



ザンビア心臓手術  
技術移転プロジェクトについて  
2017 -2023年



# ザンビア共和国の概要

- 人口約1,892万人（2021年）
- 平均寿命：64.19歳 世界170位
- 乳児死亡率：41.7/1000出生（日本は1.9）
- 高血圧の有病率：21%
- 糖尿病の有病率：25%

2030年には、心血管疾患が死因のトップになると予想されている。



# プロジェクト概要

## 目 標

ザンビアの心臓血管チームが年間50件の手術を行えるようになること

プロジェクトの始まり  
2017年9月

2023年12月までの進捗

ザンビア訪問12回、専門家のべ65名派遣

場所 ザンビア大学教育病院(UTH) 1-7回活動

国立心臓病院(NHH) 8-12回活動

日本での研修 3回（医師4名、パフュージョニスト2名）

# 国立心臓病院 (NHH)

## National Heart Hospital

(現在の活動場所)

2022年開院

循環器疾患専門病院（ザンビアで唯一）

心臓手術

冠動脈造影とインターベンション

腎移植

水と酸素プラントがある

非常用電源供給設備もあり

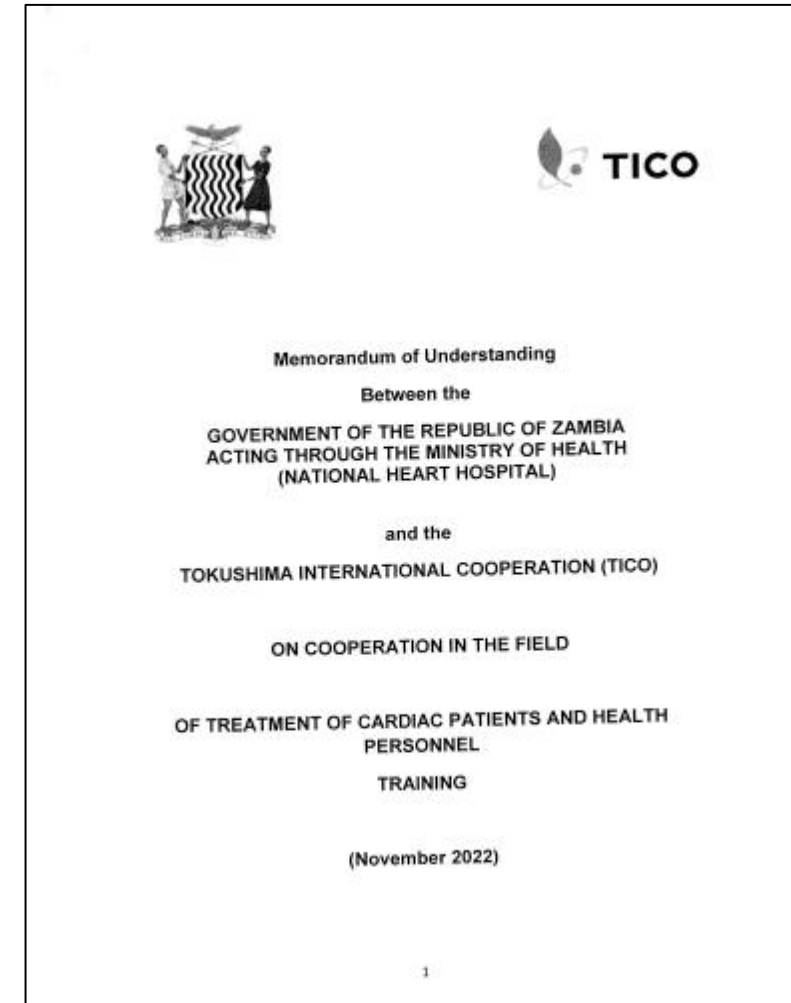


# 覚書（MOU）

TICOとザンビア保健省の間で覚書を締結  
覚書は日本大使館で調印されました。

## 【内容】

TICOは年に3～4回の活動を提供  
TICOのメンバーはザンビアのライセンスを取得  
しなければならない  
NHHはメンバーのライセンス取得をサポートすること  
TICOのメンバーは海外旅行保険に加入  
主治医はザンビア人  
NHHは患者の全責任を負う  
MOHはTICOの通関手続きをサポートすること  
NHHはメンバーの病気に対して最善の治療を提供する






# 医療従事者のライセンス

## ザンビアのライセンスを取得する 必要条件

- 10年以上の臨床経験
- 行政処分歴が無いことの証明
- 日本の医師免許
- 英語力
- 看護師面接

## NHHがライセンス取得のサポートをする

P.R.C. No.: HPCZ/ [REDACTED]

  
Health  
Professions  
Council of Zambia

REPUBLIC OF ZAMBIA

HEALTH PROFESSIONS COUNCIL OF ZAMBIA  
Health Professions Act. No. 24 of 2009

LIMITED REGISTER

THIS IS TO CERTIFY THAT

**TAKESH MATSUMURA**

Is registered on limited register of


**MEDICAL DOCTOR**


Kept by the Health Professions Council of Zambia in accordance with the provisions of the Health Professions Act. No. 24 of 2009 of the Laws of the Republic of Zambia


This Certificate is valid from: 30th November 2023 to [REDACTED]

1. Your Head of Institution or approved Supervisor will recommend you on full registration at the end of this period.  
2. It is the duty of every registered practitioner to comply with the provisions of the Health Professions Act as amended from time to time.  
3. Serious or persistent failure to meet the principles of good professional practice and standards of compliance, care and conduct may put your registration at risk.

Issue Date: 30th November 2023



  
Registrar  
Health Professions Council of Zambia



# ザンビアの医療スタッフ



チレシェ・ムテマ医師（外科医長）

- ロシアで7年間研修
- 6-12回の活動に参加



ムダニソ・ジワ医師（外科医）

- イスラエルで4年間研修
- 1-5、11-12回の活動に参加



ジェーン・カブウェ医師（麻酔科医長）

- 心臓麻酔のトレーニングの機会なし
- 8-10、第12回の活動に参加

# ザンビアの医療スタッフ



コリンズ・ムウェワ（看護師、人工心肺技師）

- 日本で1ヶ月間研修
- 1-12回の活動に参加



フェリックス・カムチュング（看護師、人工心肺技師）

- 日本で1ヶ月研修
- イスラエルにて2年間研修
- 1-4、12回の活動に参加



# 協力の内容

治療はザンビア人スタッフが行ない、  
日本人スタッフはそれを補助する

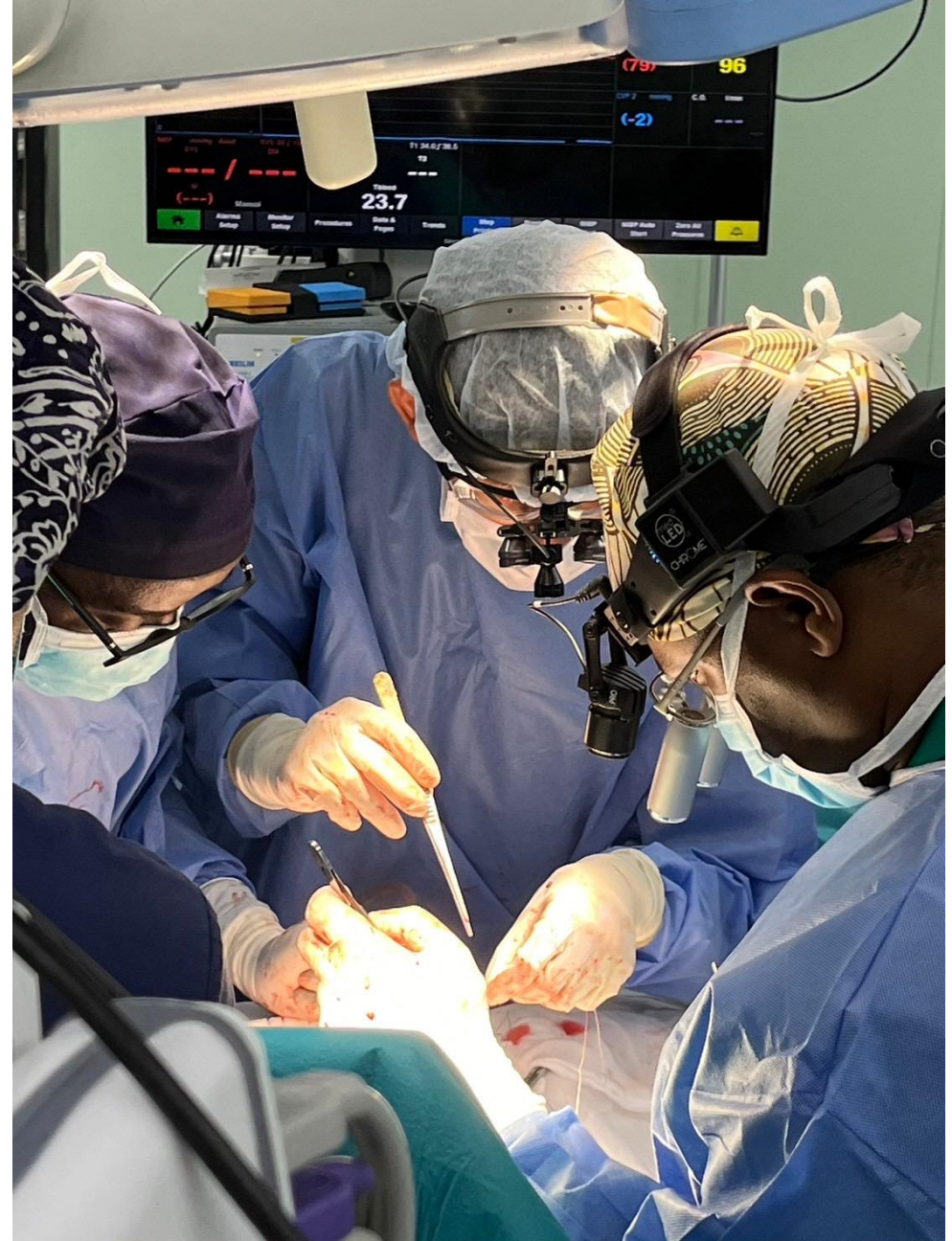
- 患者の選択
- 術前管理
- 麻酔
- 手術
- 人工心肺（CPB）
- ICUケア
- 病棟ケアとリハビリテーション
- ディブリーフィング

# 患者選択と術前管理





# 手術室にて





# 心肺バイパス (CPB)





# ICU





# 病棟と報告会





# 評価シート

毎日評価シートを書き、共有している（例）

[illegible]

# 実績

43人の患者に対して48件の手術を実施

[illegible]

# 実績

- 単一弁置換術を多くのサポートなしで行えるようになった。
- 麻酔科医と人工心肺技師のスキルが向上している。
- 手術室およびICUの看護師が心臓血管外科手術に慣れてきた。
- CPBと心筋保護の安全性が確立された
- ICUの管理と記録の改善
- 心臓血管外科に対するザンビアでの偏見が少し改善された。

# 術後患者





# 術後患者









By Blike Mulenga

## 34-year-old Nsama Mutale's successful heart surgery story

SHE spent about eight hours in a state of not knowing where she was. She was in a state of being between life and death.

This was Nsama Mutale, a nurse and a mother of two, from Mufulira's Section 2 who underwent a heart surgery at the National Heart Hospital in Lusaka. That surgery did not only worry the patient herself, but also her family members who for more than eight hours never ceased praying for her to come back from that bloodcurdling room.

Today, Nsama is very healthy and physically fit to perform some house chores which were not the case before her heart surgery in May 2022.

Nsama who a team from the National Health Hospital in Lusaka fondly calls as only 'Nsama' was diagnosed with a heart problem, then she underwent the procedure called mitral valve replacement through a median sternotomy.

Nsama explained how her condition started, and later got worse to an extent that it became difficult for her to perform duties, including simplest house chores. The good thing is that the situation is now different to

a 34-year-old midwife and a mother of two. She is now even yearning to report back for work after many months of absence from work due to her health condition.

Nsama narrates that she started experiencing peculiar weakness in 2014 after giving birth to her firstborn son while she was in Kasama, Northern Province. She later started failing to perform any work including minor house chores. At first she didn't really know what her problem was, as diagnosis was not known despite having been to different hospitals.

"I moved from hospital to hospital without doctors discovering what my problem really was. From Kasama I came here on the Copperbelt where I again passed through different hospitals until finally I went to the Ndola Teaching Hospital where I was referred to the National Heart Hospital in Lusaka," she explained.

Nsama arrived at the National Heart Hospital on April 1, 2022, and then admitted in the hospital on the same day. Nsama recalls that during her admission and prior to her surgery she underwent several assessments for the doctors

to ascertain if she was fit for a heart surgery.

Grace Chilombo is mother to Nsama, and she explained that she was worried when she was told that her daughter was going to undergo a heart surgery. However, she is now a happy person that the surgery was very successful and the daughter is healthy and fit. Chilombo now remains praising doctors and other health workers at the National Heart Hospital for their professionalism in which they saved Nsama's life.

Dorcas Mwape is a critical nurse at that health facility and she witnessed how Nsama was admitted in the intensive care unit for 10 days after undergoing a heart surgery. She explained that in the intensive care unit, Nsama was counseled a lot and was subjected to different health education as a way of helping her recover well. The nurse was glad that Nsama adhered to the counsel; she refused the dos and don'ts of the patient of the heart surgery, adding that it was the reason she was hastily showing tremendous recoveries.

The case of Nsama is a vivid testimony that Zambia's move in health

investment has started bearing fruit because 10 years ago any heart problem was being treated outside the country, in India and South Africa.

Kissco Kunda is the husband to the survivor. He has also remained commending doctors and health workers at the National Heart Hospital for the work they did on her wife. He always explains that he never knew that Zambia has qualified doctors who could conduct heart surgery.

Indeed, today the health scenario in Zambia is too different from what used to be obtained in health facilities 10 years ago. With this trajectory we can safely note that Zambia will soon start attracting other countries in the region and beyond to start sending their cardiac patients for major heart surgeries. Nsama's story is a good lesson to encourage those Zambians who may have a cardiac problem but are getting scared of seeking medical attention from our health facilities. Learning from Nsama, it is clear that the National Heart Hospital in Lusaka is capable of attending to all heart problems.

