

Revised Concept

The Kashikishi Project: Improving patient outcomes through mutual learning for change.

Strengthening the quality of care and establishing a Comprehensive Out-Patient Department at St. Paul's General Hospital, Kashikishi, Zambia

Prologue: moving toward integration

win-win-return-on-investment-mutual-learning-networking-synergy-south/north-south/south

The original Project Proposal submitted in December 2021 represented the fruit of analyses and discussions among northern partners and key stakeholders at St. Paul's Hospital (SPH) throughout 2020 and 2021. This new *revised* concept is based on additional discussions with members of the University Hospital of Basel (USB), persons involved with other projects in Africa (Marcel Tanner, Maja Weisser, Irène Hösli, Niklaus Labhardt), SolidarMed (SM) and Basel Förderverein (BFV). The concept of a cooperative project among a university hospital, a non-academic independent association (BFV) and a professional non-profit organization (SM) is a novum for all parties. Furthermore, unlike the other USB Africa projects, neither the project leader nor the expatriate of The Kashikishi Project is employed at USB – cause for thought on how to integrate The Kashikishi Project into USB's goals. To quote Niklaus Labhardt, the process has been one of "gemeinsames Zusammenfinden." This revised concept is an attempt to synthesize the advice amalgamated recently; I hope we can continue in good faith to design a project which fits the expectations of all parties.

Background

St. Paul's Hospital (SPH) is a Level II General Hospital located in northern Zambia; its mission is to provide basic and specialized medical care of good quality to the population in its catchment area in the northern half of Luapula Province, counting 650,000 persons. The challenges SPH faces in providing quality care to its patients are multifaceted; they are partly related to limited resources, for example inadequate funding for sufficient Blood Products to meet SPH needs. However, many challenges are caused or exacerbated by insufficiently organized procedures in the areas of Procurement of Medications/Medical Supplies, Human Resource Management, Patient Management ("patient flow," i.e. Behandlungskette) and Rational Prescribing of Medications. Another challenge SPH faces is managing the escalating number of adults with chronic, non-communicable diseases. High-income countries have had many decades of experience in managing this spectrum of disease; however, Zambia is just recently been developing its strategies, all the more difficult in a setting of limited resources and an already high burden of acute and chronic communicable diseases.

Specific Objectives

The aim of this project is to **improve patient outcomes** by:

1. **strengthening the organizational capacity of SPH**
2. **streamlining patient management ("patient flow", "Behandlungskette")** along the pathway from first encounter and triage to immediate emergency care, inpatient hospitalization, referral to a specialty clinic (e.g. non-communicable diseases), or non-urgent-but-same-day care
3. **"mutual learning"**: knowledge exchange between and within southern and northern partners for the benefit of all parties

Note! This 3rd specific objective is new; in the Project Proposal submitted December 4th, 2021 only the first two specific objectives mentioned above were included.

Action Lines

Aims will be achieved by cooperative action among partners.

1. **Organizational Capacity** at SPH in the areas of Procurement, Human Resource Management and Rational Use of Medication and Medical Products will be improved by establishing standardized procedures and by conducting regular teaching, supervision and monitoring. Expatriate MD will function in an advisory and coaching capacity to SPH Heads of Administration, Human Resources, Medical Superintendent, and Clinical Care.
2. **Streamlining "Patient Flow" (Behandlungskette)** will be accomplished by sharing knowledge. The expatriate MD will work side by side with Zambian colleagues and staff from different departments (medicine, nursing, clinical officers, administration, pharmacy, etc.) in the areas of patient management (e.g. point of first contact, triage, emergency care, admission and discharge procedures) and non-communicable disease management. The expatriate MD's immediate partner at "Augenhöhe" will be the Zambian MD appointed to be Head of the C-OPD. Teaching, coaching and supervising, the core of this project, will be supplemented by establishing the necessary infrastructure: 1. a new "Triage Building" 2. renovation of the existing Outpatient Department (OPD) to form a **"Comprehensive Outpatient Department (C-OPD) premises,"** offering Emergency Room, walk-in, referral, minor surgery and NCD treatment services.
3. **Mutual learning for change: Synergy, networking, cooperation, integration**
Mutual learning between Swiss and SPH staff has been ongoing for 20 years in the form of short-term rotations by medical doctors, medical students and midwives from Switzerland. These rotations will continue. New in this project is an expansion of this exchange in time, manner and place:

a. North-South/South-North

- **Expatriate specialist MD with Zambian partners at SPH:**
An expatriate specialist MD appointed by USB will be stationed at SPH for 2 years full-time 2022-2023 in order to facilitate the internal change

process (improving SPH's organizational capacity), to teach and supervise in the area of patient flow (Behandlungskette) and NCD treatment, as well as to establish a "comprehensive out-patient department" (C-OPD) where the above-mentioned services will be offered (triage, Emergency Room, walk-in, minor surgery, NCD Clinic, etc). Two Zambian MD counterparts will be appointed by SPH from the beginning of the implementation period to work with the expatriate: the Head of Clinical Care and the Head of the C-OPD.

- **Integration of TKP into USB as of 2024:**

- The function of the **expatriate MD** is expected to be filled by an **MD employed at USB**, who will work part-time at SPH to supervise the project (see below, "Financial Commitments USB")
- **Annual Workshop** with Zambian stakeholders and northern partners
- **Northern medical doctors, medical students and midwives** will continue to conduct rotations of varying lengths of time at SPH. Efforts will be made to encourage USB Personnel to conduct rotations at SPH. At the moment, medical student positions are booked out through 2025. In August-September 2022 a husband-wife team (infectious disease specialist/surgeon) from Zürich will be conducting a rotation at SPH.

b. **South-South**

- **SPH with Ifakara: Expatriate specialist, Zambian Head of C-OPD and a representative from the Provincial Office of Health** to visit Ifakara as "attachments" in 2022 to learn about Ifakara's handling of Patient Flow (Behandlungskette), and visit ER and NCD clinics.
- **Within Zambia:** Expatriate Specialist and Zambian Head of C-OPD, as well as key personnel from SPH, visit the other provincial Level II General Hospital (Mansa General Hospital) at least once annually to learn about their handling of Patient Flow, visit the ER and NCD clinics, as well as exchange experience. Key Personal from Mansa General Hospital to visit SPH at least once annually to advise and exchange experience.

c. North-North:

- **Communication** between members of **The Kashikishi Project and Ifakara Project** (Maja Weisser)
- **Communication** between members of **The Kashikishi Project and Tabora/Somaliland projects** (Irène Hösli and successor)
- **Communication among BFV, USB and SM:** continues

d. FUTURE HORIZONS: feasibility to be determined in 2023

Improving Obstetric Care at SPH

- to be evaluated in 2023 with Head of Midwifery and an Obstetrician at USB as well as Head of Nursing/Midwifery at SPH
- modeled on Irène Hösli's projects in Tabora and Somaliland

Team of at least one **an obstetrician at USB** (to be determined) and one **experienced midwife at USB** (Nadine Schlagenhaut) to conduct periodic short-term visits to SPH to conduct workshops with midwives and local MD's on obstetric care.

Opportunities:

- teaching method shown to be effective in improving obstetrical care in an African setting
- cooperation, advice and guidance from USB (Irène Hösli and, later, her successor at USB)

Challenges: Human Resource availability at USB could be limiting factor

NECESSARY INTERVENTIONS

Phase I: Project Development (DONE)

2019: Bernadette Peterhans: Situation Analysis

2021: expatriate MD (Dr. Bodo Giannone) and BFV (DONE)
assessment, workshop with partners, project proposal

Phase II: Implementation 2022-2023:

“software”

Cooperation between Zambian and Swiss expatriate (coaching, teaching and supervision between Zambian and Swiss colleagues)

- expatriate MD (Dr. Dana Goebel) full time at SPH
- **Search initiated for an Internist, Infectious Disease, Emergency Room or Tropical Medicine MD currently employed at USB** (in training for FMH or already with FMH) interested in becoming involved in TKP and eventually (from 2024 onwards) taking over the expatriate function part-time. An MD aspiring to obtain the FMH in **Tropical Medicine** or an MD striving toward a **Masters in Public or International Health** would be **ideally suited**.
- SPH appoints local MD to be Head of Clinical Care for the whole hospital
- SPH appoints local MD to be Head of C-OPD
- Medical Doctor, medical student and midwife rotations continue
- Feasibility of Future Horizons determined in 2023 (Improving Obstetrical Care at SPH)

“hardware”

- Triage Building planned, construction finished by end of 2023
- Current OPD premises renovated to accommodate C-OPD services (ER, small surgery, NCD, etc)
- Evaluation of C-OPD patient flow data completed and decision made, if further expansion of the premises will be necessary
- Equipment bought (e.g. EKG, Haematocrit device, Refrigerator, etc)
- Blood product collections and delivery at 100% of target

Phase III: 2024 and beyond

- **Expatriate MD at SPH** either
 - **Option one: employed at USB and covered by USB salary** (making periodic visits to SPH)
 - Option two: full-time with cost-sharing agreement between USB and SPH

- Option three: reduced time commitment (e.g. periodic visits)
 - Local MD as Head of Clinical Care for whole of SPH continues
 - Local MD as Head of C-OPD continues
 - "Northern" MD's, medical student and midwife rotations continue
 - Future Horizons, if deemed feasible in 2023, to be implemented in 2024:
 - Improving Obstetric Care at SPH: USB midwife/gynecologist team visits SPH annually

Financial Commitments of USB

- **2021-2023:** 100% expatriate employment costs
- **2024 and beyond**
 - Reduction of USB contribution to expatriate employment costs:
 - Option one: expatriate function is fulfilled by an MD employed at USB**, who receives USB salary, visits SPH periodically (modelled on Ifakara)
 - Option two: cost-sharing with SPH, e.g. whereby SPH pays salary and USB pays Swiss medical insurance, pension and social costs
 - Option three: expatriate visits SPH periodically in accordance with the amount of costs covered by USB
 - **Future Horizons**, to be determined:
 - travel stipends for midwife/gynecologist team visits once annually

Financial Commitments of BAMC (with fundraising assistance from SM)

- Housing in Kashikishi for all northern visitors according to availability
- Hardware costs: equipment, triage building construction, C-COPD building renovation and infrastructure, blood product procurement and equipment
- Visit of SPH and Provincial Office of Health key personnel, and expatriate specialist to Ifakara, Tanzania (3 persons): travel, lodging, per diem as necessary
- Local cooperation with Mansa General Hospital, Provincial Office of Health and Minister of Health (travel and per diems of SPH staff as necessary)
- Annual Workshop with northern partners and stakeholders at SPH (BFV and SPH cover on site costs of the workshop, northern visitors travel at their own expense)

Provisional Roll Matrix (Adapted from Jochen Ehmer):

Note: this matrix is a first, very provisional, draft – all points open for discussion

	SPH	USB	BFV	SM
Long Term Expat: administrativ begleiten und anstellen (Ausreise, Rückreise, Vertrag, Bewilligungen, Versicherungen, Briefings, Transport Lusaka-Kashikishi, Lusaka lodge, etc.)				x
Long Term Expat auswählen		x (lead)	x	x
Long-Term Expat inhaltlich begleiten 2022/2023		x	x (lead)	
Long-Term Expat inhaltlich begleiten ab 2024		x (lead)	x	
Long and Short-Term Expat Housing and Transport in Kashikishi*	x		x	
Short Team Expat rotations (md's, medical students, midwives) administrativ begleiten (Ausreise, Rückreise, Bewilligungen, Briefings etc.)	x		x	
Short Term Expats inhaltlich begleiten und unterstützen		x (kann von USB übernommen)	x kann in Zukunft reduziert werden)	
Future Horizons (to be determined): project definition & implementation		x (lead)	x (advisory)	
Future Horizons (to be determined): administrative, logistics Zambia, housing Kashikishi	x		x	
Overall responsibility for project finances (budget, accounting, money transfer and flow, expat salary NOT included)			x	
Project financing (tbc wer wieviel; wer kann sich für wieviel "committen"...))		x?	x?	x?
Expatriate salary, insurance, pension, etc.		x		
Research backstopping and quality control		x		
Liaison with local authorities	x		x	x
Projektbegleitung (Sicherstellen, dass long term Expat das Projekt gemäss Plan implementiert)	x			x
Project steering committee (1x/J)	x (Teams?)	x	x	x

*short-term visitors expected to contribute to costs of on-site housing. Should hotel accommodation be required, to be paid by northern visitors themselves.