

AO ALLIANCE ANNUAL REPORT 2016



AO
ALLIANCE

Our **mission** is to
reduce human suffering,
disability and poverty in
low-income countries by
enhancing
fracture care.

We **envision** a world
where timely and appropriate
fracture care is accessible to
everyone.



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A Letter

from the **Managing Director
and Chair**

Dear Friends,

2016 was a year of considerable successes, and 2017 will see the AO Alliance make even greater strides towards becoming a leading developmental non-governmental organization (NGO) in providing and enhancing opportunities in low-income countries (LICs) – helping patients to receive timely and appropriate care to heal their fractures.

Our annual report depicts the past year of the AO Alliance's significant attainments as we advanced our strategic plan, while continuing to provide opportunities through education, fellowships, clinical research and clinical services support to improve the care of the injured. Human trauma is a neglected source of death and disability in LICs that causes 5 million deaths each year, more than all deaths due to HIV/AIDS, malaria and tuberculosis combined. For every death, many more individuals live with trauma-related disability, contributing to a vicious cycle of poverty because of associated healthcare costs and decreased productivity, with global repercussions. Nevertheless, many nonprofit organizations and philanthropists predominantly support infectious diseases, while such support is practically non-existent for injury-related initiatives.

The AO Alliance Board revisited its strategic priorities in December 2016 and remains committed to its core competencies for improvement of fracture care in the developing world. Measuring our impact on global orthopedic trauma care remains an elusive, yet attainable, goal that we must strive to achieve in order to attract funding, sponsors and donors. Our vision and mission remain very much focused on the major global crisis of the silent epidemic of traumatic injuries, and the underfunding of the treatment of orthopedic injuries. Yet interventions to lessen the global burden of disease caused by trauma are effective and sustainable.

The Malawi Country Initiative completed its first year of implementation. This was the first de novo, large-scale project to be developed by the AO Alliance with local



Dr Rolf Jeker
Chair
AO Alliance Board

partners. The two new operating theaters at the Queen Elizabeth Central Hospital in Blantyre, Malawi, will double the capacity for treating fractures that require surgical management. Empowering better care for the injured captures the multi-faceted role of the AO Alliance through its country initiatives in LICs in Africa and Asia. Our Fracture Solutions projects in Africa and Asia reflect this versatile approach utilized to achieve our goal, always with the leadership of local volunteers in those countries, who are well rooted in their communities. Our collaboration and coalitions with other like-minded peers have proven effective, efficient and worthy.

While we are pleased with the successes the AO Alliance has achieved, we recognize that we operate in a changing world. Funding our activities is challenging. Donors seek accountability and transparency, as well as professional and efficient grant management. The AO Alliance has put such processes in place. It is at the heart of our values: passion, collaboration, integrity and empowerment.

Caring for injured people is essential; it is cost effective and must be a priority in the development of strategies to curb the devastating effects of traumatic injuries. It makes sense that it should be a part of the development of global health systems in LICs. The education of surgeons, non-physician clinicians and other healthcare staff in LICs is central to improving access and quality of fracture care. But an awareness drive to sensitize governments, policy makers and donors is much needed. Contributing and influencing at this level is a future commitment of the AO Alliance, while we remain committed to our core competence of educating healthcare professionals to treat broken bones better. The AO Alliance's successes would not be possible without its generous donors; the oversight provided by an elected and engaged Board; the AO Foundation and the Wyss Medical Foundation; and the dedication and hard work of our employees and volunteer faculty.



C. MARTIN

Dr Claude Martin jr, MD
Managing Director
AO Alliance



AO Alliance Highlights of 2016



JANUARY: Our five-year Malawi Country Initiative projects began, based on education, fellowships, clinical research, and clinical services support

JANUARY: Our three-year Fracture Solutions for Africa and Asia initiatives were launched, providing educational access for surgeons, residents, ORPs and other healthcare workers

Chloe
Jackson S/2



FEBRUARY: Multi-stakeholder meeting held in Ghana, resulting in a Country Initiative to boost local facilities and services

MARCH: Ethiopian Trauma and Orthopedics training course held in Addis Ababa with 48 participants

MARCH: First of two training events on nonoperative fracture care took place in southwest China

APRIL: "Play Safe with Sisimpur" project began, educating children in Bangladesh on safety

DECEMBER: Global fracture care consultation held in Davos to develop strategies for affordable and sustainable improvements

DECEMBER: The AO Alliance Board commits to promoting and establishing coalitions to improve fracture care in LICs

A photograph of a hospital room. In the foreground, a patient is lying in a bed, partially covered by a white sheet. To the left, a gurney with a light blue sheet is visible. The room has a tiled floor and a wall with a telephone and electrical outlets. A green semi-transparent banner is overlaid on the top left of the image, containing the title text.

Silent Epidemic: The Burden of Death and Disability from Injuries in LICs



Largely unnoticed in Europe and North America, trauma is a rapidly expanding epidemic in the world's low- and middle-income countries (LMICs). Patients in wealthy countries (and indeed prosperous patients anywhere in the world) typically enjoy the privilege of implants and fixation techniques developed by the AO, or according to AO principles. This is often not the case in poor countries, and state-of-the-art facilities and care are usually available to only a fraction of the population in these countries.

About the AO Alliance

OUR VISION

A world where timely and appropriate fracture care is accessible to everyone

OUR MISSION

To reduce human suffering, disability and poverty in low-income countries by enhancing fracture care



OUR GOAL

To build solutions to lessen the global burden of injuries in low-income countries

OUR VALUES

- Passion
- Collaboration
- Integrity
- Empowerment

OUR FUNCTION

We know amazing things happen when we match the right solutions to the right challenges. The AO Alliance implements innovative, effective programs that meet fracture care needs, are sustainable and build local capacity



Our Heritage



The AO Alliance was founded at the end of 2014, as the brainchild of the AO Foundation. Through its financial support and its large network, the AO Foundation facilitated the creation of the AO Alliance to focus on the trauma epidemic in LICs. Additional support is provided by a philanthropist from the medical device world.

The AO Alliance pursues two mutually reinforcing objectives: to use its reputation and its reach to facilitate the necessary "awareness process"; and to conduct developmental activities to improve fracture care, in the form of country initiatives and training programs throughout Africa and Asia. Its key principle is investment in local capacity - training mainly local surgeons and other healthcare workers, and providing a framework for them to practice their specialty and improve their skills.

Much work remains to be done. The AO Alliance will continue to develop its comprehensive approach to the silent epidemic of trauma and injuries in the developing world. Its key strength will remain the talent and resolve of its faculty network, dedicated to advancing education in fracture care. Greater awareness and advocacy efforts are needed to attract attention and, of course, funding.

We envision a world where timely and appropriate fracture care is accessible to everyone. We build solutions to lessen the global burden of injuries in LICs. With this comes the responsibility to monitor how well we are performing, to ascertain whether our efforts result in sustainable changes.



Needs Assessments: In our DNA



A needs assessment is a systematic process for determining the gaps between current and desired conditions. The AO Alliance made this process part of its DNA in order to drive its Country Initiative program. It led to our very first Country Initiative, in Malawi. The subsequent Ethiopia Country Initiative followed a similar pathway.

Although needs assessments do not always result in an AO Alliance Country Initiative, they are often a catalyst for stakeholders committed to bettering the care of the injured through improved communication and sharing of knowledge and resources.

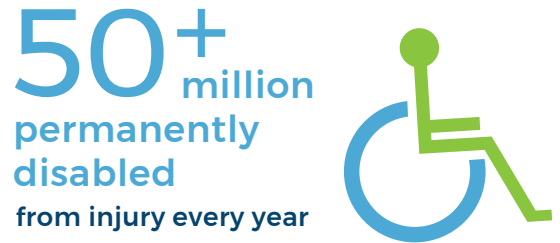
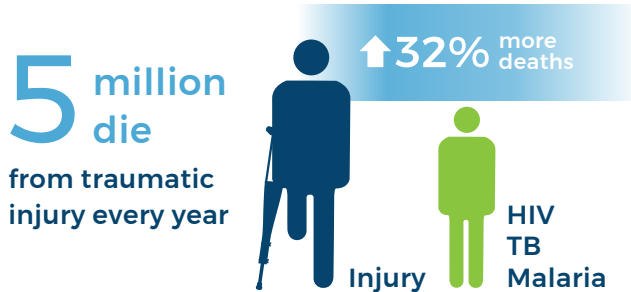
The common perception that trauma care is a 'luxury' in poor countries must be reconsidered. Its essential role in global public health must be acknowledged. Anything less will ensure that the morbidity and mortality endured by millions of people in poor countries who are unable to access surgical care will continue to be invisible to the rest of the world.

Monitoring and Auditing as Part of our Transparency and Accountability

From the beginning, the AO Alliance has been committed to having external oversight of its major undertakings. With the help of Société Générale de Surveillance (SGS) – the world's leading inspection, verification, testing and certification company – certification and verification were further expanded in 2016. Maintaining a local presence in the countries where the AO Alliance is active has allowed close collaboration to ensure transparency and accountability of donated funds.

THE CREEPING EPIDEMIC OF

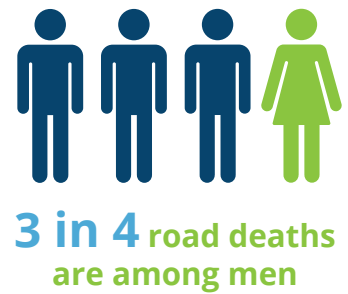
THE BURDEN IS UNDER-RECOGNIZED



ROAD TRAFFIC INJURIES: THE FACTS

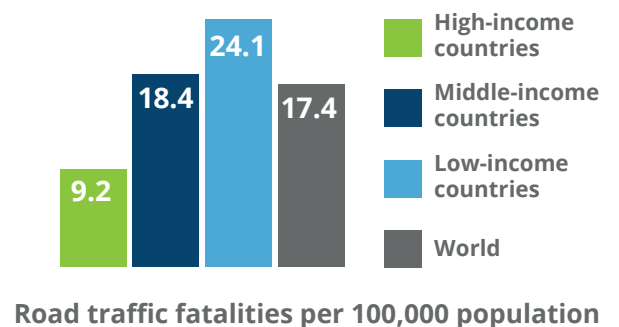
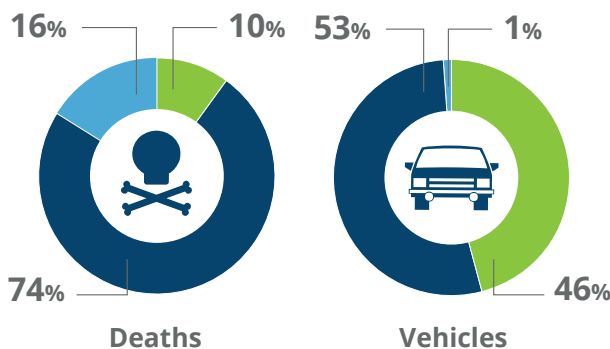


#1 cause of death among those aged 15-29 years



Although low- and middle-income countries have only half of the world's vehicles, they have 90% of the world's road traffic deaths

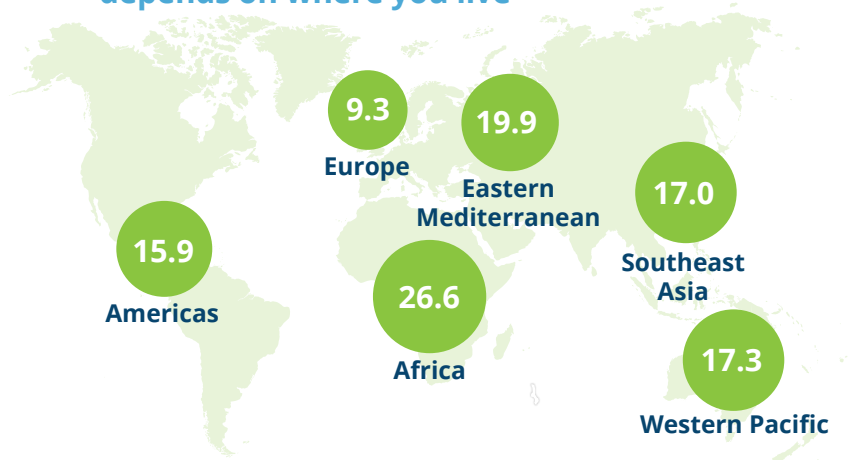
Low-income countries have the highest road traffic death rates



Sources: Lozano R, et al. *Lancet* 2012;380:2095-2128. Debas HT, et al. Surgery. In: Jamison DT, et al, eds. *Disease control priorities in developing countries*. 2nd ed. New York: Oxford University Press; 2006:1245-1260. Lopez AD, et al. *Global burden of disease and risk factors*. New York: The World Bank and Oxford University Press; 2006. *Injuries and violence: the facts*. Geneva, World Health Organization, 2010. Available at: www.who.int/violence_injury_prevention/key_facts/en/. Gosselin RA, et al. *Bull World Health Organ* 2009;87:246-246. Schmucker U, et al. *Unfallchirurg* 2010;113:373-377. Macfarlane SB, et al. *J Public Health Policy* 2008;29:383-401. *Global status report on road safety 2015*. World Health Organization. Available at: www.who.int/violence_injury_prevention/road_safety_status/2015/en/. United Nations. *Transforming our world: the 2030 agenda for sustainable development*. 2015. Available at: sustainabledevelopment.un.org/post2015/transformingourworld.

F DEVASTATING DISABILITY

The chance of dying in a road traffic crash depends on where you live



Road traffic fatalities per 100,000 population

22% 4% 23%



49%

of all road traffic deaths are among pedestrians, cyclists and motorcycles

Staggering economic toll



Unchecked escalation

By 2020, road traffic accidents will be a **TOP 3** cause of death and disability*

2nd in LMICs

3rd GLOBALLY

A CALL TO ACTION

SUSTAINABLE DEVELOPMENT GOALS

GOAL 3

HALVE

global deaths & injuries from road traffic accidents by 2020



GOAL 11

ACHIEVE

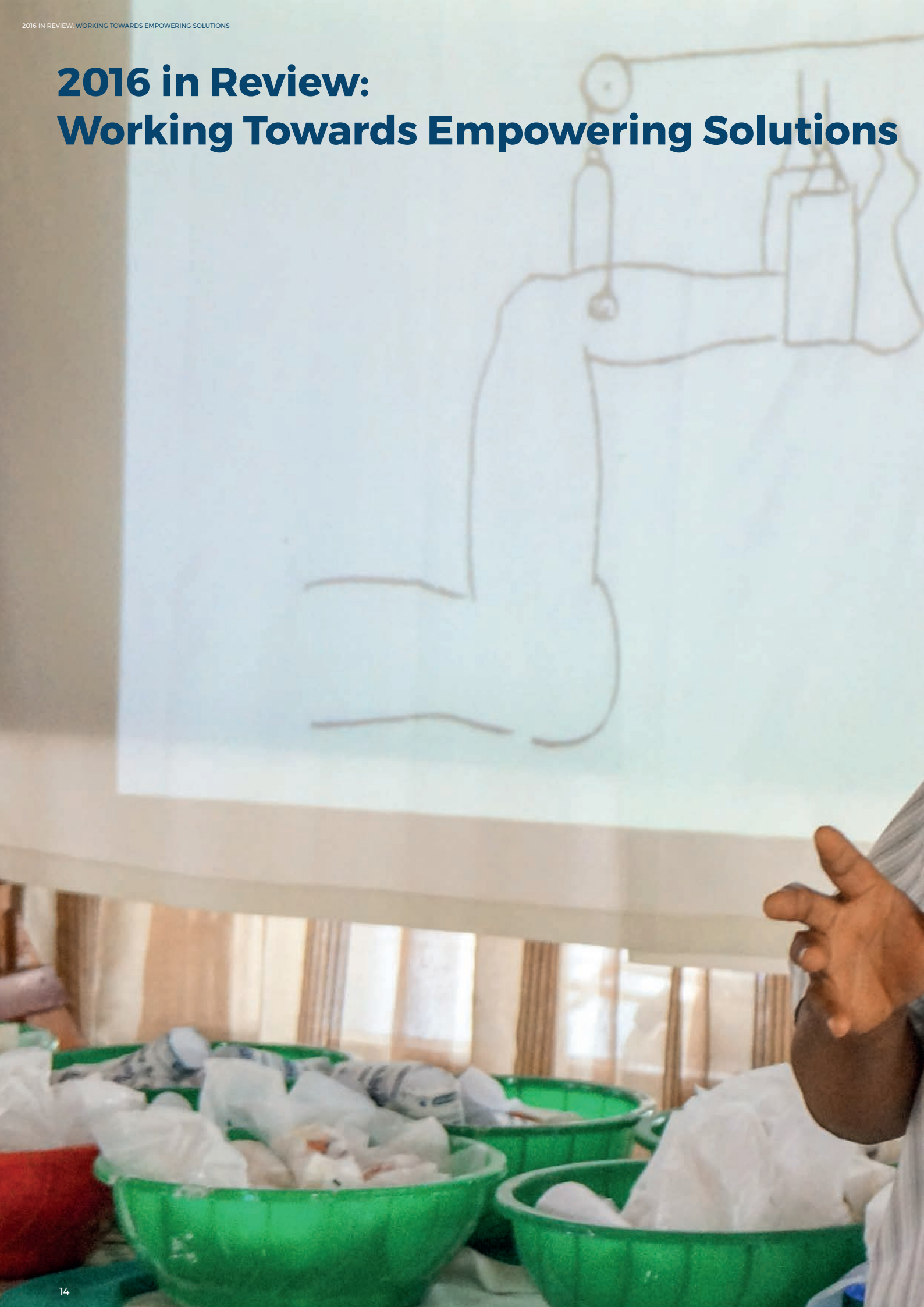
safe, affordable, accessible, sustainable transport systems for all by 2030



Abbreviations: TB, tuberculosis; LMICs, low- and middle-income countries

* as measured by disability-adjusted life years (DALYs). The DALY is a measure of the overall burden of disease, expressed as the number of years lost due to ill-health, disability or premature death.

2016 in Review: Working Towards Empowering Solutions









Malawi Country Initiative

The five-year program for Malawi launched in 2016 is now one of our most mature. We have taken a holistic approach to making trauma care more accessible through our four pillars of activity: **education, clinical research, clinical services support, and fellowships.**



Malawi



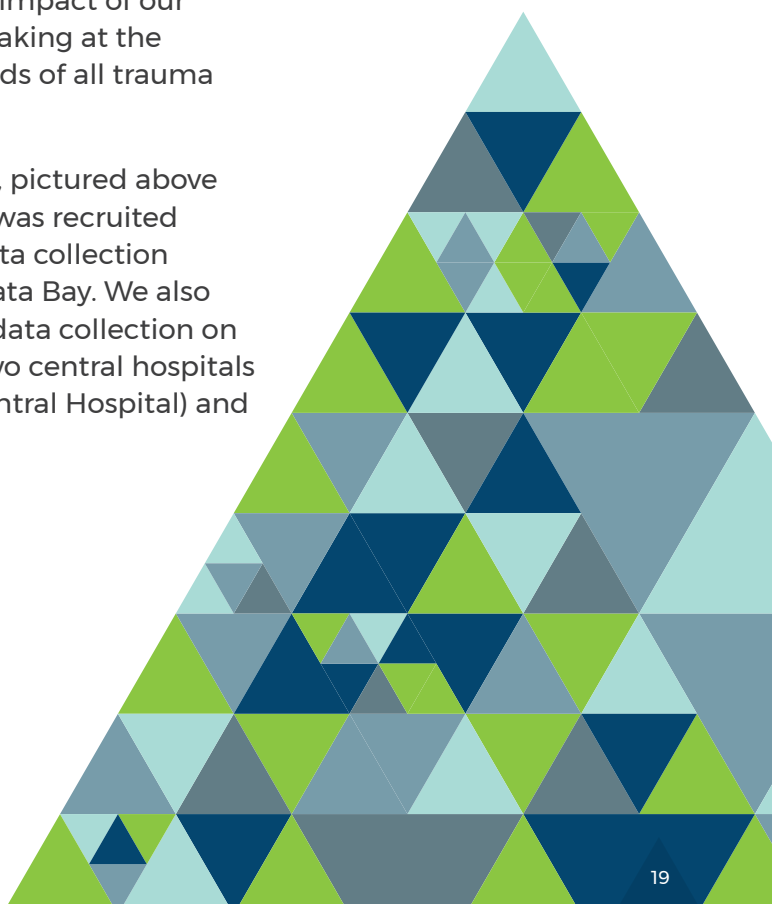
Malawi Clinical Research

As in many developing countries, data on orthopedic trauma care in Malawi are severely lacking. Without adequate information on patients, injuries and treatments, it is difficult to seek recognition and support for this epidemic.

For this reason, the AO Alliance has established a clinical research program to collect data on trauma cases in certain districts and central hospitals in Malawi, through trauma registries.

The registry covers injuries from road traffic accidents, assaults, domestic violence and other causes. The results will be used to determine the level of care needed, and assess the impact of our activities. Eventually, they will also help in policy-making at the national health system level, to ensure that the needs of all trauma victims are met.

A National Surgeon Consultant, Dr Linda Chokotho, pictured above with Dr Jim Harrison, AO Alliance African Director, was recruited in 2016 to oversee clinical research projects, and data collection began in two district hospitals, Mangochi and Nkhata Bay. We also launched an initiative to commission high-quality data collection on the burden and management of fracture care at two central hospitals (Queen Elizabeth Central Hospital and Kamuzu Central Hospital) and two district hospitals (Mangochi and Nkhata Bay).





Malawi Education

Orthopedic Clinical Officers (OCOs)

OCOs are the first point of call for trauma and orthopedic (T&O) cases in district hospitals. To help junior OCOs identify shortfalls, senior OCOs were deployed to six district hospitals through our OCO mentorship program. There, they provided one-on-one practical teaching sessions with junior OCOs, with the overarching goal of reducing referrals. District hospitals visited were: Mangochi, Nsanje, Mwanza, Mulanje, Ntcheu and Machinga.

Our Focused Nonoperative Fracture Course highlighted the most common fractures in the region and taught nonoperative treatment methods, attracting over 120 OCOs.

The AO Alliance also provided scholarships to students in their final year of the BSc OCO program. Their graduation will see better-trained personnel, handling cases with greater professionalism and a more specialized approach.



Two new operating theaters in Blantyre will double the number of patients to receive life-changing surgeries.

Operating Room Personnel

Few nurses are trained in trauma and orthopedics in Malawi. Hence, for 40 operating room nurses, we organized four hospital visits across the country. During these visits, participants were mentored on best practices for orthopedic cases, sterilization of operating tools, assisting surgeons and caring for patients – crucial skills for shortening patient recovery times and avoiding complications. Hospitals visited were: Zomba Central Hospital, Kamuzu Central Hospital, Mzuzu Central Hospital and Ntcheu District Hospital.

In addition, short courses for nurses and other personnel attracted 120 participants in Blantyre, Lilongwe, Zomba and Mzuzu. These courses addressed critical methods for ensuring proper patient care and safety, including preparation for interventions, stabilization of fractures during operations, and healing.

Surgeons

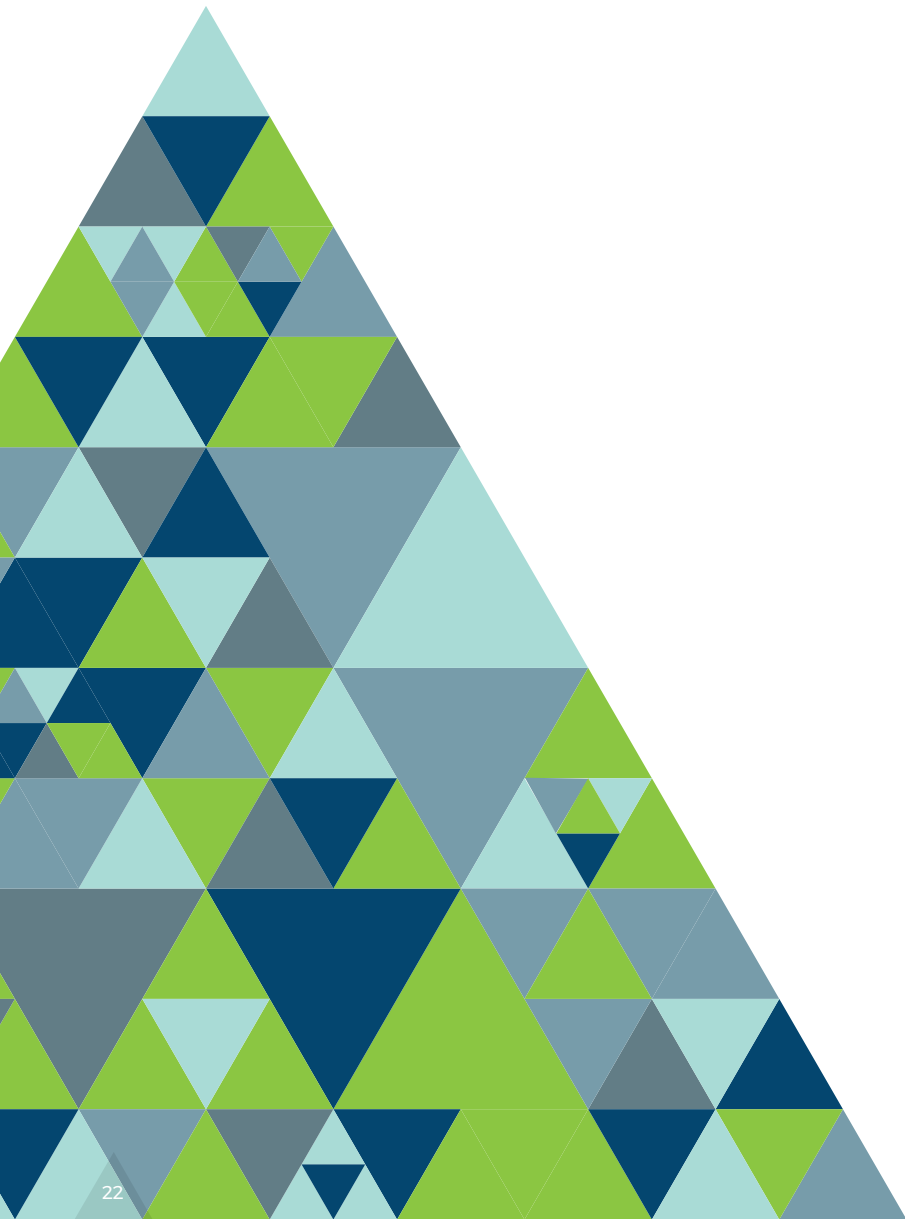
Malawi's shortage of T&O surgeons – there are only nine for a population of 17 million – and high incidence of fractures inspired us to organize the AO Alliance Open Day. Its purpose was simple: to attract young doctors in training to specialize in the field. Six young doctors showed a keen interest and we will assist them in realizing their ambitions.

Malawi Clinical Services Support

Early in 2017, work was completed on two new operating theaters that will provide much-needed surgical capacity for fractures in Malawi at the Queen Elizabeth Central Hospital (QECH) in Blantyre.

The two new operating theaters will bring life-changing care to those who need it most. Expanding the hospital's capacity to treat fractures operatively is a key element of our clinical services support activities within the Malawi Country Initiative.

Government-run QECH is the largest referral hospital in the country, with a total of 1,000 beds. Previously, it had just one main T&O operating theater, which was unable to handle the ever-increasing volume of trauma and fracture victims.

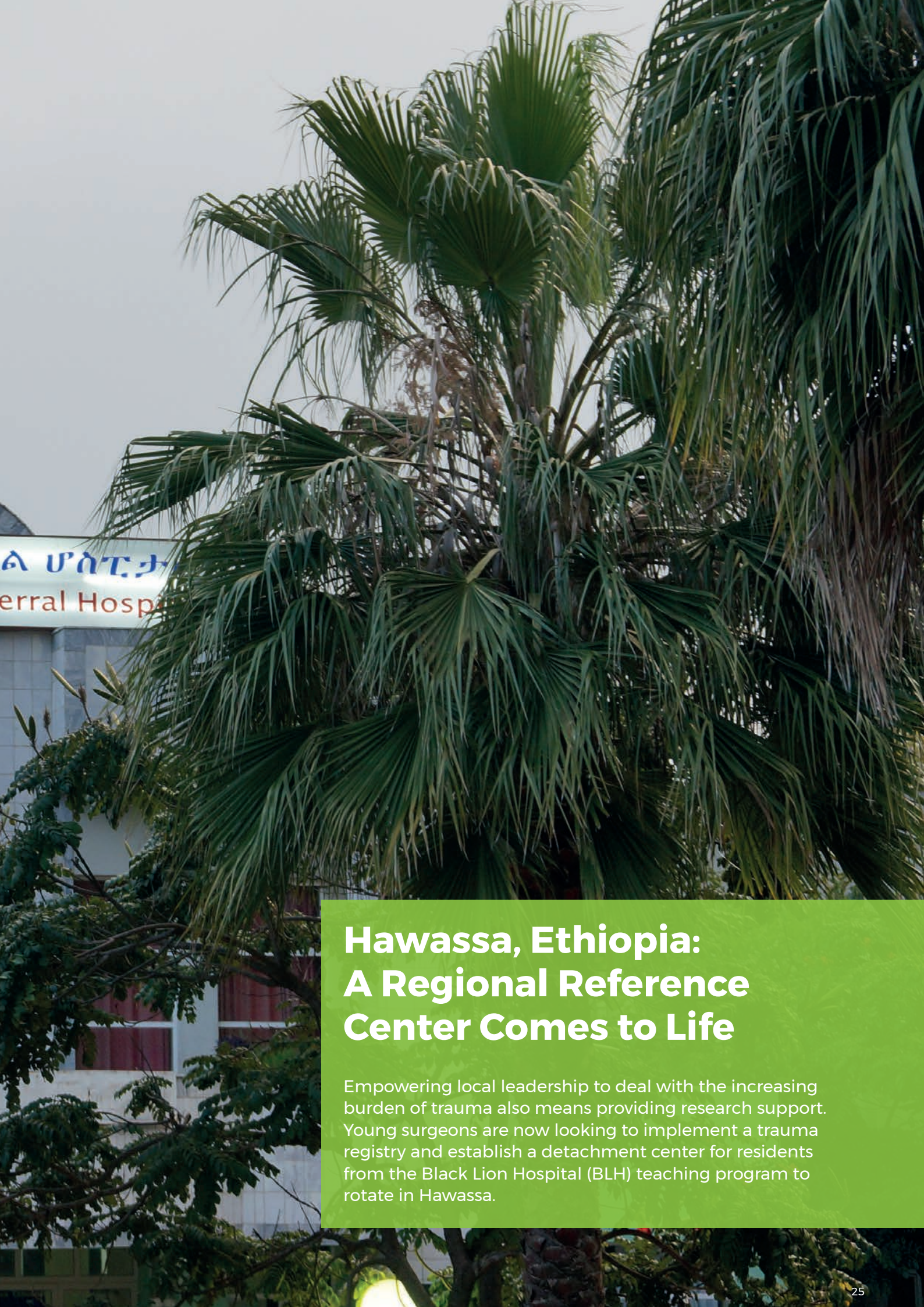






ሀዋሳ ዩኒቨርሲቲ ሪፍራክቶሪ
Hawassa University Ref

ህክምና ክፍል
rics Room



ጤላ ሆስፒታል
General Hospital

Hawassa, Ethiopia: A Regional Reference Center Comes to Life

Empowering local leadership to deal with the increasing burden of trauma also means providing research support. Young surgeons are now looking to implement a trauma registry and establish a detachment center for residents from the Black Lion Hospital (BLH) teaching program to rotate in Hawassa.



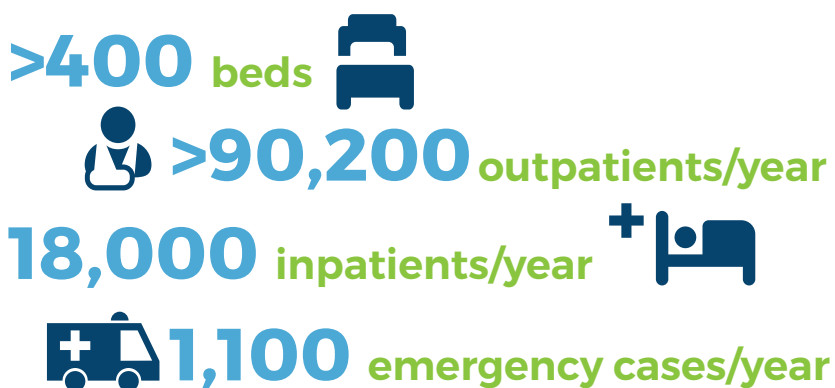
Ethiopia



Hawassa University Referral Hospital (HURH) is a recently opened and rapidly growing teaching institution, available to the 7 million residents in its catchment area. It has a young but well-established T&O department with a large patient burden. Two graduates from the BLH orthopedic residency program recently returned to further develop the unit.

In 2016, Drs Ephrem Gebrehana and Mamo Deschasa grew the unit to increase its capacity, and to teach young residents. The AO Alliance supported these two young surgeons with education opportunities, and tutelage was also provided for operating room personnel (ORP). In addition, a private donor supplied a significant piece of equipment – a femoral distractor – needed for the increasingly complex cases being treated.

Through a reverse fellowship arrangement with Wrightington, Wigan and Leigh NHS Foundation Trust in the UK, Mr Anthony Clayson and Mr Henry Wynn Jones provided mentorship support on two separate trips. Both are experts in pelvic and acetabulum surgery. As national expertise in this field is severely lacking, they were able to pass on vital skills and knowledge to the young surgeons.





- Benin
- Burkina Faso
- Burundi
- Cameroon
- Cote d'Ivoire
- Ethiopia
- Gabon
- Gambia
- Ghana
- Guinée-Conakry
- Kenya
- Malawi
- Mozambique
- Nigeria
- RCA
- RDC-Kivu
- Rwanda
- Sénégal
- Tanzania
- Tchad
- Togo
- Uganda
- Zambia
- Zimbabwe



Fracture Solutions for Africa

This three-year initiative was launched in 2016, with the aim of providing T&O healthcare professionals in Africa with access to operative and nonoperative fracture management courses.

In its first year, the project delivered excellent results:

41 courses



21 countries



1,685 participants



307 national faculty



92 regional faculty



17 international faculty



13 fellowships



ORP faculty support documents



AO Alliance's Operating Room Personnel Courses

Our ORP courses provide essential training in sterile operative care and operative fracture management. Through these courses, our trained ORPs support the principal public operative centers in African countries in which the AO Alliance is active.



- Bangladesh
- Cambodia
- China
- India
- Laos
- Mongolia
- Myanmar
- Nepal
- Sri Lanka
- Vietnam



Fracture Solutions for Asia

This three-year initiative will bring tangible return-to-function benefit to ten Asian countries and will establish the AO Alliance as the leader in nonoperative and operative fracture care education in Asia.

As an integral part of this initiative, a faculty development initiative will cultivate regional faculty with an excellent understanding of fracture management and the educational expertise needed to advance fracture care in the region.

31 courses



10 countries



1,165 participants



255 national faculty



50 regional faculty



6 international faculty



19 fellowships



WHO:

Implementing the Trauma Care Checklist within Our Education Programs



Dr. JAGDISH PRASAD
DGHS, GOVT. OF INDIA

M C Misra, India

Sh. J. P. NADDA
HONBLE UNION MINISTER, MHPW, GOVT. OF INDIA

WORLD TRAUMA

AUGUST 17-20, 2018

The WHO Trauma Care Checklist was launched on 18 August 2016 at the World Trauma Congress in New Delhi, India. Developed and validated through a large global collaboration, it was also supported by the AO Foundation.


The Checklist is a simple tool for use in emergency units. It reviews actions at two critical points to ensure that no life-threatening conditions are missed and that timely, life-saving interventions are performed.

The AO Alliance began integrating education about the Checklist into the Fracture Solutions for Africa project in 2016. Hospitals and institutions of all sizes within the AO Alliance African network began using this simple tool to improve their trauma process.



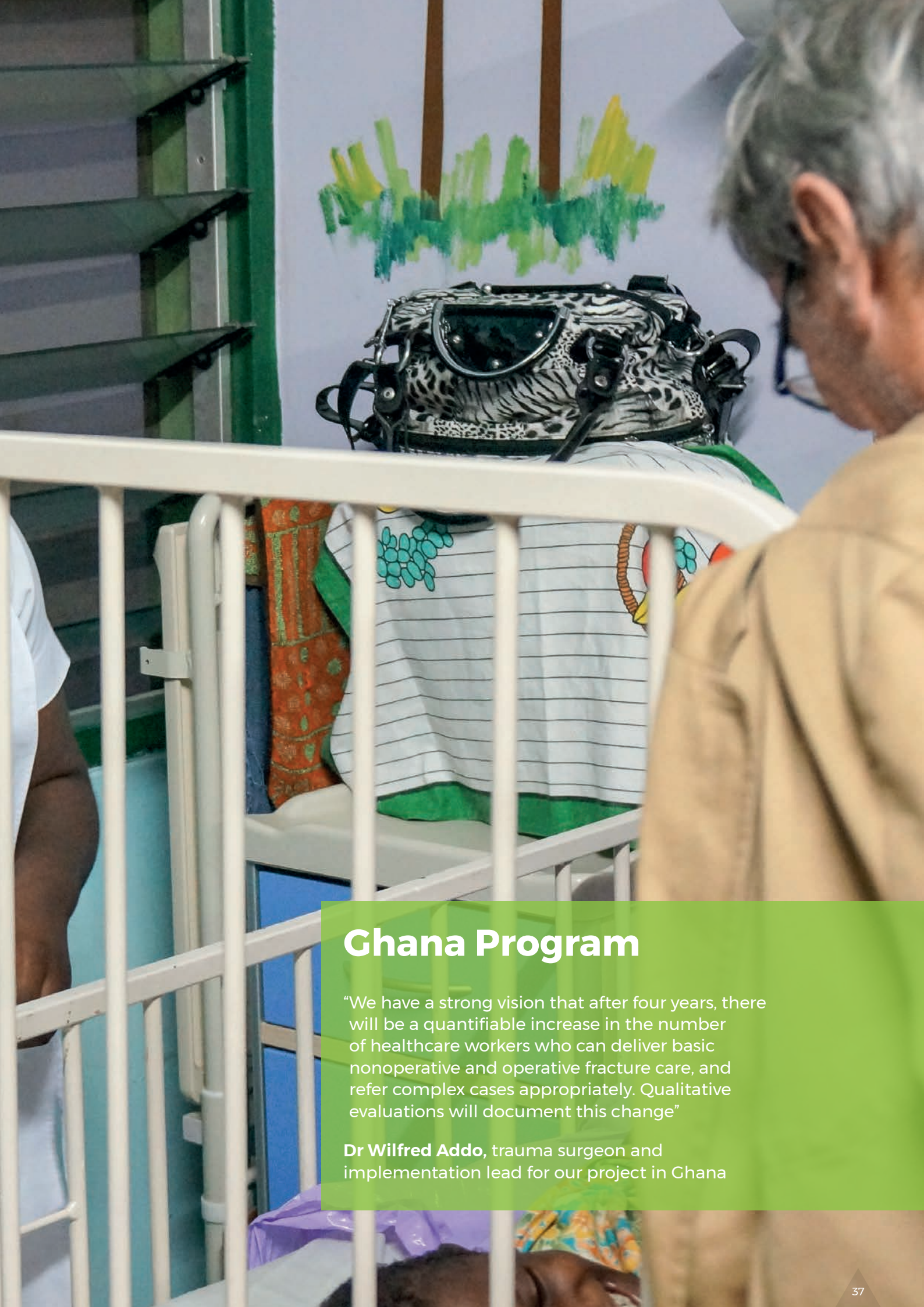
2016 in Review: Strengthening Collaborations



A large, ancient tree with thick, gnarled roots and a hollowed-out trunk, serving as a resting place for people. The tree's bark is light-colored with some darker patches and signs of decay. The roots are massive and spread out across the grass. In the background, several people are sitting on a wicker bench, and a building is visible through the trees.

The essence of the AO Alliance is its network of surgeons and ORPs, sharing the overarching mission of improving fracture care in LICs. One way the AO Alliance has also taken up the challenge of reducing the burden of traumatic injuries has been through education. To achieve this, there is much that we can do: adapted principles courses, continuing education courses, fellowships and reverse fellowships, internet reference and distance learning. As our name implies, this requires collaboration with like-minded organizations and professional societies.





Ghana Program

“We have a strong vision that after four years, there will be a quantifiable increase in the number of healthcare workers who can deliver basic nonoperative and operative fracture care, and refer complex cases appropriately. Qualitative evaluations will document this change”

Dr Wilfred Addo, trauma surgeon and implementation lead for our project in Ghana



Ghana

From Needs Assessment to Ghana Country Initiative

In Ghana, many injured people remain untreated, resulting in high levels of mortality and also of long-term or permanent disability. In particular, road traffic accidents represent a tremendous burden for Ghana, with a fatality rate of 17%.

On 24–26 February 2016, AO Alliance surgeon leaders hosted a delegation of government officials, teaching hospital directors and other influential healthcare workers in Elmina, on Ghana’s south coast. More than 20 participants took part in the event, which aimed to assess the country’s ability to provide care for trauma victims. As a result, the AO Alliance developed plans for a country initiative to boost and expand local care facilities and services.

The AO Alliance started implementing this initiative in late 2016. Successful implementation will help to relieve the pressure of trauma care on Ghana’s medical system, and offer hope to victims and their families.

THE CURRENT SITUATION IN GHANA







Ghana Country Initiative

Over the next five years, trauma is expected to rise to third place among the leading causes of death in Ghana. However, the services available to manage these patients and train healthcare professionals are inadequate.

The Ministry of Health raised concerns regarding road traffic accidents and designated ten hospitals as regional trauma centers. These have reasonable physical infrastructure but are poorly equipped and lack trained, specialist staff, supplies and systems of care.

The program aims to increase the capacity for training T&O surgeons, through focused development of two additional T&O residency centers; improve the training of all T&O residents through access to appropriate fracture care education; and develop clinical research and audit techniques.

Pediatric Fracture Solutions for Ghana

Recently, the AO Alliance officially launched a new project in Ghana, in collaboration with the Ghana College of Physicians and Surgeons (GCPS). This US \$1.5 million project aims to improve fracture care for the children of Ghana, and is funded by the UBS Optimus Foundation. The project is scheduled for implementation by the AO Alliance and GCPS over a four-year period.

The project will instill knowledge of trauma prevention strategies among parents and primary caregivers, and deliver fracture care education for traditional and medical providers from the community level up to tertiary-care trauma centers.

The Ghanaian Minister of Health, the Honourable Alex Segbefia, acknowledged the significance of this project. The mortality, morbidity and long-term disabilities that will be avoided can only improve the lives of Ghanaian children.





Successful Collaboration with Australian Doctors for Africa

Collaboration is at the heart of what the AO Alliance does – indeed, it is one of our core values. We are therefore delighted to work with the Australian Doctors for Africa (ADFA) to help develop the next generation of T&O professionals in Ethiopia.



Ethiopia



Molding the Future of Fracture Care in Ethiopia

In March 2016, the AO Alliance and the ADFA combined forces to advance Ethiopian T&O care, through a training course in basic orthopedic trauma principles and surgical skills at the Black Lion Hospital (BLH) in Addis Ababa.

Forty-eight first-year orthopedic trainees successfully completed the course, which is internationally recognized by both the AO Foundation and the AO Alliance. This group included all first-year trainees in the country, with 20 registrants from BLH, as well as 12 from St Paul's Hospital, eight from Mekele University and eight from Bahir Dar University.

In a happy twist of fate and as a marker of success of the initiative, Dr Ephrem Gebrehana - who attended the first course as a trainee in 2012 - was a member of the faculty. Other NGOs active in orthopedic delivery in Ethiopia also welcomed the invitation to participate. Dr Richard Gardner and colleagues from CURE Hospital Ethiopia declared that they were "happy to help".

The future of T&O care in Ethiopia will be in the hands of our young colleagues. We are grateful for the contributions of the ADFA CEO, Dr Graham Forward, and consultant Dr Michael Wren.





A close-up photograph of a group of children in Bangladesh, smiling warmly at the camera. The children are of various ethnicities and are wearing traditional clothing. The background is slightly blurred, showing an outdoor setting with a building in the distance.

Playing Safe in Bangladesh

In 2014, Dr Claude Martin jr. brought an idea to the AO Strategy Fund: why not develop educational content to prevent traumatic injuries among children in LMICs?



Bangladesh

Sesame Workshop Collaboration: Play Safe with Sisimpur

A new TV show for children on traumatic injury prevention is underway in Bangladesh, through a world leader in children's education, Sesame Workshop - the nonprofit organization behind the television series, Sesame Street. After two years of development, "Play Safe with Sisimpur" (Sisimpur is the Bangladeshi version of Sesame Street) became a reality.

The 24-month project aims to improve children's knowledge, attitudes and behaviors relating to accident and injury prevention, thereby reducing preventable traumatic childhood injuries in Bangladesh. Through engaging, age-appropriate and locally relevant messages featuring the Sisimpur Muppets, key areas of prevention will be covered.



> 28,000
caregivers
covered



> 42,000
children
reached





AO Alliance
Foundation

AO Alliance 中国学习班

2016年8月6日 云南·香格里拉



China Education Program

Our education program in China is approved by the AOTrauma China Country Council and the AOTrauma Asia Pacific Regional Board, and will run for three years.





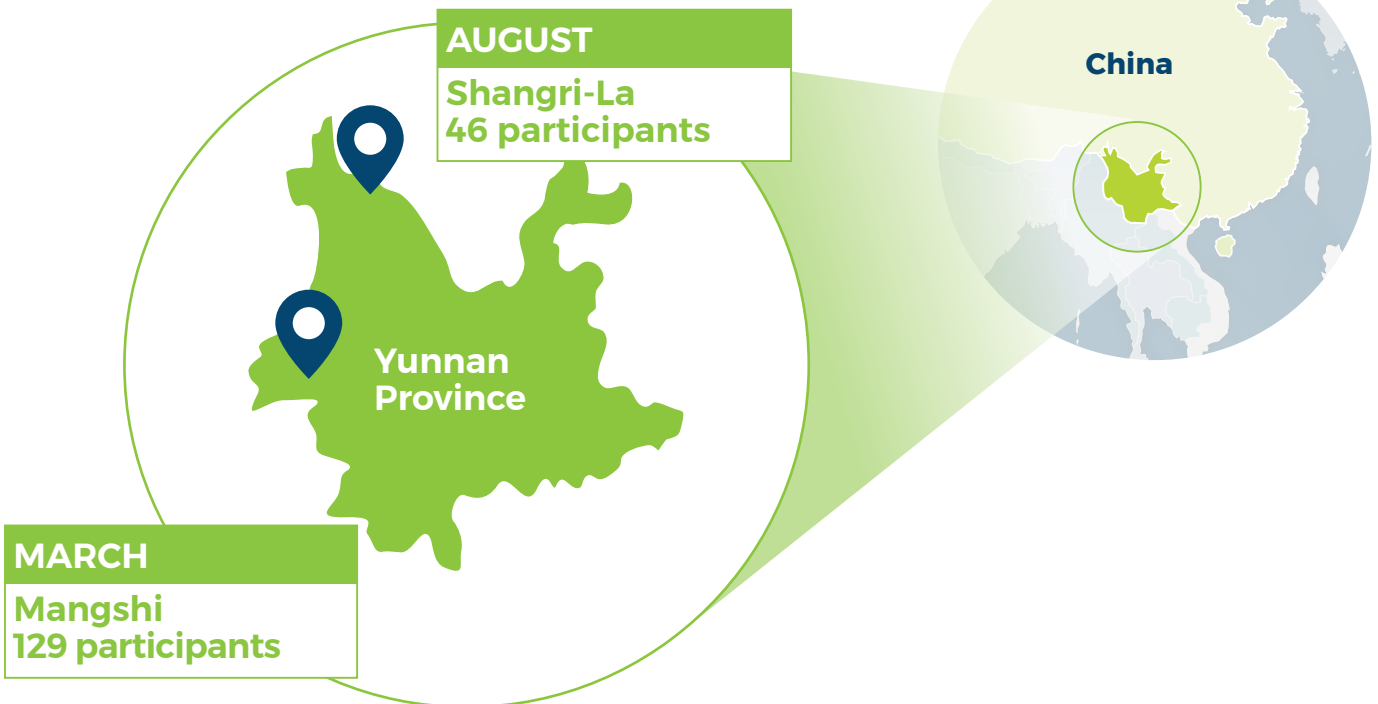


Fracture Care Education in Underprivileged Provinces of China

In Yunnan and Guizhou provinces in southwest China, the treatment of fractures is often subpar, and complication rates are high. Many fracture patients are unable to afford operative treatment, and surgeons often lack adequate education on conservative, nonoperative options. Hence, 'conservative' treatment often becomes no treatment at all.

Resources for professional development are scarce in this part of China. The AO Alliance therefore continues to work in partnership with the Clinical Divisions of the AO Foundation, such as AOTrauma, to improve educational standards. Dr Cong-Feng Luo and Dr Chen Zhong provided basic education on nonoperative fracture care to medical personnel in Yunnan and Guizhou.

Two courses took place in 2016, and most of the attendees had never previously attended an AO Alliance training event:



Davos Fracture Care Consultation Event





The AO Alliance: Global Consultation on Strengthening Fracture Care in Low- and Middle-Income Countries

On 2–3 December 2016 in Davos, Switzerland, the AO Alliance hosted a global fracture care consultation event. The goal was to agree on strategies to draw greater attention to affordable and sustainable improvements in global fracture care services in developing countries. This consultation involved 25 major stakeholders, including leading experts, orthopedic associations, the World Health Organization (WHO) and government representatives. It sought to establish a collaborative network of stakeholders aligned in their approach to mobilizing decision makers, and committed to a shared strategy.

Looking Forward



The AO Alliance works through three types of initiatives: country, collaborative and strategic. The next two countries scheduled for a Needs Assessment are Nepal and Burkina Faso. Both Fracture Solutions Projects (Africa and Asia) are being redeveloped for renewal of funding. Collaborations with various medical technology companies and research think-tanks are anticipated, with the aim of solving the implant and equipment conundrum.

All new programs and initiatives are evaluated by the AO Alliance Board, based on a robust evaluation protocol. To be approved, projects must first align with the mission of the AO Alliance. Next comes the financial consideration: can the AO Alliance take on additional activities beyond its current and future commitments? Finally, reporting and evaluation duties are needed to close the loop.



Our Governance

Board Members



Jaime Quintero
AO
Foundation
delegate



Rolf Jeker
Chair



Joachim Prein
Vice-Chair



Jean-Daniel Gerber
Economic
Development



Manjul Joshipura
Asia



Abdoulie Janneh
Africa



Michel Orsinger
*Chair,
Funding and
Audit Committee*



Ram K. Shah
*Regional
Director,
Asia*



**Dr Florent Anicet
Lekina**
*Coordinator,
French-speaking
Africa*



Dr Jim Harrison
*Regional
Director,
Africa*



Dr Wilfred Addo
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Financial Statements

10000

1 + 1 = 2

1 + 2 = 3

1 + 3 = 4

1 + 5 = 6





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Report of the statutory auditor on the limited statutory examination

To the Board of Foundation of

AO Alliance Foundation, Davos

As statutory auditor, we have examined the financial statements (balance sheet, income statement, cash flow statement, statement of changes in equity and notes) of AO Alliance Foundation for the financial year ended 31 December 2016. The limited statutory examination of the prior year financial statements was performed by another auditor, who expressed an unmodified examination conclusion on those financial statements.

These financial statements in accordance with Swiss GAAP FER and the requirements of Swiss law and the articles of foundation, foundation deed and regulations are the responsibility of the Board of Foundation. Our responsibility is to perform a limited statutory examination on these financial statements. We confirm that we meet the licensing and independence requirements as stipulated by Swiss law.

We conducted our examination in accordance with the Swiss Standard on the Limited Statutory Examination. This standard requires that we plan and perform a limited statutory examination to identify material misstatements in the financial statements. A limited statutory examination consists primarily of inquiries of company personnel and analytical procedures as well as detailed tests of company documents as considered necessary in the circumstances. However, the testing of operational processes and the internal control system, as well as inquiries and further testing procedures to detect fraud or other legal violations, are not within the scope of this examination.

Based on our limited statutory examination, nothing has come to our attention that causes us to believe that the financial statements do not give a true and fair view of the financial position, the results of operations and the cash flows in accordance with Swiss GAAP FER and do not comply with Swiss law and the articles of foundation, foundation deed and regulations.

Chur, 21 March 2017

BDO

Paul Kümin

Auditor in Charge
Licensed Audit Expert

Andreas Signer

Licensed Auditor

Enclosure
Financial statements

Financial Statements 2016 of AO Alliance Foundation

Balance Sheet

in CHF '000	Notes	Actual 31.12.2015	Actual 31.12.2016	Var A16 vs A15	
				abs	%
Bank	4	1,463	616	-848	-58%
Accounts receivables	5	132	40	-92	-69%
Short-term accruals	6	531	1,439	908	171%
Current assets		2,126	2,095	-31	-1%
ASSETS		2,126	2,095	-31	-1%
Accounts payables		210	352	141	67%
Other liabilities		88	97	9	10%
Short-term accruals		203	318	115	57%
Current liabilities		501	767	266	53%
Capital		55	55	0	0%
Retained earnings		1,570	1,272	-297	-19%
Equity		1,625	1,327	-297	-18%
LIABILITIES & EQUITY		2,126	2,095	-31	-1%

Income Statement

in CHF '000	Notes	Actual 2015	Actual 2016	Var A16 vs A15	
				abs	%
Gross revenue services	6	4,300	4,691	392	9%
OPERATING INCOME		4,300	4,691	392	9%
Material expenses		-6	-24	-18	300%
Licence expenses		0	-12	-12	n/a
Scientific & regional expenses		-185	-525	-339	183%
Marketing & communication expenses		-152	-294	-142	93%
Educational expenses		-144	-1,096	-952	663%
Personnel expenses		-627	-597	30	-5%
Expenses employees		-108	-93	15	-13%
Expenses & fees non-employees		-1,304	-1,847	-543	42%
Building expenses		0	-8	-8	n/a
Maintenance/repair/replacement		-13	-13	-1	5%
IT expenses		-5	-6	-1	19%
Insurance & fees		0	-5	-5	n/a
Administration expenses		-187	-422	-235	126%
OPERATING EXPENSES		-2,731	-4,942	-2,212	81%
OPERATING RESULT		1,569	-251	-1,820	-116%
NET FINANCIAL INCOME	7	1	-46	-47	-7549%
ORDINARY RESULT		1,570	-297	-1,867	-119%
NET RESULT BEFORE INCOME TAXES		1,570	-297	-1,867	-119%
NET RESULT		1,570	-297	-1,867	-119%

Cashflow Statement

in CHF '000	31.12.2015	31.12.2016
Profit/loss	1,570	-297
+/- depreciation/write-up (reevaluations resulting in profit) of tangible fixed assets		
+/- reversal of impairment (partial or full)/loss from impairment		
+/- increase/decrease of provisions (including deferred income taxes) that do not affect the fund		
+/- other expense/income that does not affect the fund		
+/- loss/profit from the disposal of tangible fixed assets		
+/- decrease/increase of receivables from deliveries and services	-132	92
+/- decrease/increase of inventories		
+/- decrease/increase of other receivables and prepayments and accrued income	-531	-908
+/- increase/decrease payables from goods and services	210	141
+/- increase/decrease of other short-term liabilities and accrued liabilities and deferred income	291	125
= cash inflow/drain from operating activities (operative cash flow)	1,408	-848
- outflows for investment (purchase) of tangible fixed assets		
+ inflows from disposal (selling) of tangible fixed assets		
+/- in-/outflows for investment of financial assets (including loans, investments etc.)		
- outflows for investment (purchase) of intangible assets		
+ inflows from disposal (selling) of intangible assets		
= cash inflow/drain from investing activities	0	0
+ inflows from capital increase	55	
- outflows for capital reductions with release of resources		
- distribution of profits to holders of units of the capital		
-/+ purchase/disposal of own shares/own units of the capital of the organization		
+ inflows from a bond issuance		
- outflows for bond repayments		
+/- issuance/repayment of short-term financial liabilities		
+/- issuance/repayment of long-term financial liabilities		
= cash inflow/drain from financing activities	55	0
Net cash inflow/drain	1,463	-848
Opening balance cash, post, bank	1,463	
Closing balance cash, post, bank	1,463	616
Net cash inflow/drain	1,463	-848
Var	0	0

The fund used is 'Cash', 'Post' and 'Bank'

Statement of changes in equity

	Capital of the organization	Capital of the organization not paid in	Capital reserves (share premium)	Own shares	Retained earnings	Total
in CHF '000						
Equity as of 31.12.2015	55	0	0	0	1,570	1,625
Capital increase						0
Cost of capital increase						0
Acquisitions of own shares						0
Net profit of the year					-297	-297
Dividends						0
Other distributions						0
Equity as of 31.12.2016	55	0	0	0	1,272	1,327

Notes to the financial statements

1 General information

AO Alliance Foundation has its registered and principal offices at Clavadelerstrasse 8, 7270 Davos Platz, Switzerland.

2 Basis of preparation

The financial statements have been prepared on the historical cost basis in accordance with Swiss GAAP FER and comply with the requirements of the Swiss law. The principle of individual valuation has been applied to assets and liabilities.

The financial statements were authorized for issue by the Board of Directors on its spring 2017 meeting.

3 Accounting policies

The financial statements are presented in Swiss Francs (CHF), which is the functional currency of AO Alliance Foundation.

3.1 Foreign currency

Transactions in foreign currencies are translated to Swiss Francs (CHF) at exchange rates at the dates of the transactions. At year-end, monetary assets and liabilities in foreign currency are measured using the exchange rate valid at the balance sheet date. Exchange differences from such valuation are recognized in profit or loss.

The following year-end exchange rates were applied:

EUR / CHF 1.072

USD / CHF 1.016

3.2 Balance sheet

3.2.1 Impairment of assets

Assets are reviewed at each reporting date to determine whether there is any indication of impairment. An impairment loss is recognized if the carrying amount of an asset exceeds its recoverable amount. The recoverable amount of an asset is the greater of its value in use and its fair value less costs to sell.

3.2.2 Cash, post, bank

Cash and cash equivalents comprise cash in bank and post accounts and petty cash. These positions are valued at nominal value.

3.2.3 Accounts receivables

Accounts receivables are carried at nominal value less allowance for doubtful receivables. The allowance is based on the aging of trade receivables, specific risks and historical loss experience.

3.2.4 Short term accruals

Short term accruals are liabilities that are due but not yet billed at the balance sheet date and that arise due to goods and services already received. They are assessed individually based on quotations, offers or past experience. Short term accruals also contain accrued income on projects and studies.

3.2.5 Employee benefits

The employees of the AO Alliance Foundation are included in a collective pension plan in accordance with the Swiss federal law on occupational retirement, survivors' and disability pension plans (BVG). The pension plan arrangement contractually excludes any deficit to be transferrable to AO and the pension plan institution is fully reinsured concerning the arising liability from the arrangement. Any surplus of the pension plan is immediately credited to the pension plan of the insured employees.

The pension contribution for the financial year 2016 was CHF 38 K.

3.3 Income statement

3.3.1 Revenue

Revenue is recognized at the fair value of the consideration received or receivable, net of discounts. The source of revenue of AO Alliance Foundation is based on donations. As of 31 December 2016, CHF 1,439 K were recorded as short-term accrual.

Details to positions of the financial statements

4 Cash, post, bank	31.12.2015			31.12.2016		
	in foreign currency ('000)	in CHF '000 abs	%	in foreign currency ('000)	in CHF '000 abs	%
Swiss Francs	-	1,463	100%	-	616	100%
EURO	0	0	0%	0	0	0%
US Dollar	0	0	0%	0	0	0%
Other	0	0	0%	0	0	0%
Total		1,463	100%		616	100%

5 Personnel expenses

Per 31.12.2016 the weighted average full time equivalents are between 1 and 10.

6 Net financial income

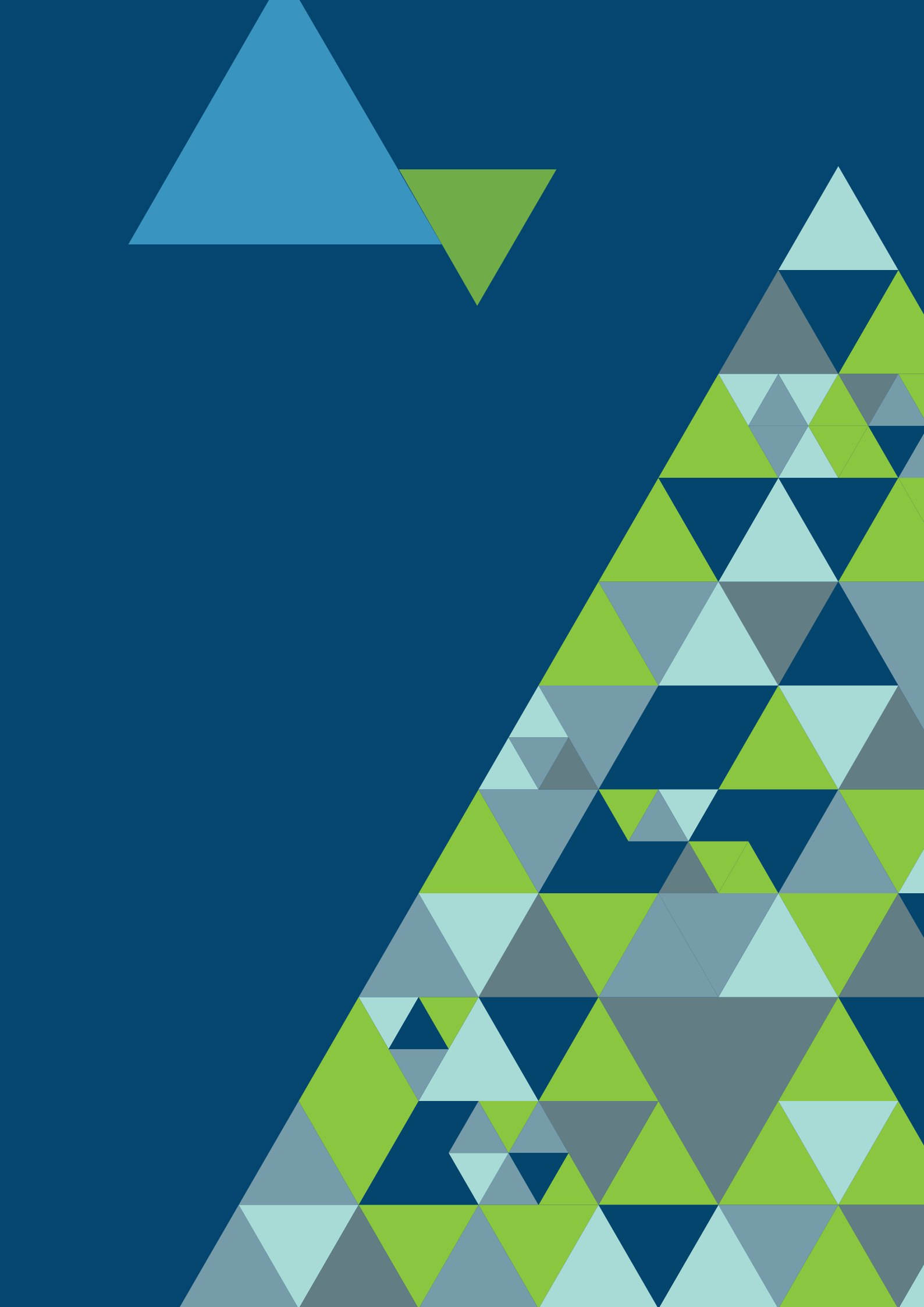
The loss incurred in 2016 relates mainly to FX transaction.

7 Subsequent events

At the date of issue of the financial statements no subsequent events have occurred.

List of Acronyms

ADFA:	Australian Doctors for Africa
AIDS:	Acquired immune deficiency syndrome
AO:	Arbeitsgemeinschaft für Osteosynthesefragen (Association for the Study of Internal Fixation)
AO SEC:	AO Socio-economic Committee
BLH:	Black Lion Hospital
GCPS:	Ghana College of Physicians and Surgeons
HIV:	Human immunodeficiency virus
HURH:	Hawassa University Referral Hospital
LIC:	Low-income country
LMIC:	Low- and middle-income country
NGO:	Non-governmental organization
OCO:	Orthopedic clinical officer
ORP:	Operating room personnel
QECH:	Queen Elizabeth Central Hospital
SGS:	Société Générale de Surveillance
T&O:	Trauma and Orthopedics
UN:	United Nations
UNECA:	United Nations Economic Commission for Africa
WHO:	World Health Organization





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