



Gradian Health Systems

Annual Report 2016

**Gradian Health Systems** is a nonprofit medical technology company that equips low-resource hospitals to perform safe surgery. We provide appropriate equipment, clinical and technical training, and ongoing customer service to ensure that hospitals can deliver anesthesia and surgical care safely and economically. Blending a nonprofit mission with an industry approach to designing and sustaining medical technology, our model is built to help health providers operate with confidence – no matter what.



## Technology

We design products for some of the most challenging surgical settings in the world. Our core technology—the **Universal Anaesthesia Machine (UAM)**—is a CE-certified general anesthesia workstation that functions without electricity and medical oxygen.



## Training

For every installation, we provide on-site product training for hospital staff, led by local clinicians and biomedical engineers. We also offer broader clinical trainings, refresher courses and instructional resources in a variety of languages and formats.



## Service

Our service warranty guarantees preventive maintenance, repairs and spare parts for two years. All technical support is carried out by technicians in each of our markets, with additional support via email, phone and WhatsApp.

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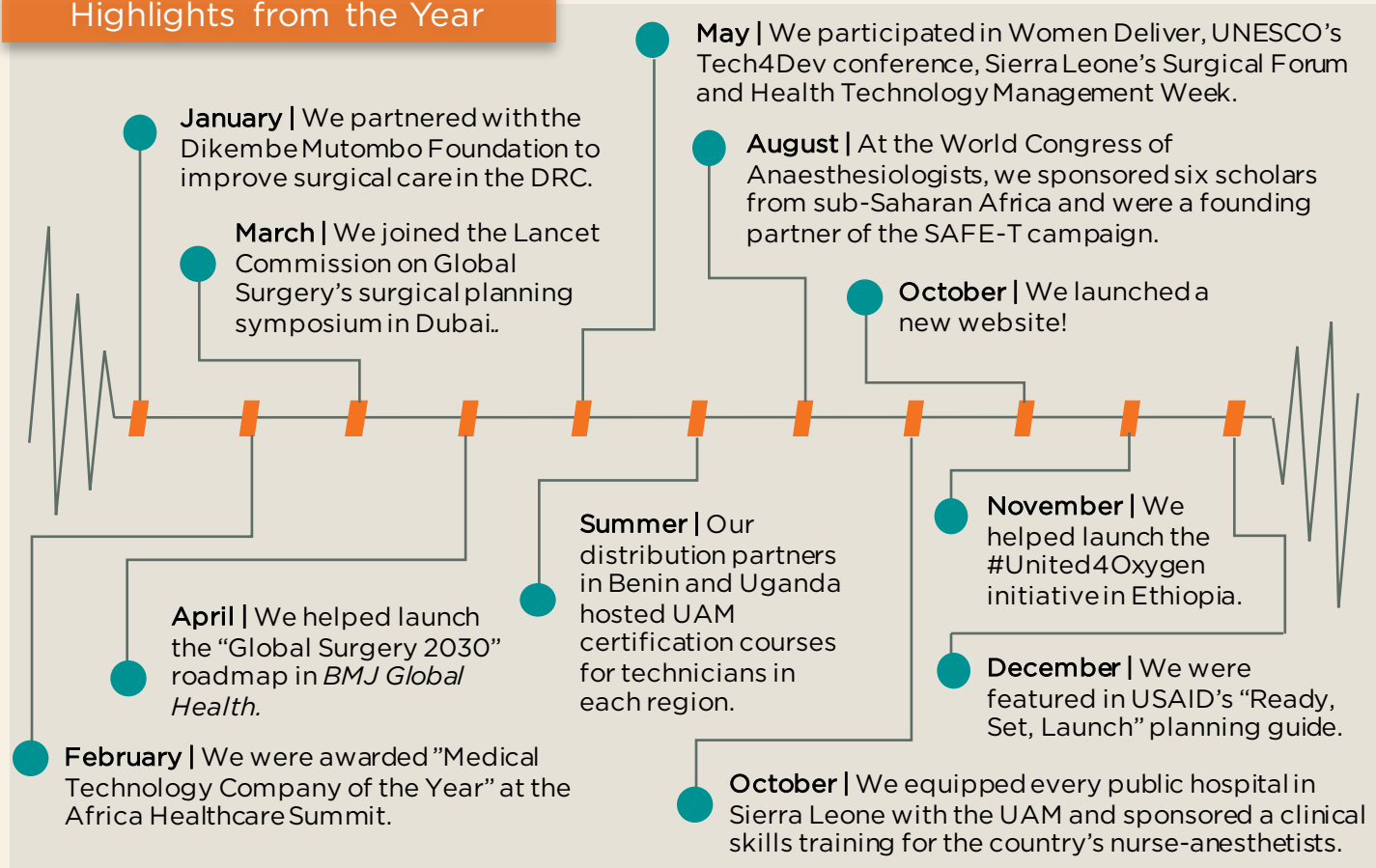




## 2016 Snapshot

Gradian celebrated its fifth anniversary in 2016 with a number of milestones. We shipped over 100 Universal Anaesthesia Machines (UAMs) to hospitals in 14 countries; trained hundreds of anesthesia providers; expanded our biomedical service network to cover new territories; and eclipsed **100,000 surgeries supported** by the UAM. Nearly half of our placements came from competitive tenders and all relied upon our strong partnerships with in-country distributors. Our safe surgery advocacy programs took us to the UN, the Lancet Commission on Global Surgery, the G4 Alliance executive board and policy outreach around the world. This annual report is a brief summary of our activities, and we welcome your questions and comments.

### Highlights from the Year





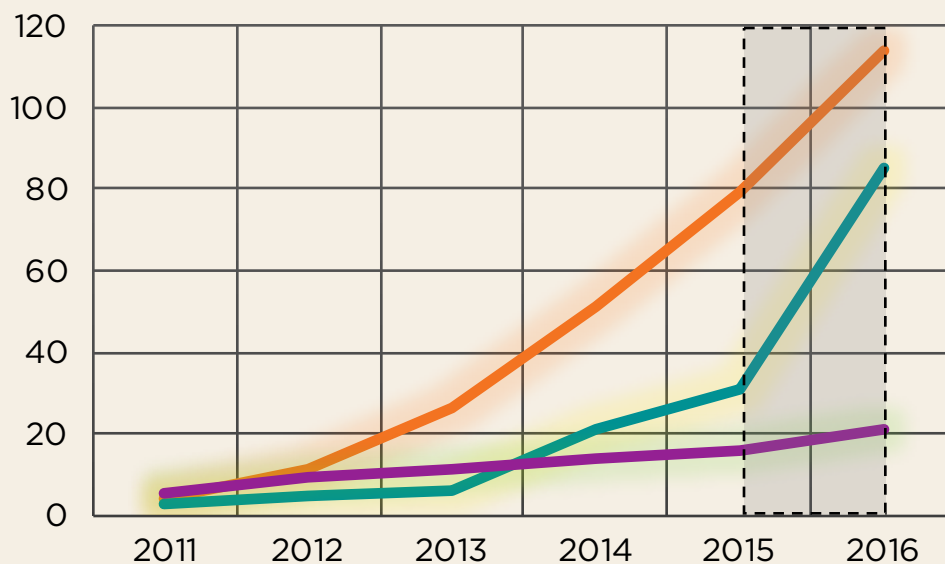
## Technology Highlights

Start-ups can often identify the inflection point at which they began to scale. For Gradian, that was 2016. In one year, we nearly doubled our installed base of UAMs across 22 countries while maintaining our commitment to training and support for each one. We are now helping more than 200 operating theaters provide safe, reliable anesthesia care.

Last year, we saw a steady increase in installations in East, Central and Southern Africa—our most active market—with the addition of a new country in the DRC and a burst of activity in Uganda. Our growth was particularly pronounced in West Africa, thanks to our largest-ever installation in Sierra Leone. And we saw modest gains in Asia and the Caribbean, including an expansion into Laos.

### UAM Installations: 2011-2016

- East, Central & Southern Africa
- West Africa
- Asia & the Caribbean



#### User Testimonial

*“The UAM has been a major help for us. It is reliable, easy to use, great for monitoring patients and dependable when the power fails. We used to replace our oxygen cylinder every six weeks. But with the UAM, we’ve gone six months without needing a new one!”*

—Isaac Tembo, Clinical Officer, Mwandu Mission Hospital (Zambia)

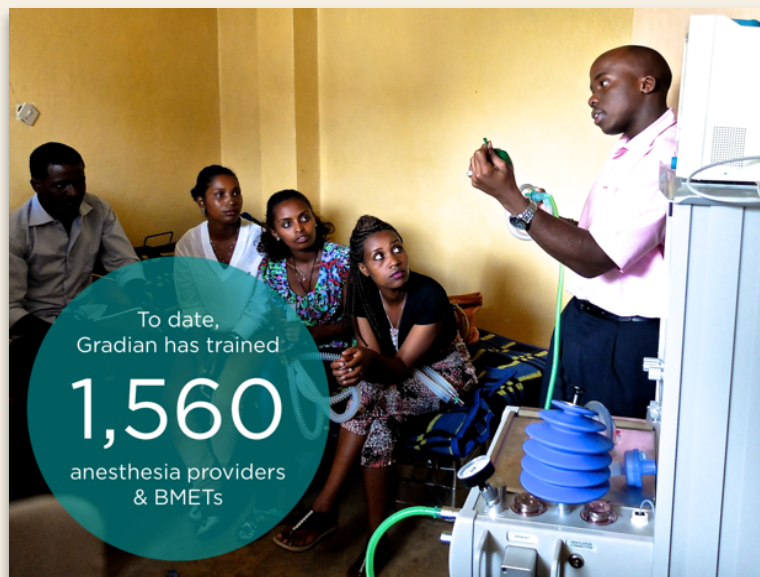




## Training Highlights

As a manufacturer of medical equipment, we have a responsibility to ensure that our users have the skills to operate the UAM safely and effectively. That's why training is hardwired into our mission at Gdian, pairing UAM installations with on-site product trainings for each hospital's clinical and technical staff. This year, we coordinated dozens of trainings across 14 countries. We also rolled out a new week-long certification course for biomedical equipment technicians (BMETs) in our key markets so we can confidently respond to any and all service requests.

Perhaps our most significant training accomplishment in 2016 was in Sierra Leone. In October, Gdian worked with the Sierra Leone Ministry of Health and Sanitation to install UAMs at every public hospital in the country. To ensure that each hospital could deliver anesthesia confidently, we sponsored the Johns Hopkins University School of Medicine to conduct a month-long clinical training course on inhaled general anesthesia and patient management for the country's nurse-anesthetists. Taking a decentralized "train the trainers" approach covering Sierra Leone's four provinces, the course resulted in more than 50 newly-trained anesthesia providers and a sustainable training environment to support the country's revamped surgical capacity. Hopkins will be hosting a refresher course in 2017 to assess the skills and knowledge of the trainees.



### Trainer Perspective

*"Each of Sierra Leone's public hospitals can now offer more and safer surgical procedures than they could previously, bringing much-needed care to the millions of patients they serve."*

—Dr. John Sampson, Associate Director of Global Surgical Care, Johns Hopkins University School of Medicine



## Customer Service Highlights

It's important to remember that all medical devices require maintenance and repairs, which means there must be a direct line between manufacturers, technicians and customers. In 2016, we streamlined our capacity to respond to service requests through local support. We also collected valuable qualitative and quantitative user feedback to understand our impact and how we can do better. Thanks to fantastic teams of in-country distributors and technicians, our hospital interactions (maintenance checks, repairs, follow-ups and data collection) were up, our response time was down and our customers could operate with confidence knowing their UAM and support system were in working order.

In 2016, we had...

- 484 post-installation customer interactions
- 178 successful customer service responses
- 79 data collection site visits
- 200+ satisfied customers

### User Testimonial

While operating on a patient in Benin, the surgical team at St. Jean de Dieu Hospital noticed an error message on the UAM's ventilator monitor, keeping them from properly ventilating the patient. The hospital quickly got in touch with Gadian's distributor in Benin—Homintec—who called Gadian for remote support. Our service team diagnosed the issue and relayed the repair, getting the ventilator fixed in time to complete the operation.

*"I admired the availability and timeliness of Homintec. I told them and the UAM technical team congrats for this troubleshooting."*

—Victor Naroumbo, Maintenancier, St. Jean de Dieu Hospital



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