OUR VISION

NO CHILD SHOULD DIE OF DIABETES

OUR MISSION

Life for a Child supports the provision of the best possible healthcare, given local circumstances, to young people with diabetes in developing countries, through the strengthening of paediatric diabetes services in these countries.
**FOREWORD**

The latest estimates for the global diabetes epidemic from the International Diabetes Federation (IDF) paint a grim picture: over 387 million people are estimated to be currently living with diabetes and if current trends continue more than 590 million will be affected by the disease within a generation. The poor are hit hardest, with 4 out of 5 people with diabetes living in low- and middle-income countries. Children and youth are among the most vulnerable. Many do not have access to the diabetes medicines, supplies, technologies and education required to effectively manage the disease in order to live a full life, free of severe and disabling complications.

Since 2000, the IDF Life for a Child programme (LFAC) has been supporting the provision of the best possible healthcare, given local circumstances, to all young people with diabetes in developing countries, through the strengthening of paediatric services in these countries. LFAC started in three countries in the Western Pacific. Fourteen years later, it has expanded considerably and is currently helping over 17,000 children in 47 countries worldwide.

2014 was another important year of growth for LFAC, with the number of children supported increasing by 24% and five new countries joining the programme.

Over the years the focus of LFAC has extended beyond keeping children and young adults alive to improving clinical outcomes and quality of life. LFAC has developed wide-ranging initiatives in patient and family education, health professional training, mentoring and relevant clinical research. In this regard, 2014 was a milestone year with a record 17 site visits conducted, strengthening professional connections between diabetes centres in developed and developing countries and enhancing knowledge-sharing that positively impacts on health outcomes for children with diabetes.

LFAC also expanded its collaboration with partner countries and institutions to conduct and publish research to better understand the patterns of diabetes in different countries. Information that is vital for teaching, training, health planning and advocacy.

LFAC is extremely grateful for the support of partners and major contributors, other supporters and the growing base of individual donors, that have made the continued expansion of the programme possible. We look forward to seeing LFAC grow further, reach deeper and help ensure children and youth achieve the healthy future they so rightfully deserve.

**Sir Michael Hirst**  
President 2013-15  
International Diabetes Federation
HIGHLIGHTS 2014

• Five countries joined the LFAC in 2014 - Cambodia, Malawi, North Korea, Syria and St Lucia.

• Numbers of supported children and youth grew from 13,778 to 17,071 during the year.

• Research initiatives – Various studies are underway looking at the types and ages of onset of diabetes that occur in various countries, and also on insulin storage techniques.

• Expansion of the Life for a Child online education resources to include three new languages - Marathi, Amharic, and Bangla.

• A record 17 site/mentoring visits conducted during the year.

• The Spare a Rose Save a Child campaign raised $27,265.17 for LFAC around Valentine’s Day.
Countries supported by the Life for a Child Programme

Countries joining the Programme in 2014
FIGURE 2
NUMBER OF COUNTRIES AND NUMBER OF CHILDREN/YOUTH ASSISTED BY LFAC, 2001-2014
## Table 1: Countries in which LFAC Centers Operate and the Number of Children Currently Receiving Assistance

<table>
<thead>
<tr>
<th>Country</th>
<th>Sites</th>
<th>NR of Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>Whole country</td>
<td>153</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>Whole country</td>
<td>1751</td>
</tr>
<tr>
<td>Bolivia</td>
<td>Whole country</td>
<td>160</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Ouagadougou and surrounds</td>
<td>30</td>
</tr>
<tr>
<td>Burundi</td>
<td>Bujumbura and surrounds</td>
<td>200</td>
</tr>
<tr>
<td>Cambodia</td>
<td>Siem Reap</td>
<td>4</td>
</tr>
<tr>
<td>Cayman Islands</td>
<td>Whole country</td>
<td>20</td>
</tr>
<tr>
<td>Democratic Republic of Congo</td>
<td>Kinshasa and some regional cities, and Goma</td>
<td>283</td>
</tr>
<tr>
<td>Dominican Republic</td>
<td>Santo Domingo and surrounds</td>
<td>100</td>
</tr>
<tr>
<td>Ecuador</td>
<td>Guayaquil, Quito Cuenca and surrounds</td>
<td>190</td>
</tr>
<tr>
<td>Eritrea</td>
<td>Whole country</td>
<td>800</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>Whole country</td>
<td>2597</td>
</tr>
<tr>
<td>Fiji</td>
<td>Whole country</td>
<td>20</td>
</tr>
<tr>
<td>Ghana</td>
<td>Accra, Kumasi, other centres</td>
<td>690</td>
</tr>
<tr>
<td>Guatemala</td>
<td>Guatemala City and surrounds</td>
<td>138</td>
</tr>
<tr>
<td>Guyana</td>
<td>Whole country</td>
<td>30</td>
</tr>
<tr>
<td>Haiti</td>
<td>Port-au-Prince and other areas</td>
<td>147</td>
</tr>
<tr>
<td>India</td>
<td>Gujurat, Haridwar, Nagpur, Vellore, Belgaum, Bangalore, Kota, Pune, Indore</td>
<td>1425</td>
</tr>
<tr>
<td>Iraq (Kurdistan)</td>
<td>Erbil</td>
<td>200</td>
</tr>
<tr>
<td>Jamaica</td>
<td>Whole country</td>
<td>300</td>
</tr>
<tr>
<td>Kenya</td>
<td>Nairobi</td>
<td>200</td>
</tr>
<tr>
<td>Liberia</td>
<td>Ganta and Monrovia</td>
<td>50</td>
</tr>
<tr>
<td>Malawi</td>
<td>Blantyre, Llongwe, Mzuzu and surrounds</td>
<td>126</td>
</tr>
<tr>
<td>Maldives</td>
<td>Whole country</td>
<td>70</td>
</tr>
<tr>
<td>Mali</td>
<td>Whole country</td>
<td>300</td>
</tr>
<tr>
<td>Mauritania</td>
<td>Whole country</td>
<td>50</td>
</tr>
<tr>
<td>Mexico</td>
<td>Guadalajara, Nueva Leon, Merida, Monterrey, Cancun</td>
<td>251</td>
</tr>
<tr>
<td>Nepal</td>
<td>Kathmandu, Patan, Dharan and Butwal and surrounds</td>
<td>99</td>
</tr>
<tr>
<td>Nigeria</td>
<td>Various cities and surrounds</td>
<td>120</td>
</tr>
<tr>
<td>North Korea</td>
<td>Pyongyang and surrounds</td>
<td>126</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Karachi and Sindh Province</td>
<td>2172</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>Whole country</td>
<td>1</td>
</tr>
<tr>
<td>Philippines</td>
<td>Manila and some other regions</td>
<td>70</td>
</tr>
<tr>
<td>Republic of Congo</td>
<td>Brazzaville and Pointe Noire</td>
<td>130</td>
</tr>
<tr>
<td>Rwanda</td>
<td>Whole country</td>
<td>800</td>
</tr>
<tr>
<td>Solomon Islands</td>
<td>Whole country</td>
<td>1</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Colombo and surrounds</td>
<td>200</td>
</tr>
<tr>
<td>St Lucia</td>
<td>Whole country</td>
<td>60</td>
</tr>
<tr>
<td>Sudan</td>
<td>Khartoum, Gezira, and some other areas</td>
<td>650</td>
</tr>
<tr>
<td>Syria</td>
<td>Irbil region</td>
<td>400</td>
</tr>
<tr>
<td>Tajikistan</td>
<td>Whole country</td>
<td>350</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Whole country</td>
<td>661</td>
</tr>
<tr>
<td>Togo</td>
<td>Whole country</td>
<td>70</td>
</tr>
<tr>
<td>Uganda</td>
<td>Kagando and surrounds</td>
<td>30</td>
</tr>
<tr>
<td>Uzbekistan</td>
<td>Various provinces</td>
<td>400</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Ho Chi Minh City and surrounds, Hue</td>
<td>46</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>Whole country</td>
<td>400</td>
</tr>
</tbody>
</table>

**Total:** 17,071
USE OF FUNDS

FIGURE 3
USE OF THE DIRECT FUNDS SENT TO LFAC PROGRAMME CENTRES IN 2014 (IN USD AND % OF TOTAL)

- STRIPS & METERS: $406,237 (40.9%)
- SYRINGES: $9,328 (0.9%)
- CAMPS (DIABETES): $9,256.41 (0.9%)
- OTHER OVERSEAS SUPPORT: $71,319 (7.2%)
- TRAINING AND ASSESSMENTS: $28,697.84 (2.9%)
- RESEARCH: $46,937.23 (4.7%)
- DIABETES EDUCATION: $51,320.23 (5.2%)
- HBA1C: $211,940.56 (21.4%)
- INSULIN: $157,542.18 (15.9%)
FIGURE 4
AMOUNT OF IN-KIND DONATIONS IN 2014

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insulin</td>
<td>$3,156,230</td>
</tr>
<tr>
<td>Meters, Strips, and Lancets</td>
<td>$2,986,566</td>
</tr>
<tr>
<td>Syringes</td>
<td>$236,600</td>
</tr>
<tr>
<td>Education</td>
<td>$15,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$6,394,396</strong></td>
</tr>
</tbody>
</table>
COUNTRY PROFILE:

Rwanda: 10 years of outstanding progress

Desperate times for children with diabetes

Life for a Child commenced support in Rwanda in 2004, after receiving a request from the Rwandan Diabetes Association (RDA). At the time, the country was still reeling from the dreadful civil war and genocide of 1994. Many health professionals had fled the country or been killed, and the economy was in poor shape. Only around 30 children and adolescents with diabetes were known in the country. Provision of insulin by the government was very limited, and almost no child was having more than monthly blood glucose tests. Not uncommonly, when a diagnosis of diabetes was made, the child (often an orphan in the first place) was abandoned at the hospital.

Remarkable changes

LFAC commenced support with insulin, and later with syringes, HbA1c, meters and strips, and educational materials. Numbers of known children and adolescents increased steadily as the mortality rate plummeted, and care, organised by the RDA in partnership with the Ministry of Health, spread throughout the country. Now, 11 years later, the economy is growing strongly, the land is peaceful, and the country’s health system is developing steadily, led by the very able Health Minister, Dr. Agnes Binagwaho. The RDA – Francois and Crispin Gishoma and their team - have been determined and innovative in their approach, with great results - there are now over 800 young people 25 years old or less with diabetes in the country.

The RDA conduct quarterly visits to most district hospitals - so that nearly all of the patients can be seen regularly by diabetes nurse educators. The RDA has also established a six-month resident vocational training and diabetes education course for older youth. This improves care and provides skills, setting up these young people for the future.

Strength from partnerships

One of the keys to success in Rwanda is partnership. Aside from the in-country partners, there is a coalition of other groups involved:

- The University of Pittsburgh (Prof. Trevor Orchard, Dr. Deborah Edidin (from Chicago), Sara Marshall, Laurien Sibomana and others have conducted invaluable research and training which has improved clinical care and determined incidence and prevalence.
- Team Type 1 (Phil and Biljana Southerland) are now providing all needed blood glucose meters and strips.
- Marjorie’s Fund (Dr. Jason Baker and his team) are helping with the education centre and health professional training.
- Insulin zum Leben (Heidi Schmidt-Schmiedebach) are also helping with supplies for adults, camps, and training.
Fabrice (right) was diagnosed before he was one year old. He has been cared for by the team at the RDA, and is now a healthy teenager.

Chantelle (below) is now 25. She lives in an isolated village on top of a hillside in one of the rural districts, five hours walk from the nearest health centre. She has had diabetes for 8 years. She and her mother get by through the skills she learnt at the vocational school – making scones in a simple oven, and growing vegetables.
EDUCATION ACTIVITIES

Education continues to be a focus of the IDF Life for a Child programme.

- Further languages have been added to the LFAC Education website - Marathi, and Bangla - bringing the total to 13.
- “Professor Bumblebee’s Guide to Type 1 Diabetes” has been translated into Urdu and Tajik.
- “Moseka and her Friends” comic book, originally in French and English has now been translated into Bahasa (Indonesian), and is currently being translated into Kinyarwanda and Swahili.
- The IDF Kids and Diabetes in School (KiDS) Project was launched at the International Society for Pediatric and Adolescent Diabetes Society (ISPAD) meeting in Toronto in September. A school pack with sections for parents, children and teachers on the appropriate management for children and adolescents at school was developed and has been translated into eight languages. It is hoped that many countries will be able to adapt the pack to suit local needs and cultures. LFAC contributed towards its development and the pack can be downloaded from the IDF website.

POCKETBOOK GUIDELINES

The “Pocketbook for the Management of Diabetes in Childhood and Adolescence in Under-Resourced Countries” was launched in December 2013. It has since been translated into Azeri. The pocketbook was distributed to all countries supported by LFAC in early 2014 and can be downloaded from the IDF website.
DKA AWARENESS CAMPAIGN

The Diabetic Ketoacidosis (DKA) awareness campaign continued throughout 2014 with seven additional countries becoming involved in the campaign and posters developed in the following languages:

- Bolivia (Spanish)
- Mexico (Spanish)
- Ecuador (Spanish)
- Ghana (Twi/Dagbanli)
- Mauritania (Arabic/French)
- Tajikistan (Tajik)
- Zimbabwe (English/Shona/Ndebele)

The posters are available for free download from the LFAC website.

CAMPS

Following the IDF World Diabetes Congress Melbourne 2013, LFAC commenced preparing simple guidelines with the American Diabetes and Education Association (DECA) to assist less-resourced countries to conduct day activities and/or camps. Many LFAC-supported countries have held very successful camps in the past year including:

- Haiti
- Maldives
- Ecuador
- Mexico
- Fiji
- Jamaica
- Tanzania
- Rwanda
- Sri Lanka

Angie Middlehurst visited Kingston, Jamaica in June 2014 and attended a diabetes camp. While in Jamaica, Angie visited two hospitals in outlying areas, Spanish Town and May Pen Hospitals, both managing children and adolescents supported by LFAC. The camp was conducted by a local child psychologist in conjunction with Diabetes Association of Jamaica. The children, with and without diabetes, all mixed well and everyone joined in the diabetes education sessions.
LFAC/ISPAD WORKSHOPS

LFAC and ISPAD developed guidelines for the conduct of training workshops for health professionals in less-resourced countries.

Each comprehensive programme covers all aspects of the clinical management of type 1 diabetes, relating and adapting discussion to local needs.

In Zimbabwe, The Zimbabwe Diabetic Association hosted their first LFAC/ISPAD workshop in Harare on 24-25 July.

The faculty team was sponsored by LFAC and led by recognised experts in paediatric diabetes:

- Dr Kuben Pillay, Endocrinologist, Paediatrician, Westville Hospital, Durban, South Africa
- Dr Kiran Parbhoo, Paediatric Endocrinologist, Chris Hani Baragwanath Hospital, Soweto, South Africa
- Mary Mujomba, Paediatric Specialist Nurse, Kenyatta National Hospital, Nairobi, Kenya

Thirty two delegates attended the workshop from centres in Zimbabwe where children and young people are supported by LFAC. All aspects of diabetes management were included in the programme, with a practical interactive approach an integral part of the workshop.

The delegates were welcomed by Dr John Mangwiroyo, and Dr Madzikawa officially opened proceedings.

The workshop was instrumental in bringing together local health professionals to learn more about diabetes management but also discuss the requirements to improve the care of children and young people with diabetes in Zimbabwe. It was recognised that there are limitations and a lack of knowledge in early and correct diagnosis and that further training and support is needed.
SITE VISITS AND MENTORING

The following site visits were carried out in 2014:

- Bangalore, India: Adam Lamendola, Diabetes Educator, Monash Children’s Hospital, Melbourne, Australia
- Castries, St Lucia: Dr Jadranka Popovic, Children’s Hospital, Pittsburgh, USA
- Blantyre, Lilongwe & Mzuzu, Malawi: Dr Antje Herbst, Klinikum Leverkusen, Pediatric Diabetology, Bonn, Germany
- Honiara, Solomon Islands: Associate Professor Bruce King, John Hunter Children’s Hospital, Newcastle, Australia
- Kingston, Jamaica: Angie Middlehurst, Sydney, Australia
- Manila, Philippines: Robyn Short-Hobbs, Sydney, Australia
- Kigali, Rwanda: Dr Graham Ogle, Sydney, Australia
- Brazzaville/Pointe-Noire, Republic of Congo: Dr Graham Ogle, Sydney, Australia
- Bujumbura, Burundi: Dr Patrick Garandeau
- Sucre and Potosi, Bolivia: Dr Stuart Brink, Boston USA
- Georgetown, Guyana: Dr Audrey Austin, North Carolina
- Nairobi, Kenya: Dr Graham Ogle, Sydney, Australia
- Addis Ababa, Ethiopia: Dr Graham Ogle, Sydney, Australia
- Dar es Salaam, Tanzania: Dr Graham Ogle, Sydney, Australia
- Belgaum, India: Dan Howarth, Auckland, New Zealand
- Guatemala City, Guatemala: Dr Hans-Jacob Bangstad, Norway and Dr Erick Richmond, Costa Rica
- Guayaquil, Ecuador: Dr Henry Rodriguez, Tampa, Florida

Volunteers also served in Tanzania (Carla Cox) and Sri Lanka (Kathryn Nagel)
EPIEMIOLOGY

It is critical to understand the types of diabetes that occur in different countries, the ages that it is diagnosed, and the numbers of new cases. This information is important for teaching and training, health planning and advocacy, and making sure cases do not die misdiagnosed as another disease.

Rates of type 1 diabetes vary 100-fold around the world, but the reasons for this are only partly understood. Furthermore, in less-resourced countries almost all diabetes cases are diagnosed as type 1, but other forms of diabetes do occur, which often require different treatments.

LFAC is working with our country partners and institutions in other countries to understand the patterns of diabetes in many countries.

In Rwanda, a series of papers has been published over the last couple of years by the University of Pittsburgh, LFAC and the Rwandan Diabetes Association.

A paper was also published on incidence and prevalence in Fiji, showing the rates were much higher in Fijians of Indian background compared to Native Fijians.

A six-country study looking at the types of diabetes occurring in countries has been commenced in Azerbaijan, Bangladesh, Haiti, Mali, Pakistan and Sudan. This study also involves the Children’s Hospital Oakland Research Institute (who are conducting the DNA studies) and the University of Florida.

SAFE INSULIN STORAGE – THE "CLAY POT OLYMPICS"

Insulin loses its efficacy quickly when stored at high temperatures, but many families around the world do not have a refrigerator. Various traditional evaporative cooling devices are used – mainly clay-pots filled with water. However it is not known whether these devices are effective.

Therefore LFAC conducted a “Clay Pot Olympics”. The study was done at the Sudan Childhood Diabetes Centre in Khartoum.

Dr. Michael Sørensen, a volunteer from Copenhagen, spent over a week there setting up and running the study. 14 devices from seven countries were studied.

Preliminary results showed that all devices did reduce storage temperature, with some considerably more effective than others. Further analysis is proceeding and the paper will be submitted for publication in 2015.
PARTNERS AND MAJOR CONTRIBUTORS

DIABETES NSW (DNSW)

In 2014, Australian Diabetes Council changed its name to Diabetes NSW (DNSW). DNSW continues its work as a founding partner of the Programme by hosting all LFAC staff, providing financial, marketing and fundraising expertise, contributing to oversight of Programme activities, and providing access to diabetes education materials. LFAC welcomed DNSW's new CEO Mr Sturt Eastwood, who serves as Co-chair on the programme’s Steering Committee.

THE LEONA M. AND HARRY B. HELMSLEY CHARITABLE TRUST

A private United States Trust, Helmsley selected LFAC as beneficiary of a substantial two-year grant in 2011. This substantial donation facilitated the maintenance and further expansion of the program in 2013, with an increase in education, training and research activities, and contribution to the expansion of blood glucose self-monitoring. Helmsley extended its valuable support from September 2013 to December 14.

FONDATION DE L’ORANGERIE FOR INDIVIDUAL PHILANTHROPY

Fondation de l’Orangerie supported LFAC for 4 years through to May 2014. LFAC was very grateful for the Fondation’s support over this period. As with the Helmsley Trust donation, the Fondation’s generous contribution has underpinned the Programme’s work, assisting progress in the introduction and training of blood glucose self-monitoring for thousands of children and youth.

INTERNATIONAL SOCIETY FOR PAEDIATRIC AND ADOLESCENT DIABETES (ISPAD)

ISPAD’s global membership network facilitates the Programme clinically and professionally, collaborating on the development of guidelines, training workshops for health professionals, mentoring, site visits and advocacy.
**INSULIN FOR LIFE (IFL)**

IFL’s longstanding partnership with LFAC operates on a number of levels: from the provision of insulin to Ecuador and the Maldives, to referral of enquiries and advice. LFAC also directs donated surplus diabetes supplies from the general public and DNSW to IFL offices in Australia and the United States.

**LIFESCAN**

An ongoing Programme supporter, LifeScan continued their commitment to provide blood glucose monitoring equipment to LFAC, and in 2014 a total of 488 blood glucose meters and 1,246,200 test strips were delivered to LFAC partner centres in seven countries across Central and South America, South Asia, and sub-Saharan Africa. The supplies allow the young recipients to play an active role in managing their diabetes and nurturing their health.

**LILLY DIABETES & LILLY FOUNDATION**

Lilly continues to provide insulin to almost all the countries supported by LFAC that cannot fully cover their own supply. Lilly's backing is vital to LFAC’s success, and the thousands of diabetes-affected families unable to afford insulin for their children. In 2014, 225,445 vials were distributed to 13,252 children across 30 countries.

**BECTON DICKINSON**

Becton Dickinson continued their valuable support by providing insulin syringes/needles. These syringes are much appreciated, not only because they save families having to buy them, but they are much less painful to use than ordinary syringes. In 2014, BD supplied 1,183,000 syringes/needle to 5,953 children in 21 countries.

**HOPE WORLDWIDE**

As another founding partner, HOPE worldwide provided assistance by filtering tax-deductible donations for the Programme in the USA and UK. Affiliate organisations provide in-country oversight in Fiji, Papua New Guinea, and the Philippines.
OTHER SUPPORTERS

NON-GOVERNMENT ORGANISATIONS

- Associazione Medici Diabetologi (AMD)
- Barbara Davis Center for Childhood Diabetes (BDC)
- Caring & Living as Neighbours (CLAN)
- Crumlin Diabetes Centre Parents Group
- Diabeter-Center for Pediatric and Adolescent Diabetes Care and Research, the Netherlands
- Diabetes Education and Camping Association (DECA)
- Diabetes Hands Foundation
- Diabetes UK
- Diasend
- Direct Relief International
- Dutch Diabetes Association (Diabetesvereniging Nederland)
- Foundation of European Nurses in Diabetes (FEND)
- Luxembourg Diabetes Association (Association Luxembourgeoise de Diabète)
- Macquarie University
- Marjorie’s Fund
- Partnering for Diabetes Change (US online communities)
- Rotary International
- Stichting Sugarfriends
- T1D Exchange
- University of Pittsburgh
- Young Diabetes Sweden (Ung Diabetes)

INDUSTRY

- ACON
- Boehringer Ingelheim
- Diasend
- Gattorna Alignment
- Health Nuts Media
- Landmark Group
- Ranbaxy Laboratories
- Sanofi Diabetes
- Timesulin
- UTi Pharma

SPORTS

- Team Type 1

FOUNDATIONS

- Charles Evans Hughes Memorial Foundation

INDIVIDUALS

- Mr. Marco Drago
- Lorna and Brian Mellor
- Numerous individual donors, advocates, and experts
NO CHILD
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