



CapaCare Annual Report 2022

June 2023

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Summary

Dear friends, collaborators, and supporters

In 2022, we had the immense pleasure of celebrating CapaCare's ten-year anniversary. This gave us the opportunity to reflect upon what we have achieved together over the last decade.

In 10 years, more than **90 trainees** have been enrolled into the Surgical Training Programme (STP) of which **70 have graduated**. To put this into perspective, in 2011 only 10 specialist surgeons were registered in public hospitals across Sierra Leone. It makes us proud that our graduates contribute to saving lives and helping people in need of surgical care all over Sierra Leone. Performing everything from **emergency obstetrics, including caesarean sections, hysterectomies and lifesaving operations for ruptured ectopic pregnancies to emergency general surgeries such as laparotomies and strangulated hernia repairs, and not to forget trauma care**. Many of those operations need to be performed under challenging conditions, sometimes without electricity, chronic shortage of sutures, old, worn-down equipment, relying on clinical diagnosis or an ultrasound performed themselves.

Patients in **poor nutritional condition**, arriving very late, limited **anaesthesia** services and **post-operative** recovery that also have their shortcomings. As with **any surgeon**, our graduates are occupied with **the outcomes**, primarily for the **patients**, but they also need to preserve their own **reputations**.

Task-sharing is not **supported** by all our **co-health care workers in Sierra Leone**. Salaries have been poor, sometimes even absent for months, many posted to rural hospitals making **sacrifices** by not staying with their **families**. Despite all this, our graduates continue to do **thousands of operations** every year. As Chairperson of

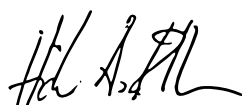
CapaCare International, "**I'm extremely proud of you** and you have my deepest respect for how you are tirelessly carrying out your work under those conditions."

Combined, we, together have **published close to 50 peer-reviewed papers** in international journals making Sierra Leone a country where **the surgical system is quite well described** and the challenges and opportunities **of the introduction of task-sharing** is well documented – maybe better than any other country in Africa. We could not have done this without the trainees enrolled in the STP.

Since the start of the Programme, around **90 individual international** trainers have carried out over **250 trips** and delivered more than **350 courses**. Alongside this we have employed Sierra Leonean trainers and we have developed our own trainers among the graduates, something that is even more important for the future.

There have also been some interesting developments in Liberia in 2022. We received NGO accreditation from the Ministry of Finance and Development Planning and started the first training activities. An agreement was signed with the Liberian College for Physicians and Surgeons, John F Kennedy Medical Center (JFK) and Jackson F Doe Regional Referral Hospital (JFD) to support the specialisation for Medical Doctors in the fields of Obstetrics & Gynaecology and Surgery. We opened an office in JFD Hospital in Tappita, where the newly established local management team is situated. The first training activities started in April 2022 and since then several training courses and rural rotations have taken place.

Thank you to all that have made this possible. Thank you for all the important contributions and I'm looking forward to the next 10 years together with you.



Håkon A. Bolkan
CapaCare International Chairperson

Trondheim, Norway – June, 2023

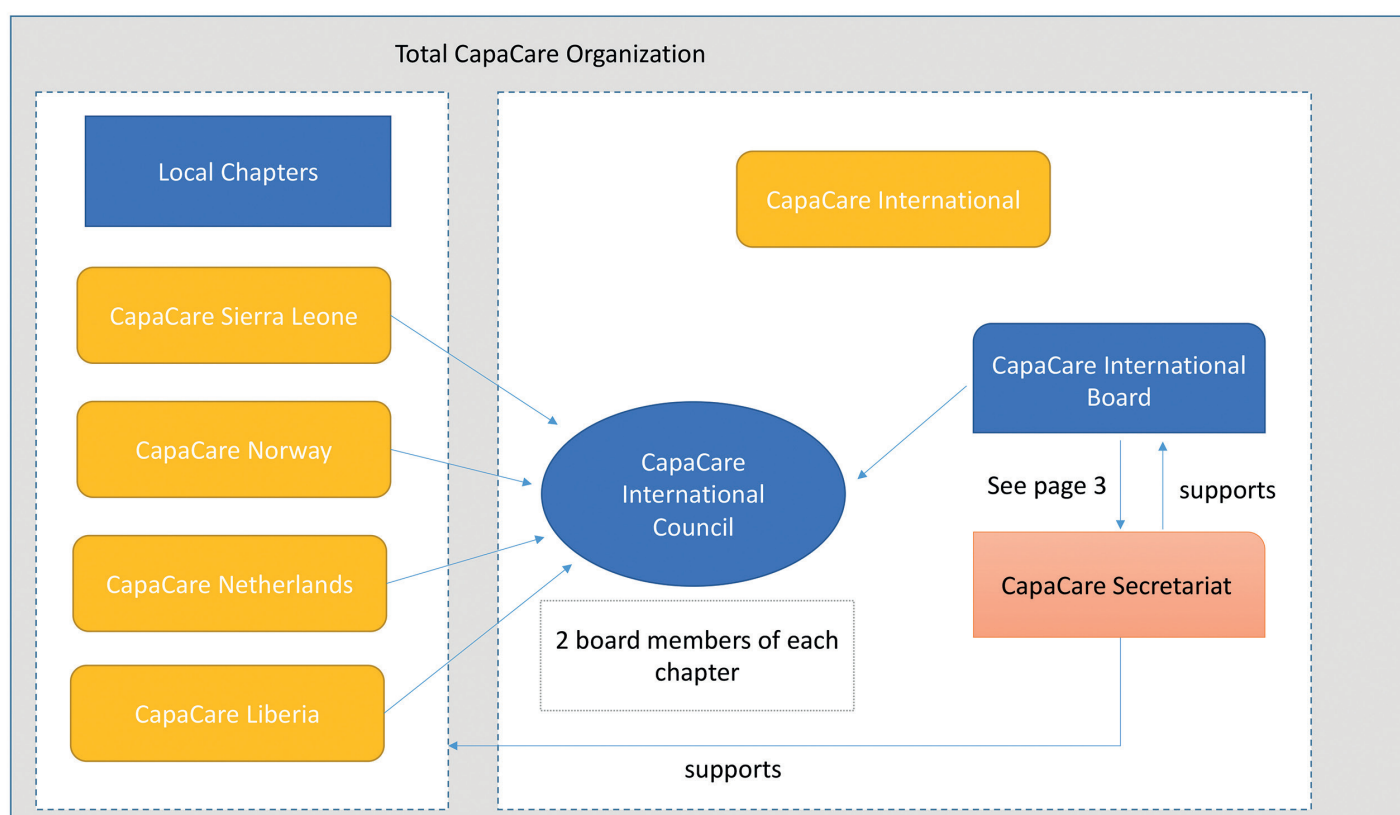


CapaCare International

CapaCare International has been developed as the entity that oversees and coordinates the activities of the national CapaCare Chapters. CapaCare International consists of the CapaCare International Council where two members of each national Chapter hold a seat. This is the highest decision-making body within the organisation. CapaCare International has an elected Board and is supported by a Secretariat. The main responsibilities of CapaCare International is to decide on all major matters in the organisation in order to make sure all Chapters agree on the activities of the organisation and how the organisation moves forward. This typically includes

election of the CapaCare International Board, approval of the main activities of the whole organisation on behalf of all the Chapters, approval of an overall CapaCare budget, approval of the vision, mission, and strategy of CapaCare and finally grant membership to new national Chapters.

The CapaCare International Council had their annual meeting in May 2022 and met again in December for a budget meeting. In between the Council meetings, the CapaCare Executive Board met digitally nine times in 2022.



CapaCare Sierra Leone

CapaCare Sierra Leone (CapaCare SL) was established in 2015, and is currently registered at the Ministry of Planning and Economic Development under registration number NNGO/634/2020-21. The organisation actively promotes increased access to emergency surgical and obstetric care in Sierra Leone by strengthening national human resources for those services. CapaCare SL also works to locally raise funds

and recruit health professionals in Sierra Leone to accomplish this purpose. The Board oversees CapaCare’s activities in Sierra Leone and advises both the local management in Masanga and the International Board. The activities of CapaCare SL are reported later under the section **“Surgical Training Programme, Sierra Leone”**.



CapaCare Norway

CapaCare Norway (CapaCare NO) has met online approximately bi-monthly, and for 2022 the Board has had six active working groups.

- As a longstanding project, the **Logbook Application Group** has continued the development of the logbook data collection and analysis throughout 2022 and made new plans for the coming year. Øyvind Veel Svendsen continues to lead the Logbook project.
- The **10th Anniversary** was an important working group for 2022, developing the CapaCare anniversary book, the symposium and the anniversary celebration. We look back at an inspiring and educational commemoration of the anniversary, meeting friends and colleagues from all around the world.
- The **Fundraising Group** has worked to increase private donations.
- The **Communications Group** has led social media coverage of CapaCare through Instagram and Facebook, and by maintaining the website.
- As a new project in 2022, we established the **Child Hernia Repair Project**, led by Johan Ahlbäck. The project will start by exploring the need for child hernia repair and the training of surgical personnel to perform such procedures in Sierra Leone. The funding is in place, and a journey to Sierra Leone is scheduled for early 2023.
- The final project of CapaCare Norway regards **research applications**. For 2022 we applied for one PhD position at the Norwegian University of Science and Technology. Unfortunately, the application was not granted, however, there is the potential to refine the application and try again for future announcements. This was a joint project with participants from different CapaCare chapters.



CapaCare Family, 10th Anniversary Symposium, Trondheim, 2022.



CapaCare - Netherlands

The objectives and our activities in 2022 were as follows:

1. To improve the quality of the education of health care workers by:

a) Assisting in the continuous development of the STP curriculum. The programme in Sierra Leone is adopted officially within the Ministry of Health and Sanitation (MoHS). 2022 was a transitional phase and this objective was put on hold, as the curriculum of the STP is now mainly developed by the School of Clinical Sciences Makeni (SCSM). In the future we will explore how to engage with SCSM to assist in improving the curriculum.

b) Selecting and guiding (guest) facilitators and trainers for the Obstetric Modules. In 2022, two emergency obstetric courses took place in Masanga. Support was given to the trainers during the preparation, stay and upon return by organising (de)briefing meetings with the international trainers.

c) Supporting the Programme Coordinators in Sierra Leone and offering 'peer-to-peer' support - 'interview'. In 2022 we investigated how best to support the coordinating staff of CapaCare and Masanga hospital. In discussions with international staff working in Sierra Leone it became apparent that formal interview meetings do not always have the intended supportive outcome as these meetings have to be held online which is not preferred and the busy working schedule in Masanga means planning these sessions can be a challenge. We are now looking for ways how to shape this support.

2. Fostering 'lifelong learning' of graduates of the Surgical Training Programme.

In 2022 we successfully organised the participation of nine SACHOs in the Global Surgery Summer School organised by Utrecht University. All sessions were quite interactive and so were the group assignments. The SACHOs participated online from Masanga Hospital and gave a poster presentation about the effects of climate change on surgery in Sierra Leone.

3. Establishing, reinforcing and maintaining a network of (new) partners within and externally to the Netherlands.

a) Collaboration with the Dutch Society of Surgery (NVvH) has been formalised in a pilot phase for three years, which will start in 2023. The plan is that the NVvH will participate in the organisation of surgical training courses in Liberia, by sending trainers and giving financial support. A visit for representatives of the NVvH to meet the Liberian stakeholders and the first course in surgical oncology is planned for the beginning of 2023.

b) The Wouter Nolet Foundation (WNF), in 2022 selected twelve CapaCare students for a scholarship. CapaCare Netherlands helped the WNF to review the applications sent in by candidates. The WNF supports these students with a scholarship to assist with their expenses during their surgical training.

4. Fundraising for designated projects and running costs of the organisation.

In Quarter 4 2021 CapaCare Netherlands approached Wilde Ganzen Netherlands for their support in fundraising for a new vehicle in Sierra Leone. A pledge was made by Wilde Ganzen to support \$15.000 if \$30.000 was raised through other means. Partially through a large private donation this goal was reached and the pledge by Wilde Ganzen was fulfilled.

In Quarter 4 of 2022, a digital donation system for single and periodic donations was set up that works well with the Dutch banking system. A few periodic donors were found, but the effort was mainly undertaken so future fundraising efforts could be done with more ease and less barriers to potential private donors.

In Quarter 3 and 4 of 2022 several grant applications were filed for two separate CapaCare Netherlands projects: two for an upcoming Continuous Professional Development course set for October 2023, and two for possible funding for participation of SACHOs in the yearly Dutch Global Surgery Summer School.

CapaCare Liberia

CapaCare Liberia was established in 2021 with the aim of improving access to surgical care in Liberia by training human resources. In 2022, we received NGO accreditation from the Ministry of Finance and Development Planning and started the first training activities.

The main objectives for 2022 included:

1. To engage stakeholders and establish partnerships to set up a surgical training programme in Liberia.
2. To conduct surgical training by providing a rural rotation and skills-based training courses for Medical Doctors in postgraduate training in Surgery and Obstetrics & Gynaecology.
3. To establish a local team and set up transparent programme monitoring systems.

In 2022, a Memorandum of Understanding was signed with the Liberian College for Physicians and Surgeons, John F Kennedy Medical Center (JFK) and Jackson F Doe Regional Referral Hospital (JFD) to support the specialisation for Medical Doctors in the fields of Obstetrics & Gynaecology and Surgery. We opened an office in JFD Hospital in Tappita, where the newly established local management team is situated. The first training activities started in April 2022 and since then several training courses and rural rotations have taken place.

Through a fundraising collaboration with CapaCare Netherlands and the Wilde Ganzen Foundation, we were able to purchase a vehicle for our activities in Liberia. Collaborations with other organisations and institutions are sought in order to be able to expand the scope of our work in Liberia in the future.



View of Jackson F Doe Regional Referral Hospital, Tappita from a distance.

Surgical Training Programme, Sierra Leone

Project Locations

Since the start of the Programme in 2011, Masanga Hospital has been the home of the Surgical Training Programme (STP) in Sierra Leone. It is the place where the local management team is based and where all the students commence their basic training. The cooperation with Masanga Hospital makes it possible to provide, besides the theoretical and skills training, practical courses in basic surgical skills. After several weeks in the Programme, the students are introduced to the wards, outpatient department and operating theatre.

After 12 months of basic training in Masanga, the students continue their clinical rotations in partner hospitals, for two rotations of five to six months each. In this period, the students will receive refresher and practical training and

gain experience in the management of obstetric and surgical emergencies.

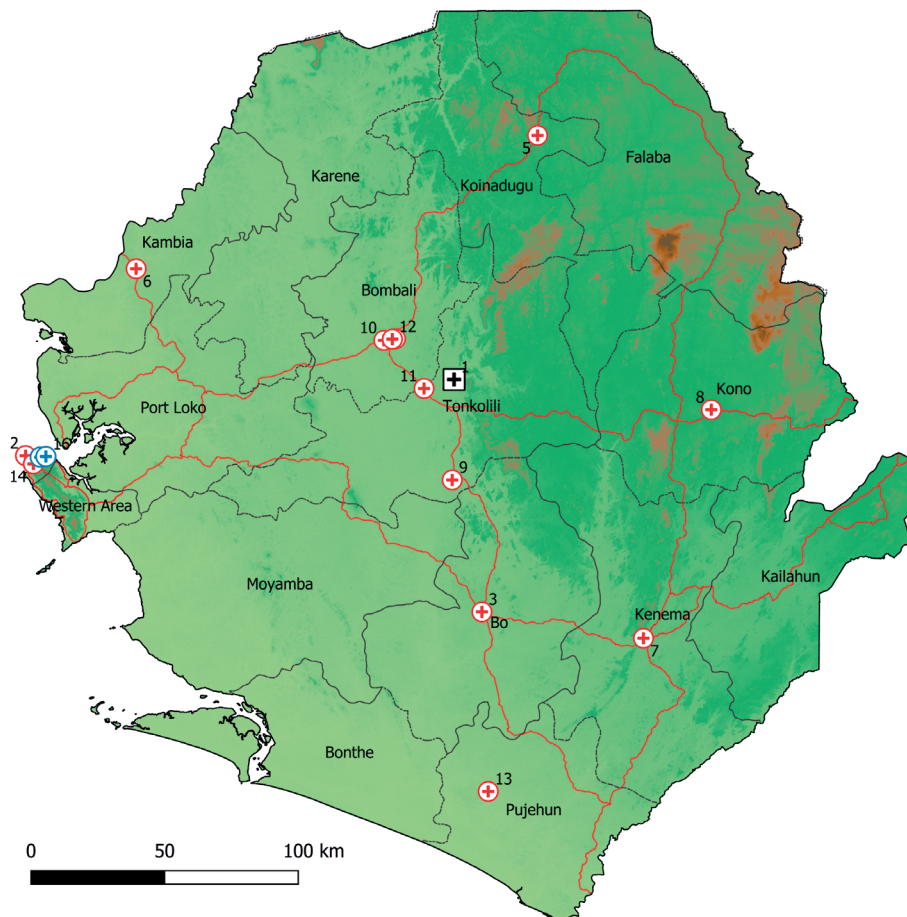
After successful completion of the rotations, the students take their final oral and written examinations at the end of year two, conducted by the Ministry of Health and Sanitation (MoHS) in collaboration with CapaCare. Upon graduation, the students enter a one-year housemanship stage (three months of obstetrics and three months of surgery) in the two largest tertiary governmental hospitals in Freetown, and the remaining six months they are posted in district hospitals. The housemanship is organised by the MoHS, facilitated by the School of Clinical Sciences Makeni.



Student from the Surgical Training Programme, Masanga Hospital.

Sixteen of the surgically most active hospitals in Sierra Leone with experienced surgeons, obstetricians and/or surgically inclined Medical Officers were active partners of the Training Programme in 2022 (Figure 1). These partner hospitals are selected on the basis of their surgical capacity, coverage

of supervision, and the availability of surgical tutors. The hospitals and their national and international staff have offered their premises to the Programme, ensuring that each candidate is exposed to the most skilled tutors presently available in the country.



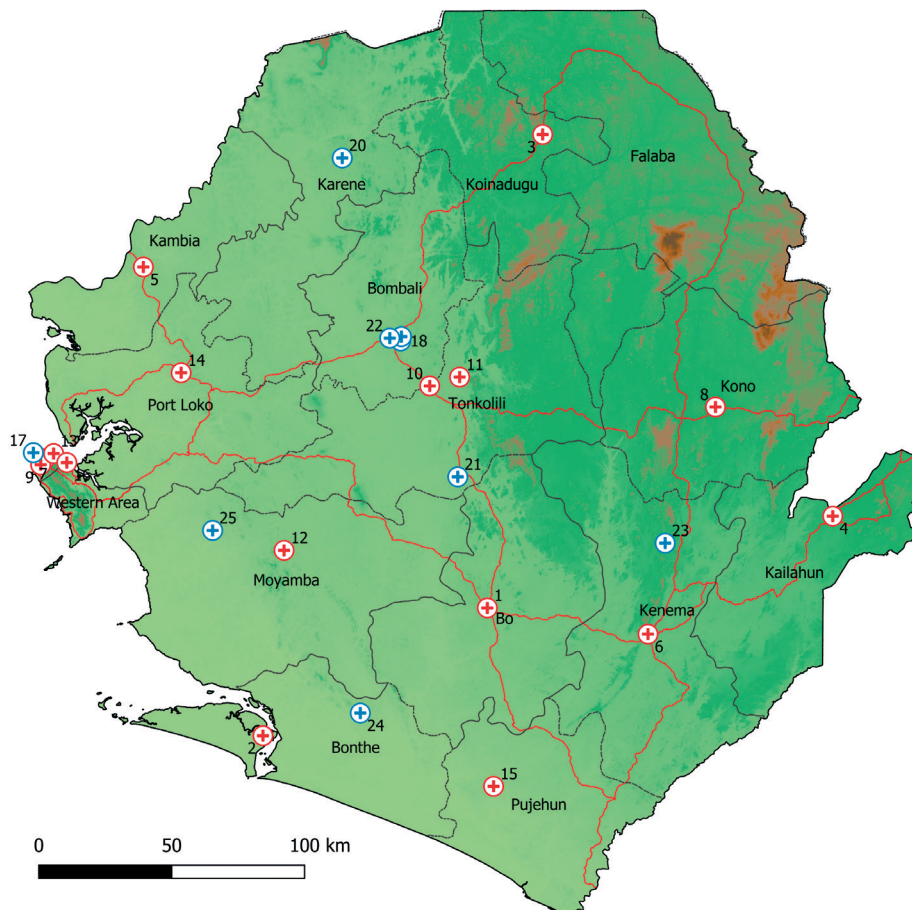
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|---|
| <p>+ Basic Training Centre</p> <ol style="list-style-type: none"> 1. Masanga Hospital <p>+ Rotation Hospitals</p> <ol style="list-style-type: none"> 2. Aberdeen Women’s Clinic, Freetown 3. Bo Governmental Hospital 4. City Garden Clinic, Makeni 5. Kabala Governmental Hospital 6. Kambia Governmental Hospital 7. Kenema Governmental Hospital 8. Koidu Governmental Hospital 9. Lion Heart Medical Center, Yele 10. Magbenteh Community Hospital, Makeni 11. Magburaka Governmental Hospital 12. Makeni Governmental Hospital 13. Pujehun Governmental Hospital 14. Wilberforce Military Hospital <p>+ Housemanship Hospitals</p> <ol style="list-style-type: none"> 15. Connaught, Freetown 16. PCMH, Freetown 17. District Hospitals |
|---|

Figure 1: Training Hospitals – Surgical Training Programme, Sierra Leone in 2022.

Graduate Locations

After successful completion of the training, the Surgical Assistant Community Health Officers (SACHOs) are posted by the government to the different hospitals (Figure 2). The number of hospitals where the SACHOs are posted remained the same as 2021, at 25 hospitals. The hospitals where the

SACHOs are posted consist of both governmental and private non-profit hospitals and have an essential role in the provision of emergency obstetric and surgical care in the country.



- | | |
|--|--|
| (+) Governmental hospitals | |
| 1. Bo Governmental Hospital | 14. Port Loko Governmental Hospital |
| 2. Bonthe Governmental Hospital | 15. Pujehun Government Hospital |
| 3. Kabala governmental hospital | 16. Rokupa government hospital, Freetown |
| 4. Kailahun Governmental Hospital | |
| 5. Kambia Governmental Hospital | (+) Private hospitals |
| 6. Kenema Governmental Hospital | 17. Aberdeen Women’s Clinic, Freetown |
| 7. King Harman Road Hospital, Freetown | 18. Branda Medical Center, Makeni |
| 8. Koidu Governmental hospital | 19. City Garden Clinic, Makeni |
| 9. Lumley Governmental Hospital | 20. Kamakwie Wesleyan Hospital |
| 10. Magburaka Governmental Hospital | 21. Lion Heart Medical Center, Yele |
| 11. Masanga Governmental Hospital | 22. Magbenteh Community Hospital, Makeni |
| 12. Moyamba Government Hospital | 23. Panguma Mission Hospital |
| 13. PCMH, Freetown | 24. UMC Hospital Matru |
| | 25. UMC Hospital Rotifunk |

Figure 2: Graduate locations Sierra Leone in 2022.

Output Student and Graduate

In 2022 **nineteen** new students for the STP (Surgical Training Programme) were recruited, **three female** and **sixteen male** including **two Medical Doctors**. One student dropped out of the Programme due to family challenges; one student did not show up for the training because the military did not grant him study leave.

From the total of nineteen new students, **thirteen** came from the School of Clinical Sciences in Makeni (SCSM) after completing their advanced diploma – most of them were direct school leavers.

In 2022 several meetings were held with the Ministry of Health and Sanitation (MoHS), particularly with the Director of Training, Professor Samai, the School of Clinical Sciences Makeni and the University of Sierra Leone (USL), leading up to the USL approving the affiliation of the School of Clinical Sciences Makeni as part of the University. This now means that students within the Programme will be granted

a bachelor's degree, on completion of the training, by the USL. The University of Sierra Leone includes four constituent colleges and has more than 21,000 students combined, making it the country's leading public academic training institution.

Our students in various partner hospitals were visited during **20** supervision trips – this enables CapaCare to keep close contact with supervisors and our students in partner hospitals. There are normally joint monitoring and supervision trips in collaboration with representatives from the MoHS, CapaCare and SCSM. Due to an unsafe and inadequate training environment in Port Loko Government Hospital, no students were sent to this facility in 2022. The CapaCare supervisory and monitoring team are in continuous discussion with the SACHO and some staff on the ground in Port Loko and if improvements are made, the collaboration will be picked up again in 2023.



The School of Clinical Sciences Makeni, Makeni.

In 2022 a total number of **six** students graduated including **two** students from the SCSM (the first set of students from the SCSM to graduate from the STP). No graduation ceremony was organised in 2022 but one is planned for 2023. The total number of graduates since the inception of the Programme is **70**.

In all trainings of the basic training programme, National Trainers (SACHOs) were trainers alongside International Trainers and the first training that will be given only by National Trainers will commence in 2023.

	January 2022		December 2022	
	Male	Female	Male	Female
Basic training	9	0	25	5
Housemanship	6	0	6	0
Graduates (MD)	59 (4)	5	70 (4)	5

Surgical output

Since the start of the programme in 2011, the students and graduates combined have participated in and performed more than **71,000 surgeries**. The total **number of operations for 2022 alone was 5,077**. Students within the initial two years of training performed 3,159, those in housemanships 47, while the graduates performed 1,868.

Out of the 1,868 procedures registered by graduates in 2022, 375 procedures (20%) were performed within Western Area. 415 of the surgeries performed by graduates outside of Western Area were caesarean sections. At the time of writing of this annual report, however, some data is yet to be submitted. This must be considered when interpreting these numbers. Additionally, the COVID-19 pandemic has most likely caused a reduction in surgical volume after 2020.

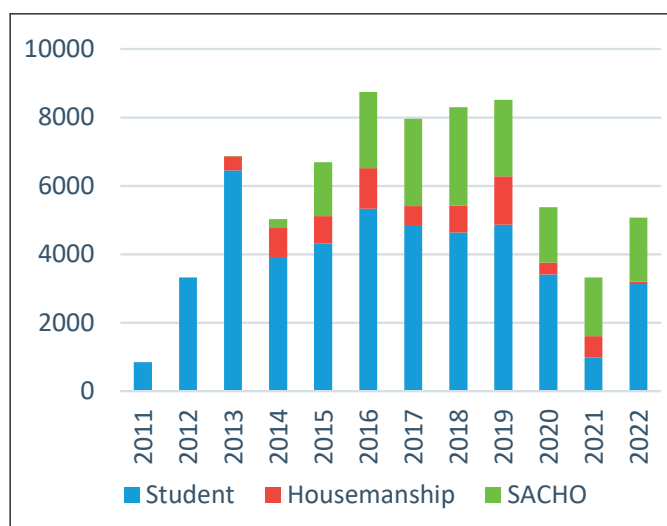
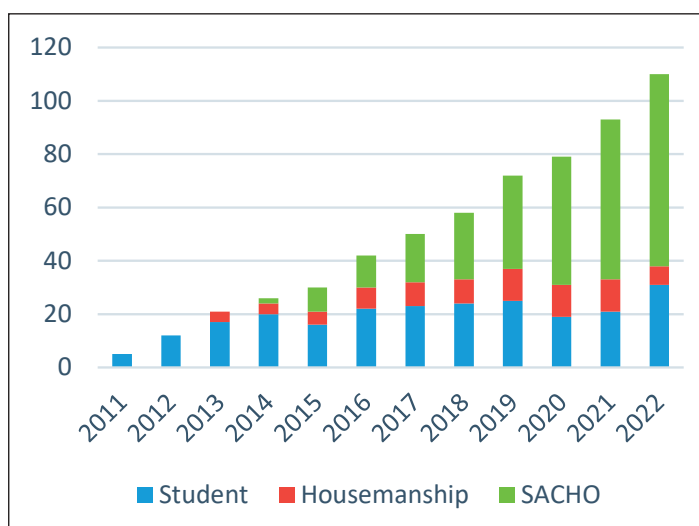


Figure 3: Accumulated number of students, interns, and graduates (left) in the programme and annual volume of surgical activity (right) since the start of the programme in 2011.



Newborn delivery, Masanga Hospital.

Role and procedures

The most common procedure for the students in 2022 was **inguinal hernia repair**. The most common procedure for the

graduates was **caesarean section**. The graduates performed over **91% of their surgeries fully independently**.

Students (incl. housemanship)				Graduates		
No	Procedure	n	%	Procedure	n	%
1	Inguinal hernia repair	734	22.9	Caesarean section	723	38.7
2	Caesarean section	571	17.8	Inguinal hernia repair	336	18.0
3	Appendectomy	253	7.9	Appendectomy	157	8.4
4	Laparotomy	166	5.2	Umbilical hernia repair	73	3.9
5	Umbilical hernia repair	116	3.6	Laparotomy	66	3.5
6	Hysterectomy	75	2.3	Myomectomy	53	2.8
7	Scrotal hydrocele	68	2.1	Hysterectomy	46	2.5
8	Skin graft	61	1.9	Strangulated hernia repair	41	2.2
9	Necrotectomy	60	1.9	Manual vacuum aspiration	40	2.1
10	Tubal ligation	50	1.6	Cystectomy	26	1.4
Total		2,154	67.2	Total	1561	83.6

Table 1: Top 10 procedures for students and graduates in 2022.

Students (incl. housemanship)				Graduates		
No	Role	n	%	Role	n	%
1	Surgeon supervised	1,388	43.3	Surgeon independent	1,702	91.1
2	Surgeon independent	983	30.7	Surgeon supervised	93	5.0
3	Assisting	768	24.0	Assisting	73	3.9
4	Observing	67	2.1	Observing	0	0
	Total	3,206	100.0	Total	1,868	100.0

Table 2: Role during operation for students and graduates in 2022.



Skin graft in progress, Masanga Hospital Operating Theatre.

Tutors and Trainers

A core element of the STP is module-based training by international and national tutors. These training modules are usually conducted in Masanga by Gynaecologists, Midwives, Orthopaedic Surgeons, Paediatric Surgeons, Surgeons and Surgical Assistant Community Health Officers (SACHOs). In 2022, the international trainers came from

Denmark, Germany, the Netherlands, Norway, and the United Kingdom. All international tutors are engaged on a voluntary basis. CapaCare provides support for transportation, accommodation, visas, and vaccines. The local tutors receive an honorarium for the training they provide. In 2022, 15 training modules and five CPD courses were conducted.

Module	Trainees	Duration	Month	Tutor
Emergency Obstetrics	STP	3 weeks	January	Marco Versluis (G), Heleen de Winter (MW)
Surgery & the Abdomen	STP	3 weeks	Jan / Feb	Lesley Hunt (S)
CPD Vascular Surgery	SACHO	1 week	February	Tom Gresnigt (S)
	STP	2 weeks	Mar / April	Tom Gresnigt (S)
Basic Surgical Skills	STP	2 weeks	April	Aatish Patel, Lamina Amara Conteh (SACHO), Ishiaka Konneh (SACHO), Lesley Hunt (S)
Basic Obstetrics	STP	1 week	May	Jaap Gunneweg (T), Rosa Roemers (T)
Radiology Ultrasound	STP	3 weeks	May / June	Abdul Richard (STP), Emmanuel SM Tamba (SACHO), Sayoh Kanneh (SACHO), Taymoor Ashgar (R)
Surgery & the Abdomen CPD – Summer School Global Surgery	STP	3 weeks	July	Ishiaka Konneh (SACHO), Katja Maschuw (S), Yembeh Mansaray (SACHO)
	SACHO	1 week	July	Ishiaka Konneh (SACHO), Katja Maschuw (S), Yembeh Mansaray (SACHO)
Advanced Surgical Skills (MDs)	MDs	1 week	July	Katja Maschuw (S), Thomas Ashley (S)
Abdominal Course	STP	2 weeks	July	Katja Maschuw (S), Yembeh Mansaray (SACHO)
Obstetrics Refresher	STP	1 week	August	Arvind Subramaniam (G), Yembeh Mansaray (SACHO)
Emergency Obstetrics	STP	2 weeks	August	Arvind Subramaniam (G), Amara Conteh (SACHO)
Advanced Surgical Skills CPD	MDs	1 week	September	Katja Maschuw (S)
Emergency Obstetrics CPD	SACHO	1 week	October	Friederike Rothe (G)
Emergency Obstetrics CPD	MDs	1 week	October	Friederike Rothe (G)
Basic Surgical Skills	STP	3 weeks	October	Katja Maschuw (S), Amara Conteh (SACHO), Yembeh Mansaray (SACHO)
Plastic Surgery	SACHO	3 days	November	Yvonne Smulders (PS)
Wet Lab (Pig Course)	STP	4 days	November	Thomas Ashley (S), Sayo Kanneh (SACHO), Yembeh Mansaray (SACHO)
Obstetrics Refresher	STP	1 week	November	Friederike Rothe (G), Amara Conteh (SACHO)

Table 3: Burn specialist in training (B), Gynaecologist (G), Gynaecologist in training (G), Midwife (MW), Orthopaedic Surgeon (O), Paediatric Surgeon and Paediatrician (PS), Radiologist (R), Tropical Doctor (T), Surgeon (S), Surgical Assistant Community Health Officer (SACHO), Surgical Training Programme students (STP).



Management Team office, Masanga Hospital during visit from International Staff and Board Members.

Apart from the trainers, there were also a number of support visits, mostly to offer programme support.

Purpose	Duration	Month	Support staff & Research
Programme Support	1 week	July	Annemarie van Duinen (NS)
Programme Support	1 week	Nov	Emma Margrett (NS) and Jessica Salazar (NS)

Table 4: *External funding, Board (B), Norwegian University for Science and Technology (NTNU), Photographer Filmmaker (P), Surgeon (S), Norway Staff (NS).



The road to Jackson F Doe Regional Referral Hospital.

Surgical Training Programme, Liberia

Project Locations

The main location for the programme in Liberia is situated at the Jackson F. Doe Memorial Regional Referral Hospital, Tappita, Nimba County. For Medical Doctors who are

following postgraduate training in Surgery or in Obstetrics & Gynaecology, Jackson F. Doe Hospital serves as a location for their rural rotation.



CapaCare Liberia, Jackson F Doe teams with members of the Liberian College of Physicians and Surgeons.

John F. Kennedy Medical Center, Monrovia, Montserrado County is the main training hospital for the postgraduate training programmes in Liberia. CapaCare is supporting

the postgraduate training in Surgery and Obstetrics & Gynaecology here by delivering different surgical training courses.





- | | |
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| <p> Basic Training Centre</p> <p>1. Jackson F. Doe Hospital, Tappita</p> | <p> Other Training site</p> <p>2. John F. Kennedy Medical Center, Monrovia</p> |
|--|---|

Figure 4: Training Hospitals – Surgical and Obstetric Residents Training in Liberia, 2022.

Surgical Output

Training activities started from April 2022 onwards after establishing the MoU. The surgical training is divided into two sub-activities:

- Rural rotation for Residents in Surgery and Obstetrics & Gynaecology.
- Surgical skills courses.



Hernia Repair Training at JFK Hospital, Monrovia, Liberia.

Rural rotation at Jackson F. Doe, Tappita, Nimba County: The postgraduate training in Liberia is accessible for Medical Doctors with at least two years of work experience. The training takes three years, with rotations in different departments. Residents are evaluated annually before

starting the next year. One of the requirements of the Liberian College of Physicians and Surgeons (LCPS) and the West-African College of Surgeons (WACS) during postgraduate training is a rural attachment.

Number	Year	Arrival	Specialisation	Gender	PG Year	Period	Duration (weeks)	Surgical procedures during rotation*
1	2022	May	Surgery	M	3rd	May	4	19
2	2022	May	Surgery	M	3rd	May	4	19
3	2022	June	Surgery	M	3rd	June	4	19
4	2022	June	Surgery	M	3rd	June	4	18
5	2022	15-Oct	Surgery	F	2nd	Oct-Dec	8	27
6	2022	15-Oct	Surgery	M	2nd	Oct-Dec	8	37
7	2022	15-Oct	OBGYN	M	After graduation	Oct-Nov	6	17
8	2022	15-Oct	OBGYN	M	3rd	Oct-Dec	8	28
9	2022	15-Nov	OBGYN	M	3rd	Nov-Jan	8	46

*Includes procedures performed independently, with assistance and assisting.

Table 5: Overview of rural rotation for postgraduate training at Jackson F. Doe Hospital in 2022.

In 2022, the residents participated in 230 surgical procedures during their rural rotation. This gives an average of 17 surgical procedures per month during their rotation at JFD.

In 46.5% of these operations the Resident was the surgeon (either independent or supervised), whereas in 53.5% of cases they were assisting.



Obstetric Training at JFK Hospital, Monrovia, Liberia.

Roles and Procedures

The top 10 most commonly performed procedures during the rotation are displayed in the two tables below.

	Procedure	n	% of total
1	Caesarean section	35	38.5
2	Ectopic pregnancy (salpingectomy)	13	14.3
3	Abdominal hysterectomy	11	12.1
4	Myomectomy	6	6.6
5	Bilateral tuba ligation	6	6.6
6	Salpingo-oophorectomy	5	5.5
7	Vaginal hysterectomy	4	4.4
8	Tuboplasty	4	4.4
9	Pelvic organ prolapse surgery	2	2.2
10	Ruptured uterus repair	2	2.2
	Total	88	96.7

Table 6: Top 10 procedures Obstetrics & Gynaecology.

	Procedure	n	% of total
1	Groin hernia repair	49	35.3
2	Exploratory laparotomy	17	12.2
3	Umbilical hernia repair	12	8.6
4	Debridement	9	6.5
5	Appendectomy	8	5.8
6	Fournier's gangrene/scrotal exploration	5	3.6
7	BPH	4	2.9
8	Cholecystectomy	4	2.9
9	Secondary closure	3	2.2
10	Orchidectomy	3	2.2
	Total	114	82.0

Table 7: Top 10 procedures General Surgery.

Tutors and Trainers

Surgical skills courses: In total, there were seven skills-based courses in 2022 with a total number of 59 participants. Table 8 gives an overview of the courses.

Month	Topic	Duration	Location	Participants	Participants	Trainer(s)
April	Basic Surgical Skills	4 days	JFK ¹	18	Residents in Surgery PGY 1 (3), Y2 (2) and Y3 (4). Residents in OBGYN PGY 1 (4) and Y2 (5).	Katja Maschuw
May	Knot-tying and suturing	4 days	JFD ²	6	4 interns, 2 physician assistants	Katja Maschuw
September	Advanced Emergency Obstetrics	1 week	JFK	15	Residents in OBGYN: PGY 1 (4), Y2 (2), Y3 (5) and post-graduation (4)	Elinor Medd, Peter Scott
September	Basic Emergency Obstetrics	4 days	JFD	5	Interns (4) and physician assistant (1)	Elinor Medd, Peter Scott
October	Basic Surgical Skills	4 days	JFK	8	Residents PGY1 in Surgery (3) and in OBGYN (5)	Katja Maschuw
November	Common training surgical techniques Surgery & OBGYN	1 week	JFD	4	Residents in OBGYN PGY3 (1) and Surgery PGY2 (2), specialist OBGYN (1)	Katja Maschuw
November	Knot-tying and suturing	1 week	JFD	5	Interns	Katja Maschuw

1 John F. Kennedy Medical Center, Monrovia, Montserrado County

2 Jackson F. Doe Hospital, Tappita, Nimba County

PYG = postgraduate year

Table 8: Overview of skills-based courses in 2022.



Training at JFK Hospital, Monrovia.

Programme Support

Visits for programme support and research to Liberia in 2022 can be seen in the table below.

Purpose	Duration	Month	Staff
Programme support & WACS conference	1 week	March	Alex van Duinen, Thomas Ashley, Rosa Roemers, Jaap Gunneweg
Introduction training of finance/admin officer	4 days	July	Annemarie van Duinen, John Mohamed Turay
Programme support and administrative training	3 days	November	Emma Margrett

Table 9: Programme and research support.



CapaCare Liberia team members and residents in Surgery during their rotation in JFD Hospital, Tappita.

Media and Publications

– Media Coverage

CapaCare's main communication channels are through our website www.capacare.org and social media. According to Google Analytics, our website was viewed more than 6,200 times by more than 5,100 individual users in 2022.

In 2022, CapaCare continued to increase its presence on social media. Our Facebook site has 1,200 followers and we posted 43 times in 2022, ten more than the year before. The posts had various content, from insight into our educational programmes to vacant positions and fundraising events. We also used our Facebook site to pay our respects for the passing of a dear colleague. We promoted two organisation-led fundraising campaigns: '22k for CapaCare in Sierra Leone' and 'CapaCare Christmas Fundraiser'. In addition, six private fundraising campaigns, such as Birthday fundraisers, were set up by followers. In total, Facebook fundraisers collected 172 donations, an increase from the previous year.

In 2022, CapaCare continued to build our presence on Instagram. We posted 72 times with various content, 33 more than the year before! We have also been present

through Instagram stories for 108 days in 2022 – almost twice the frequency of the year before. The captions of these posts and stories informed our audience about our surgical education in Sierra Leone and Liberia, surgery registration procedures, CapaCare's partner organisations, attendance at research conferences and political debates, the 10th Anniversary symposium and fundraising campaigns. We did three giveaways to raise awareness and create engagement amongst our followers and sent 10th Anniversary CapaCare books to the winners. We also ran a student takeover for several weeks. Erika, Guro, Richard and Sigrid-Anne, four medical students from Norway visited Sierra Leone for data collection and shared stories from their research.

In 2021, the number of Instagram followers more than doubled, from approximately 220 to 500. For 2022, the numbers increased further to 665 followers. Our followers are mostly women (70%), 25 – 34 years old (51%), living in Norway (38%), the Netherlands (23%) and Sierra Leone (10%).



CapaCare Sierra Leone staff and visiting CapaCare Norway staff outside the UNFPA offices in Freetown.

Media and Publications

– Publications

Underscored – Contributions from CapaCare Board members, staff, trainers, trainees and graduates.

Scientific peer-review publications:

1. [Adde HA, van Duinen AJ](#), Andrews BC, [Bakker J](#), Goyah KS, Salvesen Ø, Sheriff S, Utam T, Yaskey C, Wesier TG and [Bolkan HA](#). Mapping population access to essential surgical care in Liberia using equipment, personnel, and bellwether capability standards. **BJS**, 2023, 110, 169-176.
2. Shukla M, Mohan M, [van Duinen A](#), Gadgil A, [Bakker J](#), Bhushan P, Roy N. Assessing geographical and economic inequalities in caesarean section rates between the districts of Bihar, India: a secondary analysis of the National Family Health Survey. **BMJ Open**. 2022 Jan 6;12(1).
3. van Kesteren J, Meylahn-Jansen PJ, [Conteh A](#), Lissenberg-Witte BI, [van Duinen AJ](#), [Ashley T](#), Bonjer HJ, [Bolkan HA](#). Inguinal hernia surgery learning curves by associate clinicians. **Surg Endosc**. 2022 Oct 27.
4. [Adde HA, van Duinen AJ](#), Sherman LM, Andrews BC, Salvesen Ø, Dunbar NK, Bleah AJ, Weiser TG, [Bolkan HA](#). A Nationwide Enumeration of the Surgical Workforce, its Production and Disparities in Operative Productivity in Liberia. **World J Surg**. 2022 Mar;46(3):486-496.
5. van Kesteren J, [van Duinen AJ](#), Marah F, [van Delft D](#), Spector AL, Cassidy LD, Groen RS, Jabbi SB, Bah S, Medo JA, Kamanda-Bongay A, [van Leerdam D](#), [Westendorp J](#), Mathéron HM, Mönnink GLE, Vas Nunes J, Lindenbergh KC, Hoel SK, Løvdal SM, Østensen MN, Solberg H, Boateng D, Klipstein-Grobusch K, van Herwaarden D, Martens JPJ, Bonjer HJ, Sankoh O, Grobusch MP, [Bolkan HA](#); PRESSCO 2020 study group. PREvalence Study on Surgical Conditions (PRESSCO) 2020: A Population-Based Cross-Sectional Countrywide Survey on Surgical Conditions in Post-Ebola Outbreak Sierra Leone. **World J Surg**. 2022 Nov;46(11):2585-2594.
6. Bakke E, Øseth EH, Fofanah T, Sesay I, [van Duinen A](#), [Bolkan HA](#), [Westendorp J](#), Lonnee-Hoffmann R. Vacuum births and barriers to its use: An observational study in governmental hospitals in Sierra Leone. **BMJ Open**. 2022 Nov 22;12(11):e060773.
7. [Bolkan HA](#). Global kirurgi. **Tidsskr Nor Laegeforen**. 2022 Nov 7;142(16).

Presentations (online and in-person):

The most significant presentations by CapaCare staff and Board Members in 2022 were:

Symposium: Global Surgery in a Changing World 13th of May 2022, Trondheim, Norway

Presentations by: Håvard Adde, Jurre van Kesteren, Thomas Ashley Tairu Fofanah and Alex van Duinen

- Met and unmet surgical need in Liberia.
- PREvalence Study on Surgical Conditions (PRESSCO) in Sierra Leone.
- Training of medical doctors and associate clinicians: the CapaCare Programme.
- Training of medical doctors and associate clinicians: experience from the field.
- Caesarean Sections in Sierra Leone.

West-African College of Surgeons (WACS) Conference, March 2022, Monrovia, Liberia:

Presentations by: Alex van Duinen, Thomas Ashley, Katja Maschuw, Juul Bakker:

- Prevalence, incidence, repair rate and morbidity of groin hernias in Sierra Leone – a cross-sectional household study.
- Outcomes after elective inguinal hernia repair performed by associate clinicians versus medical doctors in Sierra Leone.
- Catastrophic expenditure and impoverishment after caesarean section in Sierra Leone: an evaluation of the free health care initiative.
- A nationwide enumeration of the surgical workforce, its production, and disparities in operative productivity in Liberia.
- Impact of surgical infrastructure and personnel on volume and availability of essential surgical procedures in Liberia.
- Changes in surgical volume, workforce, and productivity in Sierra Leone between 2012 and 2017. (poster presentation)

Liberian College of Physicians and Surgeons (LCPS) Annual Conference, September 2022:

- Presentation by Alex van Duinen.

Global Health Day, Norwegian University of Science and Technology (NTNU), October 2022:

- Sustainable partnership 10 success factors – examples of CapaCare's work in Sierra Leone, by Håkon A. Bolkan.

Global Health Norway Annual Conference, November 2022:

- From research to policy - case study from introduction of a new surgical cadre in Sierra Leone, by Håkon A. Bolkan.

Partners / Donors

CapaCare has continued collaboration with our main partners in 2022. Those have been the United Nations Population Fund (UNFPA), Torun and Ole's Stiftelse, and the Norwegian Agency for Development Cooperation (NORAD). All main sponsors have supported CapaCare for several years.

The Norwegian University of Science and Technology (NTNU) and Trondheim University Hospital, St. Olav have contributed with funds for the evaluation of the initiative via three PhD scholarships, and medical students writing their master thesis related to CapaCare's work.

Since 2015 CapaCare has been an Implementing Partner of UNFPA in Sierra Leone. Annual and quarterly plans and budgets are submitted to the UNFPA, and all the spending in Sierra Leone is audited both by internal and external UNFPA auditors as well as the registered accountant firm Bertin & Bertin based in Sierra Leone.

Masanga Hospital Rehabilitation Project continues to be the main partner in Sierra Leone together with the Sierra Leonean Ministry of Health and Sanitation (MoHS). The MoHS continues to grant three-year paid study leave for the Community Health Officers enrolled from the governmental sector. The Ministry also takes part in interviewing new candidates and act as exam invigilators. Finally, it is the Ministry that oversees the internship - the last part of the training. To date, there has been good cooperation with the Ministry to ensure local ownership. CapaCare has also received substantial support from private donors.

We were glad to be collaborating with the Wilde Ganzen Foundation again to be able to purchase one vehicle in Sierra Leone and one in Liberia.

We would like to thank every individual supporter, donor, agency, Trust and Foundation for their invaluable support over the last eleven years. Without which, our work would not be possible.



Ministry of Health and Sanitation



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Financial Overview

Finance – key figures

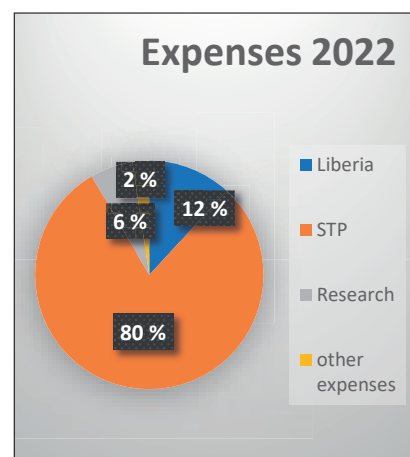
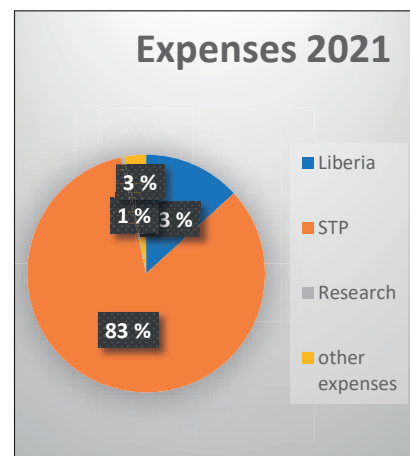
Both the financial report of CapaCare Norway and CapaCare Sierra Leone will be made available online at www.capacare.org.

Income

For ongoing activities, income in 2022 was 3.6 million NOK, compared to 4.9 million in 2021, of which 1.1 million NOK was received in Sierra Leone. Most of the income was for the Surgical Training Programme in Sierra Leone and was donated by Norad and UNFPA. Furthermore, funds have been received from several research institutions and from private donors.

Expenses

Expenditure in 2022 was 4.6 million NOK compared to 4.5 million in 2021, an increase of 2%. In both years most of the expenses (85%) were spent on the Surgical Training Programme in Sierra Leone.



We want to thank everybody that has contributed to the work of CapaCare and for the support that we have received!

CapaCare International Executive Board

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Masanga, Sierra Leone
Amsterdam, Netherlands
Monrovia, Liberia

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Data collection in Sierra Leone.



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Medical education and training to increase the number of skilled staff at district hospitals

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