Our mission is to ensure that no patient dies because basic safety checks and a pulse oximeter were not used during surgery.
234 million operations take place worldwide each year, with 31 million patients at risk when their surgery takes place without a pulse oximeter – the most important monitoring device in anaesthesia.

A pulse oximetry gap of 77,000 operating rooms in low-resource countries – compounded by low uptake of the WHO Surgical Safety Checklist – results in anaesthesia mortality up to 1000 times higher than in high-resource countries.

Lifebox is a UK-registered charity founded in April 2011 by representatives of the Harvard School of Public Health and Brigham and Women’s Hospital, the World Federation of Societies of Anaesthesiologists and the Association of Anaesthetists of Great Britain & Ireland.

We work to save lives by closing this global pulse oximetry gap and promoting use of the Checklist.

Images from Cardiac Institute, Ethiopia - Hospital Nacional Nor Occidental, Honduras – Sandema District Hospital, Ghana
How we work

The primary aim of Lifebox is to make surgery safer. We are doing this by encouraging use of the WHO Surgical Safety Checklist and providing an essential piece of monitoring equipment.

During 2011 we have collaborated with anaesthesia organizations and national societies in countries around the globe to raise awareness of the need for the Checklist and for universal pulse oximetry. We have worked with medical manufacturers to secure the oximeters, and with Ministries of Health and anaesthesia providers at a grass-roots level to identify need and deliver education and training. The charity Smile Train has provided extensive funding to support the roll-out of oximetry across the globe.

Through targeted aims and broad collaboration, we are making a positive difference to the survival of surgical patients worldwide.

*Images from Peking University Stomatology Hospital, China – Cardiac Institute, Ethiopia*
During 2011 we distributed nearly 1,500 Lifebox pulse oximeters to hospitals and healthcare facilities worldwide. As each oximeter is used on between 25-30 patients a week, this year alone we have helped improve the safety of surgery and anaesthesia for around two million patients.

However, Lifebox is about more than just distribution of essential equipment – we believe that training, education and ongoing monitoring are key components of any sustainable improvement programme.

Our experts have developed an extensive education package for self-learning and classroom teaching, included with every Lifebox pulse oximeter we ship. We have also run in-country workshops to support long-term, national roll-out of pulse oximetry.

The first such workshop took place in Mbarara, Uganda in July this year, delivering training to more than 100 anaesthesia providers from across the country. Further workshops are planned in Eritrea, Nepal, Sierra Leone, Rwanda, Ethiopia and across the Western Pacific region in 2012.

Images from Gertrude’s Hospital, Kenya – Lifebox training workshop, Uganda – Hayatabad Medical Complex, Pakistan
Where we worked in 2011
In 2011 we delivered pulse oximeters to ORs in 47 countries:

- Azerbaijan, Bangladesh, Bolivia, Cambodia, Cameroon, China, Côte d'Ivoire, DR Congo, Djibouti, Ecuador, Eritrea, Ethiopia, Georgia, Ghana, Haiti, Honduras, India, Indonesia, Kazakhstan, Kenya, Lao PDR, Mali, Malawi, Nepal, Nicaragua, Nigeria, Pakistan, Paraguay, Philippines, Russian Federation, Rwanda, Senegal, Sierra Leone, Solomon Islands, South Sudan, Sri Lanka, Tajikistan, Tanzania, Thailand, Timor-Leste, Tonga, Uganda, Ukraine, Uzbekistan, Viet Nam, Yemen, Zambia.

“We have got your wonderful gift and it is of immense benefit to the patients and the center. I thank you for the kind gesture.” Aabhari Plastic Surgery Center, India

“Your kind donation will go a long way in providing a safe environment during surgery.” St Frances Cabrini Medical Center, Philippines

“I found the Lifebox to be robust with an excellent screen visible from a distance and in poorly lit environments. The audible signal and alarm is very useful. An added great advantage is the heart rate monitor.” Black Lion Hospital, Ethiopia

*Images from Queen Elizabeth Hospital, Malawi – Mbarara Teaching Hospital, Uganda – Krasnoyarsk Children’s Hospital, Russian Federation – Peshawar Hospital, Pakistan*
The impact of the WHO Surgical Safety Checklist

If the WHO Surgical Safety Checklist was a new wonder drug, universal uptake would be mandatory.

At least half a million deaths per year would be preventable with effective implementation of the Checklist worldwide.

Multiple studies prove that it reduces the complication and mortality rates for surgical procedures by more than 30%, regardless of geography or the size and wealth of the facility in which it is used.

However, as an effective and inexpensive way of drastically improving surgical safety, it is critically important in the most resource-poor settings.

Pulse oximetry is an essential component of the Checklist, and adoption of the Checklist in turn forms an integral part of the Lifebox mission and education package.

At our first national education workshop in Uganda, in July of this year, we delivered training in both pulse oximetry and the Checklist.

Ugandan trainees told moving stories of how the basic checks included in the Checklist – such as completion of the instrument, sponge and needle count before the patient leaves the operating room – save lives. You can read more about this on our blog at http://saferurgery.wordpress.com.
Collaboration with Smile Train

Safe surgery is impossible without safe anaesthesia, and throughout 2011 we have worked closely with the world’s largest cleft lip and palate charity, Smile Train.

Thanks to a Smile Train grant of more than quarter of a million dollars we have been able to send Lifebox pulse oximeters and training materials to over 400 of their partner hospitals and facilities worldwide. In 2012 we will distribute an additional 1,000 oximeters reaching even more of their partners, and safeguarding infinitely more children.

“We are proud of our support of Lifebox which ensures that our partner hospitals around the world are given the tools to provide the safest and highest quality environment to our Smile Train patients.”

Priscilla Ma, Executive Director, Smile Train

Our collaboration with Smile Train provides a model for our relationship with other non-governmental and charitable organizations:

Working together to deliver the safest possible surgical and anaesthesia care to patients by providing Lifebox pulse oximeters and essential training to healthcare professionals.
Advocacy and outreach

Healthcare professionals are our most passionate and knowledgeable advocates. The support Lifebox has received from national anaesthesia societies and other organizations has been invaluable in our start-up year, both in terms of funding and support for awareness-raising.

Members of the American Society of Anesthesiologists launched a fundraising campaign for Lifebox in October. So far this has resulted in more than $57,000 raised to provide pulse oximeters in hospitals from Africa to Latin America. This campaign also inspired a $33,700 donation from the University of Florida’s Department of Anesthesia and the involvement of chapter societies from Alabama to Ohio.

The US multi-disciplinary Council on Surgical & Perioperative Safety has also provided funding for Lifebox, donating $1,000 from each of its seven member organizations.

The Canadian Anesthesiologists’ Society are raising money to provide 250 pulse oximeters for hospitals in Rwanda. This will be complemented by on-the-ground training and follow-up from Canadian anaesthesia providers.

Meanwhile the Australian Society of Anaesthetists is collecting funds to support safe surgery and anaesthesia in hospitals from Fiji to Papua New Guinea.

The New Zealand Society of Anaesthetists raised over $20,000 at its annual meeting in November, with this contribution earmarked for implementation of universal pulse oximetry and the WHO Surgical Safety Checklist across the Western Pacific region.
Governance

Lifebox is governed by a Board comprising four founding members and two elected members. The Board meets every two months and provides strategic oversight and direction to the charity.

Dr Atul Gawande  
Harvard School of Public Health  
Brigham & Women’s Hospital  
*Founding member and Chair*

Dr Angela Enright  
World Federation of Societies of Anaesthesiologists  
*Founding member*

Pauline Philip  
Luton & Dunstable Hospitals NHS Trust  
*Founding member and Chief Executive*

Dr Iain H Wilson  
Association of Anaesthetists of Great Britain and Ireland  
*Founding member*

Professor Alan Merry  
World Federation of Societies of Anaesthesiologists  
*Elected member 2011-14*

Dr Isabeau Walker  
Association of Anaesthetists of Great Britain and Ireland  
*Elected member 2011-14  
From 1 July 2011*

*Images from Memorial Christian Hospital, Bangladesh – Kaifeng Stomatological Hospital, China – Gondar Hospital, Ethiopia – Queen Elizabeth Hospital, Malawi*
Funding

Lifebox receives income from a wide variety of sources, including individuals, national anaesthesia societies and private companies. These valuable contributions make it possible for us to secure positive change for surgical patients the world over.

We are accountable to our supporters to make the best use of these resources. We spend as much money as possible on implementation of universal pulse oximetry and training, with only 5% of each $250 donation (the cost of a pulse oximeter) being allocated to overheads. We are committed to managing our funds responsibly and to keeping administrative costs as low as possible.

We have also been extremely fortunate in receiving extensive pro bono support from the following organizations during 2011:

22 design [www.22design.co.uk]
LehmanMillet [www.lminc.com]
HealthStar PR [www.healthstarpr.com]
Field Fisher Waterhouse [www.ffw.com]
McDermott Will & Emery [www.mwe.com]

Images from Smile Train partner facility, Haiti – Lifebox neonatal probe – Lifebox training workshop attendee, Uganda – Mulago Hospital, Uganda
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Registered as a charity in England & Wales (1143018)

Companies House registration no 7612518

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