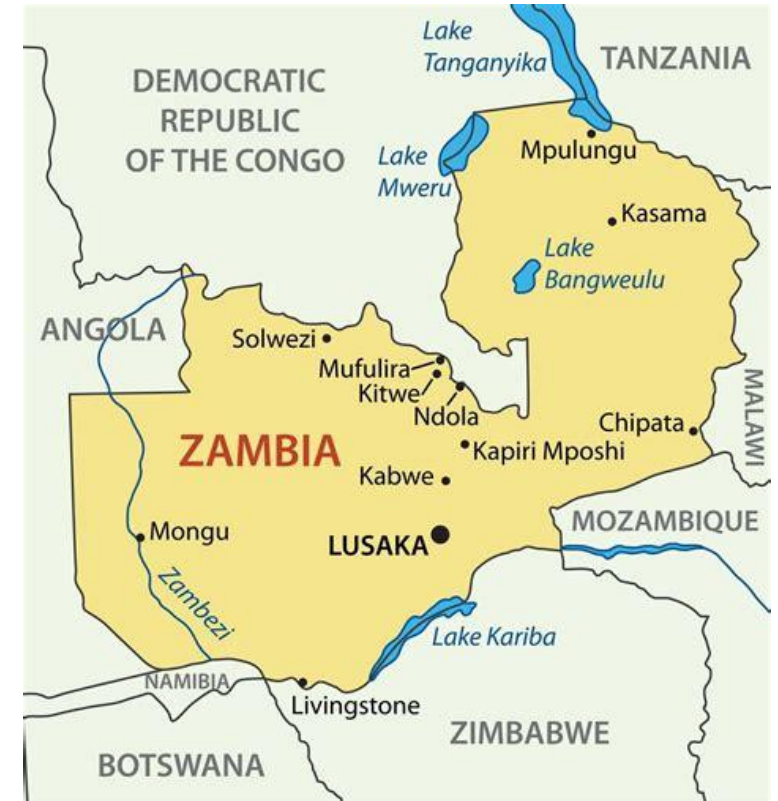


Recovery following critical illness project

Dr Chris Carter, Sabelo Maphenduka, Mwaka Chongwe, Prof Joy Notter
Birmingham City University, UK, Ministry of Health, Zambia; Critical Care
Nurses Association of Zambia

About Zambia

- Low middle-income country (World Bank, 2025a)
- GINI Index distribution of income and wealth 51.5 (World Bank, 2025b)
- One of the few African countries with a critical care nursing workforce (Macey et al., 2022)
- Education provider for the region with programmes from Advanced Diploma to Master of Science
- Currently approximately 90 critical care beds for 22 million



Current evidence of critical care in LIC

- Critical care associated with high mortality (Baker et al., 2025)
- Outcome from critical care is unknown (Notter et al., 2023)
- Studies relating to rehabilitation / post-intensive care syndrome (PICS) limited
 - Rizvi et al (2024) indicating that up to 84.6% of patients experience some form of impairment post-discharge.
 - Schofield-Robinson et al's (2018) Cochrane systematic review identified the need for more research into this topic from low- and low-middle income countries

Recovery for Intensive Care Survivors Engagement (RISE) project

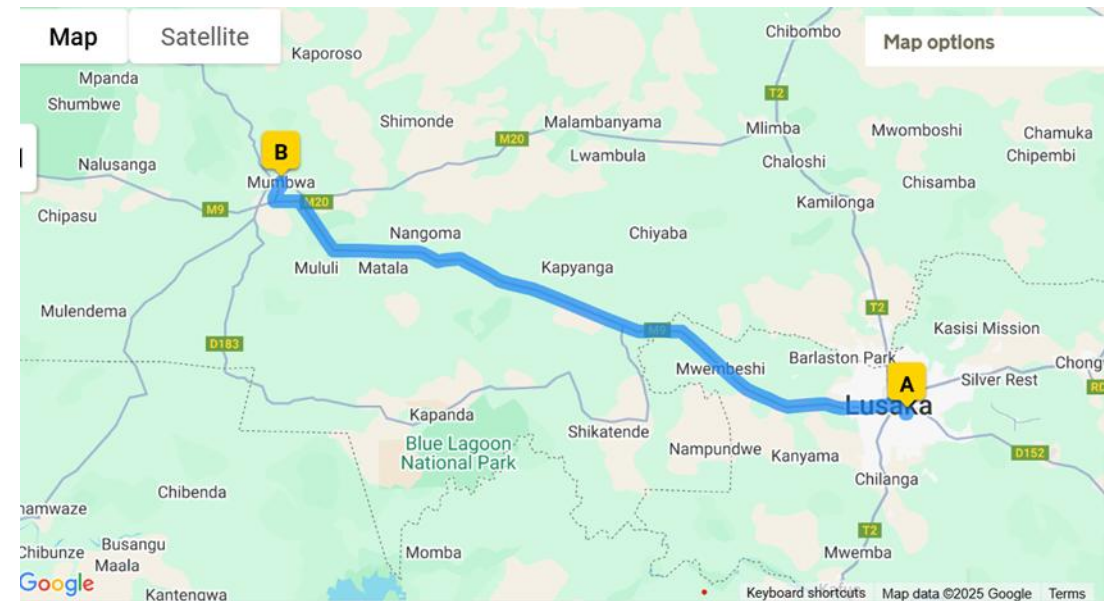
- Conducted in collaboration with the Ministry of Health in Zambia and the Critical Care Nurses Association of Zambia.
- Project involved following up patients recently discharged from an intensive care unit.
- Exploratory descriptive qualitative methodology was used to interview 10 patients and/or families (5 patients and 5 relatives)
- Themes that emerged encompassed the whole process from pre-admission (including access healthcare services) to care at home.

Vignette 1

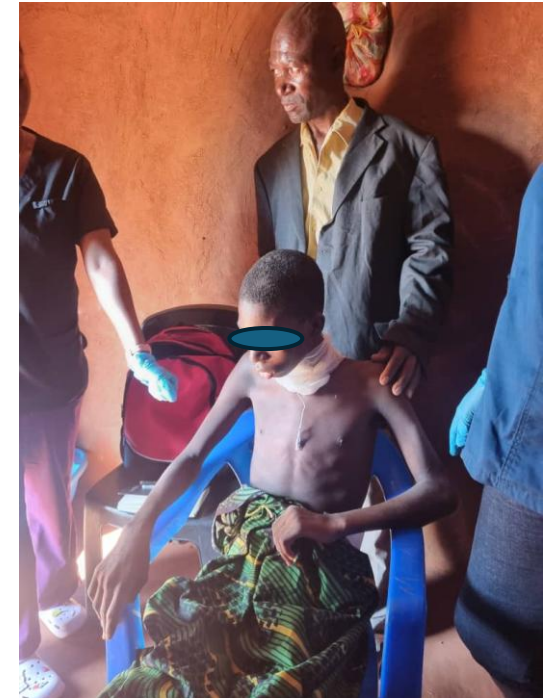
- 20-year-old-female orphan was involved in a road-traffic collision at 8 months pregnant.
- Severe injuries including a traumatic brain injury
- Emergency Caesarean Section performed at clinic, baby survived.
- Then deteriorated and transferred 700km (435m) to nearest neurosurgical facility, baby remained with father.
- Aunt travelled with patient to care for her – no other relative support from the village.
- Patient left with ongoing cognition issues and aunt was interviewed

Vignette 2

- A 15-year-old male was involved in a road traffic collision
- Following initial care in a clinic, patient was transferred to a referral hospital approx. 160km.
- Research team followed him up just prior to discharge and informed he was about to be discharged with a tracheostomy and naso-gastric tube insitu.



Has not sat up = 64 days



Realities

- Discharged for palliative care – however family not informed
- Follow up at UTH – could be followed up at a District Hospital
- No communication with Community Health Worker or Rural Health Post
 - Able to set up links with CHW and nurses at Rural Health Post
 - Nursing care and advice given to family, CHW and nursing team at rural health post



Access to healthcare

‘...they did a scan which showed she had pus in her head and we had to wait for a plane... but the plane never came... I waited 3 months...so ... I... decided to look for money and got on a bus and brought the child to [hospital]...’ (Participant 5)

‘...I was shot three times in the stomach and had to drive myself to the hospital... then I collapsed at the entrance... I regained consciousness following surgery in ICU and I was there for 23 days...’ (Participant 8)

Impact on the families

- *‘there is not enough food... we are given one meal a day and I give it to her... I have no family here who can bring me food...sometimes I have to go hungry’ (Participant 1)*
- *‘I have to do most of the basics including toileting’ (participant 1)*
- *‘What will happens now she lives in the village [her husband] is a peasant farmer what will happen ... who will look after her’ (participant 1)*
- *‘... my wife had to stop work to look after me as nobody came to help other than [my] sisters....’ (participant 5)*

Ward based care

‘...I had to do things I had never done before like giving drugs... but when I am not there and leave a younger bedside [relative] they make mistakes... you are told to buy drugs... nobody gets them... they make us give them and then nurses sign the chart...’ (Participant 4)

‘...the ward the staff members difficult to attend to patients concerns timely not sure if it is because to many patients ... two staff on duty for all the patients on the ward...’ (Participant 4)

‘...when I was discharged I had stayed in the walls of the ICU for a long time... immediately I went out because of the natural daylight I had a blackout ... I was not warned and it was so sudden it was something surprising ...’ (Participant 9)

Follow Up

*‘... so I have had to use my own initiative and I found a local clinic...
but nobody told me... I have to get bloods taken and then send the
bloods to the hospitals... I have to do it all myself...’*

(participant 5)

‘...When discharged its bye bye nothing to do with you...’

(Participant 7)

Advocacy Work



Centre for
International Health Partnerships

Recovery for Intensive Care Survivors Engagement (RISE) project: Healthcare Professional Views Report

Introduction

The Recovery for Intensive Care Survivors Engagement (RISE) project was a collaborative project with the Ministry of Health in Zambia, the Centre for International Health Partnerships and Birmingham City University. The study was designed to explore the experiences of healthcare professionals and patients in intensive care and looked at resources for patients and healthcare professionals.

Background

Post-Intensive Care Syndrome (PICS) poses significant challenges for intensive care survivors (LICs), where healthcare resources are limited. The ICU survivors, with studies indicating that up to 84% of survivors experience post-discharge (Rizvi et al., 2024). Many survivors are discharged but may still have ongoing complex care needs. In LICs, rehabilitation is limited. This situation exacerbates the challenges of addressing these issues effectively in LICs.

Aim

The aim of this evaluation by e-survey was to gain insights into the experiences of healthcare professionals and patients in intensive care.

Methods

The challenge of rehabilitation following critical illness in low-income countries

Joy Notter, Professor of Community Healthcare Studies, Birmingham City University, **Chris Carter**, Associate Professor, Birmingham City University, **Mable Nsonga**, Senior Theatre Superintendent, University Teaching Hospital, Zambia, **Mwaka Chongwe**, Tutor, Lusaka College of Nursing, Zambia

Rehabilitation 2030, an initiative of the World Health Organization (WHO) Initiative, was designed to elevate rehabilitation as an essential health service and a core component of universal health coverage (UHC), and in consequence advocates for 'strong leadership and political support for rehabilitation at sub-national, national and global levels' (WHO, 2023a).

In doing this, WHO (2023b) identifies rehabilitation as a crucial element of patient care and not an optional extra that is provided

care unit, with evidence demonstrating that rehabilitation for critical care patients remains inequitable, limiting quality of life and increasing disability in many LICs (Neill et al, 2023; WHO, 2023b).

It is accepted that rehabilitation following critical illness is complex in any setting. However, advances in health care, increasing access to healthcare services, the changing burden of disease, complications of long-term chronic diseases and increased life expectancy, all have implications for critical care and rehabilitation services.

However, specialist education programmes (which include rehabilitation) for critical care nurses remain limited (Macey et al, 2022). In addition, the paucity of allied health professionals, such as physiotherapists, dietitians and nutritionists, and the lack of roles for other professional groups, such as speech and language therapists, also limits rehabilitation and multidisciplinary working (World Physiotherapy, 2020). Nurses, often the largest group of the healthcare workforce in both critical care and general wards, are required to try to rehabilitate patients without

Giving Voice to Survivors

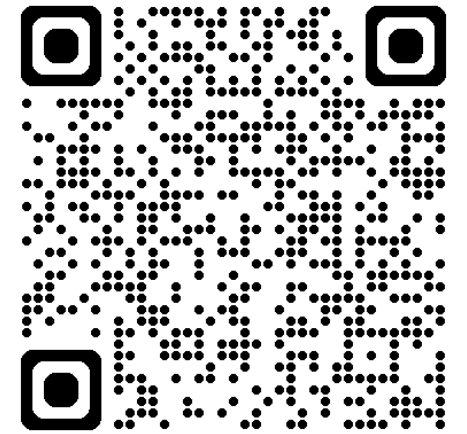


Conclusion

- Confirmed there is a high mortality = critical care is resource intensive
- This was a research study – but when we found a patient in need, research team needed to step in.
- Critical care rehabilitation needs to be developed in stages:
 - Healthcare professionals need to start rehab in ICU e.g. early mobilisation, proactive nutritional support.
 - Critical care units need to proactively follow up patients to get patients to hospital discharge.
 - Telephone support would be a start
- Urgent need for rehabilitation follow up
- Recovery does not end at discharge (from critical care / hospital) ... it is very often just the beginning of a long journey.

Low-cost, highly sustainable Enteral Nutrition Project

Help us to provide life-saving nutritional care in Zambian hospitals -
JustGiving



References

- Baker T., et al., (2025). The African Critical Illness Outcomes Study (ACIOS): a point prevalence study of critical illness in 22 nations in Africa. The Lancet, Volume 405, Issue 10480: 715 – 724. DOI: 10.1016/S0140-6736(24)02846-0
- Macey, A., O'Reilly, G., Williams, G., et al. (2022). Critical care nursing role in low and lower middle-income settings: a scoping review. BMJ Open. 12: e055585. doi:10.1136/bmjopen-2021-055585
- Notter J. Carter C. Nsonga M, Chongwe M. (2023). The challenge of rehabilitation following critical illness in low-income countries. Br J Nurs. 32 (21). DOI.org/10.12968/bjon.2023.32.21.1054
- Rizvi SHA., Haidri FA., Hassan M., Zaidi SS. (2024). Frequency and spectrum of Post-Intensive Care Syndrome (PICS) in survivors of critical illness in a tertiary care hospital in Pakistan. 31(6). DOI: <https://doi.org/10.29309/TPMJ/2024.31.06.8146>
- Schofield-Robinson OJ., Lewis SR., Smith AF., McPeake J., Alderson P. (2018). Follow-up services for improving long-term outcomes in intensive care unit (ICU) survivors. Cochrane Database of Systematic Reviews Issue 11. Art. No.: CD012701. DOI: 10.1002/14651858.CD012701.pub2.
- World Bank. (2025a). World Bank Groupings. <https://ourworldindata.org/grapher/world-bank-income-groups?mapSelect=~ZMB>
- World Bank.(2025b). GINI Index World. <https://data.worldbank.org/indicator/SI.POV.GINI?locations=1W>