Subspecialty



Jonathan Jones is a Hand and Orthopaedic Surgeon in Peterborough and formerly a medical officer in the Royal Air Force. He has led surgical educational visits to Uganda, Malawi and Sierra Leone and is the current chair of the BSSH Overseas Committee.



Stephen Hodgson has been an Orthopaedic Hand Surgeon in Bolton for 30 years. He is proud to have helped develop the BSSH work in low income countries. Personal involvement has been in Sierra Leone, Sudan, Bangladesh, Tanzania and with the West African College of Surgeons.



Rowa Taha is an Orthopaedic trainee with an avid interest in global surgery. She is chair of the BSSH Overseas Trainees Committee, trainee lead for the BSSH-LION project and past member of IFSSH Young Surgeons Committee.

Hand partnerships around the world

Jonathan Jones, Stephen Hodgson, Rowa Taha and Wee Lam

"If you want to go fast go alone, if you want to go far go together" – African proverb

or the last 12 years the British Society for the Surgery of the Hand (BSSH) has been supporting and coordinating the development of hand surgery services and education in low income countries (LIC's). The success of our work was recognised by the global hand surgery community at the recent International Federation of Societies of Surgery of the Hand (IFSSH) Congress held in London 2022. A key component of that success has been working with a variety of groups at home and abroad to create long-term partnerships.

Why offer education in Low Income Countries (LICs)?

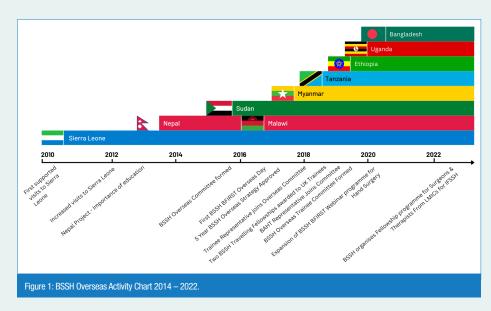
With over five billion people in LIC's lacking access to safe, affordable surgery¹ BSSH saw the need to use its resources globally. The burden of trauma care in LICs is growing including a significant proportion of hand injuries². The objectives of our society are "to promote the development of Hand Surgery and to foster and coordinate education, study and research in Hand

Surgery". We knew that BSSH members had the skills, knowledge and commitment to make a real and tangible difference in LIC's. The challenge was to mobilise our resources and members to work together towards this worthwhile cause.

Development 2010 - 2019

In 2010 the BSSH Council provided funding to support the first BSSH overseas project to Sierra Leone in 2011. There was considerable interest from BSSH members with many volunteering their free time to get involved. This dedication and the commitment of Council to annual funding of overseas work led to the initiation of educational projects in other LIC's. As the number of projects gradually increased so did the need to coordinate and share learning. This was met by the formation of the BSSH Overseas Committee in 2016.

By the time overseas visits were suspended in 2020 due to COVID-19, there had been 37 educational visits to ten different LIC's with participation from 68 BSSH members². The gradual expansion of our work is indicated by the fact that in 2019 we visited eight different LIC's, providing face-to-face training to over 475 LIC surgeons and their teams by 23 BSSH members.



Subspecialty



Wee Lam is a Plastic and Hand Surgeon. He was on the BSSH Overseas Committee and the immediate past chair of the British Foundation of International Reconstructive Surgery and Training (BFIRST), the official outreach arm of BAPRAS. Wee was delighted to lead the partnerships between BSSH and BFIRST which had resulted in several fruitful collaborations and raising of standards for overseas work.



Figure 2: BSSH Surgical Team visit to Holy Spirit Hospital in Makeni 2011



Figure 3: BSSH / Interburns Teaching at Connaught University in Sierra Leone 2018.

BSSH Partnerships

1) Overseas partners

The BSSH currently has partnerships with surgeons in eight project countries. The Sierra Leone partnership was initiated by Resurge Africa with the goal of establishing a Reconstructive Surgery Unit at the Holy Spirit Hospital (HSH) in Makeni; the first such unit in the country and second in West Africa. BSSH surgical teams made regular visits, delivering surgical treatment and training for theatre, ward and therapy staff. The project was not without its challenges, which included the Ebola and SARS – Cov-2 pandemics, an absence of statefunded healthcare, and a devastating fuel tanker explosion which led to the redeployment of HSH staff. Despite this, the reconstructive unit remains operational with a functioning Reconstructive service since 2020.

"Learning is a two way process and everyone who visited the HSH in Makeni benefited with regard to their own personal development in addition to supporting the unit"

During the COVID-19 pandemic, BSSH began regular online MDT meetings with the Makeni team and a visit by surgeons and therapists is planned for later this year. After 12 years, this project, against all the odds, has come to fruition and the partnership continues. The BSSH has also forged a partnership with the West African College of Surgeons (WACS) and with that a programme of online training modules in Hand Surgery.

"It became evident that there was good engagement from the membership and a palpable desire to make a real difference in healthcare in LICs globally"

Partnering with other organisations remains key to our efforts. Other than Sierra Leone, several milestones were also achieved in Malawi. The BSSH was invited by World Orthopaedic Concern (WOC) to deliver a Hand Trauma course for the Orthopaedic Clinical Officers (OCOs) at the Malawian Orthopaedic Association Conference in 2015. The BSSH has since partnered with AO Alliance to run a further course in 2017. In 2019 BSSH and Harvard Global Orthopaedic Collaborative (HGOC) partnered to run combined courses in hand trauma and ankle fracture fixation. The BSSH Malawi project has expanded to offer Hand Surgery courses to Surgical Trainees at the QECH in Blantyre, in partnership with the College of Surgeons Eastern, Central and Southern Africa (COSECSA).

The BSSH has also established projects in Bangladesh, Ethiopia, Myanmar, Sri Lanka, Sudan and Uganda. Educational courses and workshops are strictly needs led, at the invitation of the local surgical unit and fully evaluated. In 2015 the BSSH helped to form the Sudanese Society for the Surgery of the Hand (SSSH). In Uganda, the BSSH partners with the Church of Uganda Hospital Kisiizi and has delivered teaching for trainees and OCOs, and supported paediatric surgical camps. >>

Subspecialty



Figure 4: BSSH AO Alliance Hand Trauma Workshop for Orthopaedic Clinical Officers in Malawi 2017.



Figure 5: The Inaugural Meeting of the Sudanese Society for Surgery of the Hand 2017.

Other than surgical teaching, we recognise the importance of research. In March 2022, the BSSH delivered an interactive online research methodology course in partnership with the North West Alliance for Africa (NOTAA) and HGOC to Ethiopian trainees, and this will be rolled out to other countries.

The BSSH-BFIRST Webinar series started in 2019 has expanded to offer high quality teaching on the virtual platform. These monthly webinars are delivered in partnership with a LIC and have reached 1,320 delegates in 92 countries. This has led surgeons in Bangladesh to start their own Hand Surgery Webinar Series, offering teaching to surgeons in Bhutan and Nepal.

2) Core partnerships in the UK

The BSSH partners with The British Foundation of Reconstructive Surgery and Training (BFIRST) which is the overseas group of BAPRAS. This alliance has led to joint visits to Tanzania, Myanmar, Sudan and Ethiopia. BSSH surgeons offer Hand Surgery and Orthopaedics of the Upper Limb, whereas BFIRST surgeons offer general plastics, reconstructive surgery, burns, congenital hand and brachial plexus surgery. This synergistic approach between the two organisations has been extremely beneficial in covering the entirety of hand surgery cases encountered. Other than experienced consultant volunteers, the BSSH has a separate Overseas Trainee Committee which is extremely active and utilises links with other UK trainee organisations such as Global Anaesthesia, Surgery and Obstetric Collaboration (GASOC), the British Orthopaedic Trainees Association (BOTA), NOTAA and the BFIRST Trainees Committee to forge partnerships with trainee organisations around the world. This has improved the connectivity with surgeons in training globally and enhanced the productivity of our overseas work especially via the BSSH-BFIRST webinar series. The BSSH



also works closely with the British Association of Hand Therapy (BAHT), and the hand therapists are an integral part of the visiting teams and educational webinars. The role of therapy in the conservative management of hand injuries is crucial as is their involvement in facilitating post-operative rehabilitation.

3) Collaborative partnerships, home and abroad

Since the establishment of the Overseas Committee, the BSSH has enjoyed a good rapport with a number of well-known organisations involved in education and training globally, including WOC (Malawi), NOTAA (Ethiopia), HGOC (Ethiopia and Malawi), AO Alliance (Malawi), Resurge Africa (Sierra Leone and West Africa), COSECSA (Uganda and Malawi) and Interburns (Sierra Leone).

In Malawi the BSSH now partners with the Lilongwe Institute of Neurosurgery and Orthopaedics (LION) to create an Orthoplastic Hand Unit. During this ambitious five-year programme, UK staff will help provide hand surgery services and training for COSECSA surgeons, forming an integral part of the wider BSSH Malawi Project.

Benefits of collaborative working

The value of partnership and team-working is not a new concept to anyone working in healthcare and it is vital in enabling the delivery of surgical training and care. So it is no surprise that it is the crucial component in supporting healthcare training initiatives globally. There is shared learning from the outset and the enthusiasm for teaching is infectious and stimulating. Welling⁴ emphasised the improved outcomes achieved in humanitarian missions when multiple organisations are present on the ground.

"Trainees who have been on educational visits to project countries have gained in their confidence, personal growth and team-working skills."

Taking part in global outreach work is highly rewarding for all involved, with trainees reporting improved confidence, personal growth and team-working skills following overseas visits.

United Kingdom	677	United Arab Emirates	30	Palestinian Territories	13	Czech Republic	5	Russia	2
Egypt	282	Italy	29	South Africa	13	Hungary	5	Sweden	2
Nigeria	217	Malawi*	28	Sudan	13	Paraguay	5	Yemen	2
Saudi Arabia	156	Peru	27	Ecuador	12	Slovakia	5	Azerbaijan	1
India	140	Jordan	26	Germany	12	Austria	4	Bhutan	1
Nepal*	132	Kenya	23	Iraq	12	Belgium	4	Botswana	1
United States	119	Australia	21	Kuwait	12	Guatemala	4	Bulgaria	1
Pakistan	107	Netherlands	21	Colombia	11	Philippines	4	Burundi	1
Bangladesh*	92	Guyana	19	France	11	Trinidad and Tobago	4	El Salvador	1
Indonesia	83	Turkey	19	Japan	10	Uruguay	4	Eritrea	1
Romania	79	Uganda*	19	North Macedonia	10	Armenia	3	Finland	1
Ireland	56	Canada	18	Malta	9	Israel	3	Haiti	1
Mexico	51	Sierra Leone*	18	Morocco	9	Jamaica	3	Jersey	1
Ethiopia*	50	Taiwan	18	Georgia	8	Uzbekistan	3	Luxembourg	1
Greece	49	Singapore	16	Thailand	8	Albania	2	Macao	1
Zambia	48	Zimbabwe	16	Belarus	7	Bahrain	2	Myanmar*	1
Ghana	47	Argentina	15	Isle of Man	7	China	2	Panama	1
Malaysia	40	Venezuela	15	Slovenia	7	Congo	2	Poland	1
Brazil	36	Libya	14	Hong Kong	6	Croatia	2	Serbia	1
Oman	34	Mozambique	14	Qatar	6	Maldives	2	Sri Lanka*	1
Tanzania*	33	Ukraine	14	Rwanda	6	Mali	2	Switzerland	1
Cambodia	32	Chile	13	Vietnam	6	Mauritius	2	BOLD - Low and middle income countr *BSSH Project countr	
Spain	31	Moldova	13	Algeria	5	Portugal	2		

Figure 7: Global engagement - BSSH BFIRST Webinar Series 2019 - 2022 (1,320 delegates in 92 countries).

Challenges and solutions in partnership working

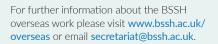
Working in partnerships is not without its challenges and some partnerships do not progress or deliver maximum potential. In our view successfully addressing the challenges as they occur has been one of the most rewarding aspects of our overseas work. It is essential to long-term success and provides mutual learning for all parties. Examples of some of the challenges we have encountered are:

- Differing agendas as surgeons we tend to have strong opinions and are used to a lead role. Partnership working requires alignment of agendas and agreeing a shared opinion requires shared decision-making and mutual objectives. Agreeing that the primary aim of a project is supporting the local surgeons to meet the needs of their population has been helpful.
- 2. Logistics planning, scheduling and resource use is undoubtedly more complex with a larger multidisciplinary team. We aim to include an Orthopaedic Surgeon, a Plastic Surgeon, a surgical trainee and a hand therapist on all visits. It is important that surgeons are prepared to be flexible, empower the local surgeons to take a lead role in visit planning and are aware of the potential negative impact of the visit on the host unit in terms of disruption of routine services and financial costs.
- 3. Competing egos (both individual and organisational) – for us this is about who gets the credit for the success of a project and may determine the success of future funding bids. Key solutions are to focus on a successful outcome and ensure that credit is shared.
- 4. Cultural challenges members of a partnership can come from a variety of professional and national cultures leading to differing approaches. Fortunately, hand surgery has a long track record of harnessing the differences between orthopaedics, plastic surgery and hand therapists.

Summary and conclusion

Team working is crucial to the success of global surgical work, whether it be running a webinar or skills workshop, or delivering surgical treatment. The BSSH endeavours to achieve this and has been flexible to multiple partnerships to find the optimal way to achieve differing tasks. As a diverse orthoplastic society, BSSH members are used to collaborative working. All learn differing skills, knowledge and effective team-working. The emphasis is on synergistic, mutual learning and shared goals and outcomes.

After 12 years, the BSSH Overseas continues to offer training and collaboration with its global partners. In the aftermath of the SARS – CoV-2 pandemic, the BSSH now delivers this using a combination of virtual medium and 'in country' visits. Time, energy and commitment is needed to engage in this type of work. There is an old Zambian Proverb which says "you can't paddle a canoe with one foot on the bank". In the context of global healthcare, any person or organisation has to engage fully with this type of work otherwise potentially transformative partnerships will neither develop, sustain nor make any significant difference in local healthcare systems.



Key messages

- To be aware of existing overlapping nongovernmental organisation work streams in global healthcare.
- To understand the importance of assessing the local need in order to target resources appropriately.
- To be realistic about what can be achieved and be flexible to respond to opportunities at short notice.
- To appreciate that partnership challenges can be overcome and that collaborative working is more likely to make a sustained difference in the long-term.
- Global partnership in healthcare is a two-way process. ■

References

- Meara JG, Leather AJ, Hagander L, et al. Global Surgery 2030: evidence and solutions for achieving health, welfare, and economic development. *Lancet*. 2015;386(9993):569-624.
- Crowe CS, Massenburg BB, Morrison SD, et al. Global trends of hand and wrist trauma: a systematic analysis of fracture and digit amputation using the Global Burden of Disease 2017 Study. *Inj Prev.* 2020;26 (Supp 1):i115-i124.
- Hodgson SP, Abdelrahman M, Jeme B, et al. Cultural challenges facing UK surgeons providing education in low and middle income countries: How can we use cultural theory to maximise the success of courses overseas? RCSEng Bulletin 2022;104(4):196-200.
- 4. Welling DR, Ryan JM, Burris DG. Seven sins of humanitarian medicine. *World J Surg.* 2010;34(3):466-70.



Figure 8: Therapy Splinting Photos in Malawi and Uganda

