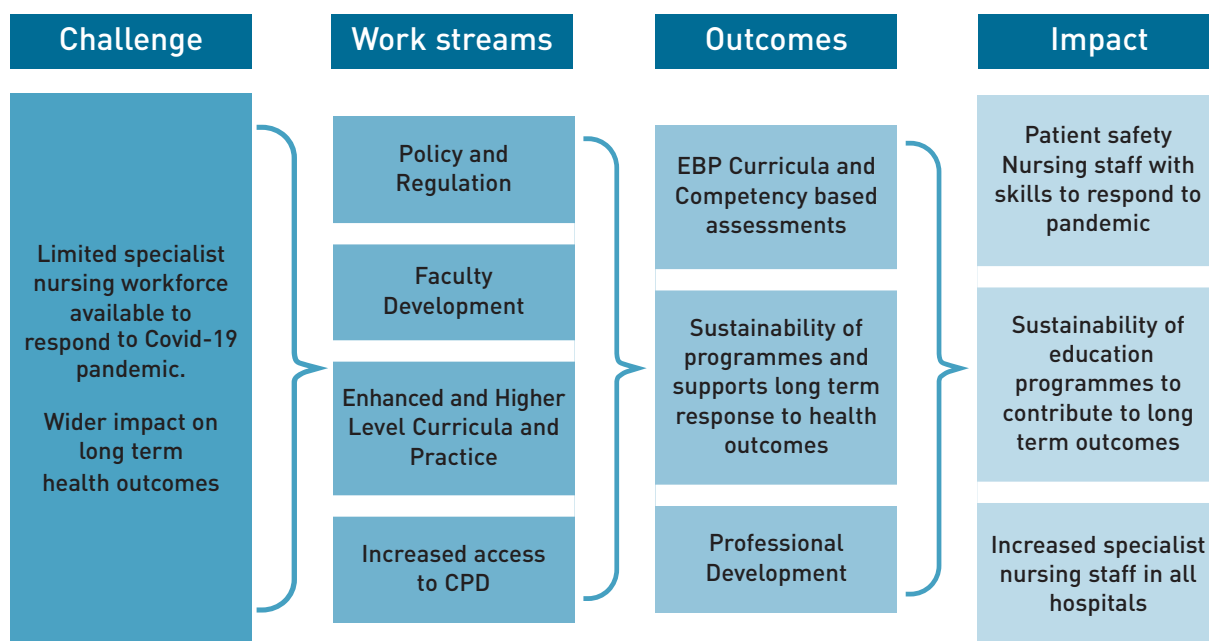
The first case of Covid-19 was identified in Zambia March 2020, since then the number of confirmed cases and deaths has risen with a sharp increase in cases in January 2021. The Covid-19 pandemic has highlighted trauma, emergency and critical care nurses are crucial to the pandemic response, with increasing numbers of patients presenting at hospitals throughout the country, where there are few specialist doctors. Therefore, nurses are taking and sustaining, a leading role.

Nurses are the only professional group who are present at every stage of the patient pathway, from initial contact in a rural health clinic or emergency and trauma services through inpatient services to discharge and rehabilitation. As a result, individually they have more patient contact than all other professional groups combined. To meet the World Health Organisation (WHO) (2020, 2009) recommendations nurses need to have increased capacity in leadership, management and clinical decision-making. These attributes, essential to prevent healthcare systems becoming overwhelmed enable nurses to identify and respond appropriately to the rapidly changing health needs that arise during outbreaks of infectious diseases and pandemics. They include the ability to develop and implement strategies for containing infected cohorts and preventing the disease spreading.

Specialised critical care training only commenced in Zambia in 2012. Since inception of the partnership in 2015, Birmingham City University has supported national development of the provision of critical nurse education to degree level. Trauma and Emergency Nursing (TEN) specialist training commenced in 2018 at the Lusaka College of Nursing (LUCON). In consequence, specialised nurses are very overstretched, as they are supporting their new colleagues in emergency departments, as well as covering shifts on critical care.

**“Our cooperating partners BCU understand our prevailing situation as a low income country such that even when issues are presented there is no biases we work hand in hand and come up with a consensus”**

# THEORY OF CHANGE



▲ A teaching session

## TIMELINES

2020						
Month	March	April	May	June	July	August
Key Events	Who declares global pandemic. First recorded cases in Zambia.		THET approached BCU regarding Covid-19 outbreak in Zambia. Concept Paper written.	THET Blog raising the issues of Covid-19 in Zambia.	Memorandum of Understanding signed with MOH	Partners discuss HEE Bursary application Submitted.
HWAF		Contacted by partners re: HWAF bid. Application submitted.	HWAF activities commenced.	Rotary Club Solihull provide grant for PPE for staff and students at LUCON	HWAF continues.	HWAF continues.
GCRF		Datasets shared with MOH to assist with Covid-19 response.			Ndola College of Nursing attend UK Study Tour.	
J&J AGP						
UKRI/Newton						UKRI/Newton Agile Response Project starts.

“We are really pleased because re-doing the National Strategic Plan and all your projects are part of the documents used for strategic planning”

2020					2021	
Month	September	October	November	December	January	February
Key Events		WHO learning Hub submission.	Further meeting with THET	HEE Bursary awarded.	Spike in Covid-19 cases.	
HWAF	HWAF continues.	HWAF continues.	HWAF continues.	HWAF report.		
GCRF	Datasets reviewed and presented to MOH		LUCON meeting UK		GCRF Impact Case Study submitted.	
J&J AGP	BCU support project activities in Zambia.			J&J AGP Project completes.		
UKRI/ Newton	UKRI activities commence.	UKRI activities continue.	UKRI activities continue.	UKRI activities continue.	UKRI activities continue. BCU completes urgent needs assessment.	UKRI activities continue.

“It has been a pleasure and privilege to work with you all and at the Ministry we are excited about implementing the project”

# SPECIFIC PROJECT OUTPUTS

## Project Activity, Details and Aim

Project Details: Johnson & Johnson Africa Grants Programme	Outcome
<p><b>Aim:</b> To implement into policy and practice Bachelor level critical care nursing.</p> <p><b>Dates:</b> March 2019 – November 2020 (No cost extension due to Covid-19)</p>	<p>National philosophy for critical care nursing, developed and accepted.</p> <p>Pedagogical approach for education and training developed and accepted (Spiral Curriculum).</p> <p>Core competencies for all Bachelor's Level Critical Care Nurses developed and agreed.</p> <p>Development of and training for critical care lecturers in higher level clinical competence assessments.</p> <p>Development of the first clinical mentorship model for Zambia, developed from international resources (including pan-Africa sources). The model has been accepted as appropriate for critical care nursing and is being translated for use in other programmes.</p> <p>Mentorship model has been accepted as a core component of critical care nurse education and is a formal element of the new curricula.</p> <p>Recognition and acceptance of a transferable career structure for critical care nursing.</p> <p>Recognition and acceptance of the role of prior education and training in career progression and future education.</p> <p>For Levy Mwanawasa Medical University, the first specialist critical care nursing bachelor's degree.</p> <p>Masterclasses on key critical care and trauma areas of practice:</p> <ul style="list-style-type: none"> <li>• Resuscitation Council (UK) Immediate Life Support Course</li> <li>• Major Incident Planning</li> <li>• Trauma and burns</li> <li>• Advanced Haemodynamic monitoring</li> <li>• Sepsis and Septic Shock</li> <li>• Research</li> </ul> <p>Bonus activity as a result of exchange rate change, additional training activity for educators to enable them to gain expertise in peer assessment of competence.</p>
Project Details: Solihull Rotary Club, UK	Outcome
<p><b>Activity:</b> Rapid provision of Covid-19 personal protective equipment</p> <p><b>Dates:</b> April 2020 – August 2020</p>	<p>Provision of 30 sets of personal protective equipment for critical care nurses at UTH.</p>

Project Details: Tropical Health & Education Trust. Health Worker Action Fund	Outcome
<p><b>Activity:</b> Development of a context specific COVID-19 training package for healthcare workers at the Lusaka College of Nursing and Midwifery and The University Teaching Hospitals.</p> <p><b>Dates:</b> May 2020 – November 2020</p>	<ul style="list-style-type: none"> <li>• Zoom subscription has supported virtual meetings throughout the pandemic.</li> <li>• Nurse educators at LUCON trained not just trained in Moodle, but also how to upload, edit and deliver programmes via Moodle.</li> <li>• IT personnel given additional training on mentoring nurse educators in the use of Moodle, to support teaching staff and provide ongoing guidance and technical advice.</li> <li>• All nurse educators given additional training in Covid-19 specific prevention, identification and nursing response strategies.</li> <li>• Additional bonus outputs:             <ul style="list-style-type: none"> <li>– Hand hygiene practical provided an innovative student centred learning activity.</li> <li>– Hand hygiene training equipment now embedded into Objective Structured Clinical Examinations.</li> <li>– IT personnel now supporting transfer of additional programmes onto Moodle.</li> <li>– Submission to the WHO learning hub.</li> <li>– Blog written with partners for THET.</li> </ul> </li> </ul> <p>Development of the training materials (2 day workshop) = 28 Moodle train the trainers workshops (1 day workshop x2) = 60 Cascade training to students and UTH staff:</p> <ul style="list-style-type: none"> <li>• Public Health Nursing Students (pre-service) = 252</li> <li>• Registered Nurse Midwifery (pre-service) = 369</li> <li>• Registered Nurses (pre-service) = 97</li> <li>• Trauma and Emergency Nursing (in-service) = 18</li> <li>• Theatre Nursing (in-service) = 32</li> <li>• Midwifery (in-service) = 77</li> <li>• HIV nurse practitioner (in-service) = 57</li> <li>• Critical Care Nurses (in-service) = 30</li> <li>• Clinical Instructor (in-service) = 9</li> <li>• Paediatrics (in-service) = 32</li> </ul>

Project Details: UKRI/Newton Agile Response Fund	Outcome
<p><b>Activity:</b> Development of a Zambian context specific short and long term model for managing COVID-19 pandemic and future infectious disease outbreaks.</p> <p><b>Dates:</b> August 2020 – January 2021</p>	<p>This project is currently in progress. Activities to date have included establishing national steering groups and preparing for the national e-survey of nursing practice in Covid-19.</p>

Project Details: GCRF	Outcome
<p><b>Activity:</b> Completion of a national workforce survey and evaluation into staffing, service provision and trauma, emergency and critical care patient case-mix in Zambia.</p> <p><b>Dates:</b> October 2019 – August 2020</p>	<p>Point of prevalence national workforce planning survey 19 hospitals (16 public and 3 mission) throughout Zambia.</p> <ul style="list-style-type: none"> <li>• Trauma and Emergency needs assessment</li> <li>• Situational analysis of critical care bed capacity and equipment summary (comparative review of baseline datasets from 2016).</li> <li>• Two anonymised patient datasets <ul style="list-style-type: none"> <li>– Attendance and admission rates</li> <li>– Reason for admission, illness severity and outcomes from critical care units.</li> <li>– 63 case studies (43 adults, 3 maternal and 17 paediatrics).</li> </ul> </li> <li>• National survey for MOH of nursing morale and practice to support WHO and ICN 2020 Nursing Now campaign: <ul style="list-style-type: none"> <li>– 173 nurses completed a confidential survey into their role to provide quantitative and qualitative datasets.</li> <li>– 114 nurses participated in focus groups to explore in-depth understanding on the role of nurses in all specialities.</li> </ul> </li> </ul>



▲ Handing over of equipment

## PUBLICATIONS AND REPORTS

### Publications, Blogs and Conference Papers

Carter C. Mukonka PS. Notter J. (2020). Looking back... looking forward: the impact of Covid-19: <https://www.thet.org/case-studies/looking-back-looking-forward-the-impact-of-covid-19/>

Carter C. Mukonka PS. Sitwala LJ. Howard-Hunt B. Notter J. (2020). The development of critical care nursing education in Zambia. *British Journal of Nursing*. 29. 9. 499-505

Carter C. Mukonka P. Sitwala L. Notter J. (2020). Is the use of simulation realistic in a low-middle income country? Poster presentation at the British Association of Critical Care Nurses virtual conference.

### Reports

Notter J. Carter C. (2020). UKRI Inception Report.

World Health Organisation. Covid-19: Health Services Learning Hub.

Carter C. Notter J. (2020). Concept Paper for a capacity building project to develop a context specific COVID-19 & long term model for preventing and managing future infection disease outbreaks for healthcare workers in Zambia. Birmingham City University.

**“The (UK) Partners allows beneficiary to own the project fully”**

## LESSONS LEARNT

2020 was a challenging year for the partnership. During the first few months of the pandemic both the UK and Zambia nursing and education teams were stretched, making it difficult to identify how we would move forward together. However, a strength of the partnership is the collaboration and commitment to learning from each other.

In late 2019, the partnership was awarded a Global Challenges Research Fund (GCRF) grant to complete a national workforce survey and evaluation into staffing, service provision and trauma, emergency and critical care patient case-mix in Zambia. The main activities were completed in February 2020 and an unexpected bonus output from this activity was it provided a comprehensive assessment of nursing services in every province prior to the pandemic and Zambia's first cases. Data from this study was shared with the Ministry of Health, early on in the pandemic to help with their Covid-19 preparedness.

As a recognised and successful international institutional health research partnership, THET reached out early to us as they explored the situation in Zambia. In conjunction with our partners a Concept Paper was written and shared with THET and provided the basis for our HWAF application. The HWAF allowed for the partnership to move to a virtual remote learning and allowed activities to continue. This has defined how we move forward as a partnership in terms of project management and activities.

Looking forward, our partnership is in a stronger position to support the capacity building of trauma, emergency and critical care nursing in Zambia.

**“The objectives of the partnership are clearly defined/explained to all institutions/person involved”**

## PLANNED ACTIVITIES FOR 2021

As the Covid-19 pandemic continues, the following partnership projects will be delivered:

- UKRI Newton Agile Rapid Response.
- Bachelor of Science (with Honours) Professional Practice (Adult Critical Care) programme (2 years). Commenced February 2021.
- Master of Science Professional Practice (Adult Critical Care) programme (2-3 years). Commenced February 2021.
- Health Education England (HEE) Volunteer Bursaries to support Faculties at LUCON and Ndola.
- Service evaluation of Health Worker Action Fund project.



▲ Group work

## ACKNOWLEDGMENTS

The core project team would like to acknowledge the contributions from the following individuals and organisations:

- Levy Mwanawasa Medical University
- Lusaka College of Nursing
- Ministry of Health Zambia
- Nursing and Midwifery Council Zambia formerly the General Nursing Council of Zambia
- Tropical Health and Education Trust, Zambia team
- Zambia National Public Health Institute
- Zambia Union of Nursing Organisations

UK organisations:

- Birmingham City University
- King's College Hospital NHS Trust
- Lewisham and Greenwich NHS Trust
- Tropical Health and Education Trust, UK team

**"You are our all weather friends and we know we can trust and rely on you"**



▲ Hand washing

“Transparency”

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