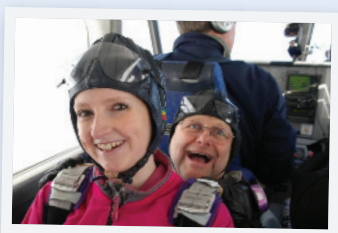




Box 500, 44-46 Morningside Road
Edinburgh EH10 4BF
Registered Charity Number: SC038205
olivia@500miles.co.uk
www.500miles.co.uk

In brief...



Rhona Campbell raised a terrific £310 by doing a tandem skydive, on 27th April.



Anthony and Valerie West raised £2,000 at their Golden Wedding anniversary celebration.



Gryffe Valley Rotary Club hosted a garden party (for the 3rd year) - raising £1,500.

More fundraising stories on pages 2-4

Dear friends of 500 miles

I'm really sorry that it's been over 16 months since our last newsletter. Let me tell you why that is - and try to make up for it!

Running 500 miles has become a big job and while things are more on track now, it's still difficult to balance the time I spend working on the projects, administration, fundraising and communication with you - and to find an effective way to use help in the things that I don't have to do myself.

In the last couple of months I have prioritised the charity's new website over this newsletter so that I would be able to direct you to a finished article. I am delighted that I can now just about do that! Please have a look at what we've done at the usual address - www.500miles.co.uk. I'm saying "just about" because I'm sure you'll spot that there's more to come. I hope you enjoy our new look!



As you'll see from the projects update, a lot has been happening on the ground in Africa. In Malawi we opened a brand new 500 miles Centre in Mzuzu in November and business is still growing at our first Centre in Lilongwe where we have a new manager. Up until now it's been difficult to know what to say about the projects in Zambia and Zanzibar as both became rather uncertain during the last quarter of 2012. However, our training programme has been in full swing and we are currently sponsoring 8 students from Malawi, Zambia and Zanzibar at college in Tanzania.

There have been many highlights over the last 16 months. In April 2012 I spoke at the annual conference of the Inner Wheel Clubs of Great Britain and Ireland which, among them, have gone on to donate a magnificent £21,780 to 500 miles. In April 2013 I spoke

to around 2,500 Rotarians in Harrogate at the annual conference of Rotary International Britain and Ireland on its theme for the year, "Peace through service". Finally, but no less importantly, through the Scotland Malawi Partnership of which 500 miles is proud to be a member, I was very lucky and honoured to meet Joyce Banda, the President of Malawi, during her visit to Scotland in March 2013 (pictured below, with Charlie Ager of the SMP).



Thankfully your financial and fundraising support has remained constant! I'm extremely grateful to everyone who has donated so generously to 500 miles over the months. Your fundraising initiatives have, as ever, been original, challenging and impressive. As this newsletter covers such a long period, I just don't have space to mention them all here but every one is covered in the Archive section of the website under Fundraising. I'm picking out some highlights below.

500 miles is ultimately all about the people we're trying to help and so, although the website has some superb patient stories (some with videos), I couldn't resist including some here too.

I look forward to being in touch with you again in November!

Olivia Giles



Peter is a marathon man at 66

Peter McGavigan, a retired GP, ran the London Virgin Marathon for 500 miles on Sunday 21st April raising a wonderful **£1,800** - 80% more than his original target. Peter sustained quite a serious knee injury about three weeks before the race forcing him to miss some of his

training schedule but he went ahead to take part and despite severe cramps three miles from the end, in his words, he "walked, limped and grimaced" his way to the finish line - not that you would know it from this triumphant photo! We are impressed!

Sing song for spring time

Inspired by **Marion Marshall** and led by **Margaret Grant**, on Sunday 21st April a singing audience of over 300 people joined a 100-strong gathered choir at St Cuthbert's Church in Edinburgh to sing 16 "old songs" - brightly and beautifully. They raised their voices, raised the rafters - and raised a fantastic **£5,000** for 500 miles! This was largely enabled by the generous sponsorship of William Purves Funeral Directors.

OLD SONGS BRIGHT AND BEAUTIFUL
Sing-along Spring Concert
 Old favourite hymns, choruses and childhood songs

Tickets available from The Hub
 Adults - £10 Concessions - £8 Children - £5
 (www.hubtickets.co.uk or 0131 473 2000)

St Cuthbert's Church Sunday 21st April 2013 7pm-9.15pm
 Sponsored by William Purves Funeral Directors Ltd.

Supporting Scottish charity "500 miles"
 Registered Number: SC036295

More information available at www.500miles.co.uk and www.st-cuthberts.net

St Cuthbert's organist, Jeremy Cull, played the organ throughout with trumpet accompaniment from Isaac Tolley. Solo soprano opera singer, Janet de Vigne sang Holy City and Panis Angelicus. The presenter, Bill Copeland brought his

patter from Glasgow and kept us all laughing between songs all the way to Thine Be The Glory.

500 miles would like to thank everyone for taking part and for their generosity.

"Dancing Buffs" walk Hadrian's Wall

Christina and David France, keen dancers and long-time supporters of 500 miles, used their Easter holidays to raise funds for us by walking Hadrian's Wall to raise funds for us. What's remarkable about this is that Christina, a physics teacher at Gracemount High School, has major artificial parts in both legs and suffers from an underactive thyroid and asthma - and David, who retires from work at the Inland Revenue this month, has sleep apnea, Ménière's disease and

an internal heart monitor. Walking Hadrian's Wall was a major challenge for both of them but clearly they try not to let these disabilities get in the way of enjoying life. It's heartening that they want to help others have the same chance of enjoying mobility. It's no wonder that their colleagues, friends and family have supported their fundraising so enthusiastically! They are very close to raising their target of a marvellous **£1,300** with donations still coming in.



Christina and David enjoy a well-deserved refreshment after their walk.

Cupcake anyone?

Completely on their own initiative and at just 10 years old, **Rachel Hughes and Millie Goldrick** raised **£125** for 500 miles during their summer holidays by making and selling cupcakes to their friends and neighbours. The delicious cupcakes were priced at 50p each - but that was a bargain by all accounts! What a great combination of entrepreneurship, talent salesmanship - and kindness!



Olivia with the budding bakers



Lenten support from St Albert's Chaplaincy

Neil Farrell introduced 500 miles to Father Dermot Morrin of St Albert's Catholic Chaplaincy at Edinburgh University before Christmas. With little prompting, St Albert's and its members went on to raise over **£3,600** for 500 miles during and around Lent in a variety of novel ways. It all started on Shrove Tuesday with a lemon pancake bake and sale on a huge scale. Other activities included Kevin Rennie's sponsored haircut and Des Nolan's selling of bush clippings. The imaginative and lucrative activities culminated in an African evening which was coordinated and delivered largely by Jane Fletcher whose imaginative food, table decorations, slide show and collages clearly inspired people to be very generous. Just as well this was a few weeks after Lent!



Top: Kevin's new look. Right: Flipping brilliant pancake making!

Fitness Chicks at Fairmilehead

Encouraged by class member **Jean Terry** (who makes greetings cards for 500 miles), Sarah Munro, aerobics instructor at Fairmilehead Parish Church, raised **£230** for 500 miles by charging extra for her class on 14th September and donating all of her own profit. Of course fancy dress was essential! Lennie's almond slices were well deserved after all had marched off some calories to "500 miles".

Getting fit, fancy-dress style



The P5's showing the way to go!

Watson's P5's walk the walk

Teacher **Mr MacDonell** invited Olivia to come and talk to Primary 5 at George Watson's College about 500 miles at the start of the new school year. There were some excellent questions as the pupils tried to understand how they could help people with disabilities in Africa. Then in October 2012 the children and staff threw themselves into a sponsored walk in which the 140 participants walked just over 3.5 miles each round the school grounds – making a perfect 500 miles. Spirits remained high all the way round the course because the sun shone and each P5 class had written new words for one verse

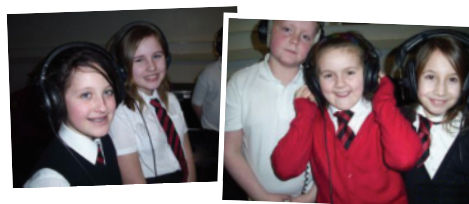
of The Proclaimers' "500 miles song" and they sang as they walked. It all ended in a big cake sale.

Very generous sponsorship, plus the cake bake sale proceeds, amounted to an astounding £3,700. But that wasn't all. In February 2013, 500 miles received another unexpected donation of £2,000.91 from Watson's P5s which was raised from various activities including the Christmas concert and carol service, the Christmas fair and the toy fair, meaning that this one year group raised a total of **£5,700.91** for 500 miles!

Newarthill Primary sings

Newarthill Primary School has raised **£1,050** for 500 miles! We were first introduced to Newarthill Primary School when headteacher, Mrs Kennedy, told us that it had chosen 500 miles as the charity to benefit from its contribution to North Lanarkshire's "A Celebration of Youth Music" 2011/2012. Only 10 primary schools selected to participate in this event in which the Primary 7 classes wrote and recorded the words of a song around the theme of social responsibility and then the school choirs performed their P7s' song in Motherwell Civic Centre and in the Glasgow Concert Hall in March 2012.

Newarthill Primary's song was called "They all give us something" and the sales of the CD raised a fabulous £500 for 500 miles. From Christmas to Easter 2013, this small school has gone on to raise another £550 through a Christmas dress down day, a Valentine's raffle drawn at the spring disco, a sale of Taylor Ferguson's gran's cakes, a raffle of an Easter basket specially prepared by P6 and rounded off with an end of term African afternoon to celebrate their "Amazing Africa" topics. Thank you all!



Above: the Newarthill stars in the studio. Right: Olivia meets the school.



Laura
and her
calendar



Not many school pupils contemplating their Highers would add to their load by voluntarily fundraising during the winter term, all

Laura's calendar makes it a great year for 500 miles

on their own initiative – but that's what **Laura Watson** did when she decided to use her talent in flower photography to design and produce an illustrated calendar for 2013 for sale to friends and family for 500 miles, her entrepreneurial drive to secure sponsorship for each page from local businesses and her charm to make many sales. This all resulted in a net profit of **£1,110** which she donated to 500 miles

Laura's motivation comes from the fact that she was born with double talipes, has

undergone a lot of surgery and wears orthoses to support her feet and ankles. She knows that these devices are as vital for people with disabilities in Africa as they are for her.

The empathy, enterprise and initiative demonstrated by this remarkable young woman inspired a few private donations and her school, **St Columba's School** in Kilmacolm, to donate the proceeds from its Christmas carol concert - another **£621** - to 500 miles.

John Carney's north face challenge

John Carney works for a medical research company based in Geneva called **Shire**. Shire's mission statement is "to be as brave as the people they help". John first contacted us in March 2012 to suggest how he wanted to apply that philosophy to do some fundraising for 500 miles – a climb of the north face of one of the more challenging peaks in Chamonix in the Alps.

Bad weather and bad luck mean that the actual climb could not take place until

November when he and his climbing companions scaled the Aiguille des Pelerins via the Carrington-Rouse route. John put as much effort into his fundraising as the sponsored climb and raised £805.30 - which was very kindly "matched" by Shire with a donation of 1,000 CHF – making a super total of **£1,485**. John, looking at these terrifying pictures, you are indeed as brave as our patients that you've helped!



John braving the Aiguille des Pelerins

news

Grant from PORT-ER

In September 2012 500 miles applied to PORT-ER, a small UK based charity, for a contribution to the costs of sending Patrick Govati (pictured, right) on a short intensive course in clinical methods for fitting ankle/foot orthoses and knee/ankle/foot orthoses run by the Special Fund for the Disabled (SFD) of the International Committee of the Red Cross. We are delighted and grateful to report that just before Christmas 2012, PORT-ER awarded a grant of £1,250 to 500 miles and that Patrick is signed up for the course which will take place at SFD's new headquarters in Dar Es Salaam in October-November 2013.

With 19 years in the profession behind him, Patrick is the most experienced Malawian orthopaedic technician working at the 500

miles Centre at Kamuzu Central Hospital in Lilongwe. He has dedicated his life to helping people with disabilities and is himself directly responsible for treating over 250 patients each year. Patrick has a one-year certificate in prosthetics but no formal training in orthotics. As a senior member of the team already, his increased knowledge and skills in orthotics will improve treatment of his patients but will also be passed on to the junior members of the team.

The vision of PORT-ER (www.port-er.com) is to "bring about better patient care for people with mobility challenges through



mobility Matters
a PORT-ER initiative

national and international development." 500 miles is very pleased to be working with PORT-ER and we hope we can find other ways to collaborate.

Malawi: Lilongwe

In 2012, the 500 miles Centre at Kamuzu Central Hospital (KCH) in Lilongwe delivered 991 prosthetic and orthotic devices and saw 1,030 patients. That is an impressive increase from 827 devices and 862 patients in 2011. We hope that our capacity and output will continue to grow although we will soon reach the optimum number of staff for the size of our premises.

Our outreach programme for central region is now well developed. We work with a number of partners (detailed in the website) in trying to reach the whole population of the region but we're always looking for different avenues to explore with new partners. For example, in the first quarter of 2013 we were very happy to treat the first cohort of 35 patients from the UN refugee camp at Dzaleka which is home to refugees from Rwanda, Burundi, DRC, Somalia and Ethiopia, some of them third generation refugees. In this initiative we've been working with (1) the United Nations High Commissioner for Refugees which organised the triaging of potential patients at the camp and the logistics of bringing them to the 500 miles Centre (2) the Malawian Ministry of Health which has responsibility for the health care of the refugees and (3) There is Hope Malawi, a wonderful NGO which supports refugees and other vulnerable people living in the camp and which is paying for the devices.



Left: Peter in the workshop checking a prosthetic.
Above: Mark taking a cast for an orthotic device.

In October 2012 we had a change of manager. We said goodbye to Joanna Cole-Hamilton, a Scottish prosthetist who had been with us since January 2011 and who led the Centre through a period of rapid growth and significantly developed our outreach programme. Thank you Joanna!

And we said hello to Evelyne Huizinga from the Netherlands who had been working as a physiotherapist in Malawi for three and a half years before we met her. Evelyne first heard about 500 miles in September 2009 when an American woman asked her if she could recommend some physio exercises for a Malawian girl called Olivetti Liberito who had just been fitted with two prostheses by 500 miles. You can read about Olivetti in the patient stories section. Evelyne knew that she needed to see the girl before recommending exercises but it was too far for Olivetti and her family to travel to Lilongwe and so Evelyne went to Chimteka, the village in Mchinji District, where Olivetti lives with her family. As well as Olivetti, there were 30 other



Say hello to Evelyne!



people with disabilities waiting for Evelyne so she decided to go back the next weekend to follow up. On that visit there were yet more people needing her help and hoping to see her. Evelyne ended up going to Chimteka almost every Saturday and a year later she and a number of others with complimentary skills for rehabilitation and education services formed a Malawian registered NGO called DIPD (Development and Integration of People with Disabilities project). DIPD's aim is "to promote an environment that cares for, supports and protects people with disabilities and allows them to grow and develop to their full potential, physically, psychologically, materially, socially, morally, spiritually and legally".

One of the things DIPD does is provide rehabilitation services and so Evelyne regularly referred children and adults with a disability to 500 miles because she felt they were well assisted by our prosthetics and orthotics. Evelyne still volunteers for DIPD at the weekend but now working with us as her fulltime job, Evelyne says "My new job gives me scope to address more needs of people with disabilities. Although it's a challenge to manage a P&O centre with no background in P&O, it's wonderful to work in a team delivering both P&O and physiotherapy services and to see people smiling when they receive a device, which assists them to walk or function". You can read about another mutual 500 miles/DIPD patient, Alick Chimtanzi, in the patient stories section.

Although Evelyne misses her friends and family (and chocolate!) she says that she loves her job and particularly seeing people who have crawled into the Centre walking out on their way home. She is also picking up the local language which came in useful when she was told "tsoka" (a rude way of saying "go away") by a little child who thought she was making him do many exercises!



Evelyne doing gait training with some young patients.



Malawi: MZUZU

The second 500 miles Prosthetic and Orthotic Centre in Malawi opened in Mzuzu on 26th November 2012. It is set in the grounds of Mzuzu Central Hospital (MCH), the main tertiary care hospital for northern region. All of the buildings at MCH are uniform and so we had to design our 250sqm clinic and workshop and 100sqm adjoining hostel to match. The demographics of northern region and the limited bed-space at MCH mean that we need a hostel to accommodate travelling patients who will stay with us for a approximately a week at a time whilst their devices are being made and fitted.



Above-left: The clinic. Above: The hostel, for travelling patients. Left: The gait training area, where patients learn to walk again.

The last detail was the gait training area which was finished last week - and it all looks fantastic! We have many people to thank for making this new Centre possible. Andreas Huck, a prosthetist/orthotist and experienced

“space planner” working at Sophies Minde Ortopedi in Norway, designed the layout of the buildings. We depended on an entirely Malawian professional team, led by Design Studio Architects and we used a Malawian contractor, Western Construction - but back in Scotland we enjoyed the advice of solicitors, Dundas & Wilson, builder, Donny MacKinnon and quantity surveyor David Allan. The Maitri Trust generously funded the construction and some of the equipment. Malawian Rotarian, Allen Kumwenda monitored progress locally. Thanks are also due to the director and staff of MCH who have welcomed 500 miles warmly.

As in Lilongwe, the trained Malawian staff members are employed by the Malawian Ministry of Health. We're delighted to have the services



Malawian staff members: Tiwonge Kaponda (above) and Dumisani Ngulube (right).



of Dumisani Ngulube and Tiwonge Kaponda whose degree and diploma qualifications respectively were sponsored by 500 miles. 500 miles has also engaged the services of an assistant technician, Eviness Nkumba.

And now I'd like to introduce you to Samuel Walker, our manager in Mzuzu. Sam, a physiotherapist from Nottingham, arrived in Malawi in July 2012 expecting a month's induction in Lilongwe before opening the doors at MCH. Instead, when he arrived in Mzuzu in early August he found himself managing the final stages of the building project and the handover to 500 miles, all of which - and the start up of our service - he handled admirably and with a smile. We'll tell you more about Sam and his weekend voluntary work in our next edition but for now we should explain that the reason



Sam showing off the workshop.

we're able to enjoy having a manager who can bring physiotherapy to our patients, instead of having to provide prosthetic and orthotic skill, is that although Tiwonge is newly qualified, Dumisani is an experienced technician and very competent to take a clinical lead.

We're now focused on spreading the word about what we can offer and developing an effective outreach programme so that everyone in the north who could benefit from a prosthesis or orthosis is aware of, and readily able to access, our service. We're keen to work in conjunction with as many partners as we can to maximize our reach and establish our credibility as a reliable service which is here for the long run. We appreciate that's not something the citizens of northern Malawi have enjoyed before. Already our patient flow is growing. The new website features Susan Banda and Robert Kamanga - two of the Centre's first patients.



Robert Kamanga - one of the patients featured on our new website

Zambia

We've had to change the way we work in Zambia. From 2008 we directly supported the orthopaedic workshop at the Zambian Italian Orthopaedic Hospital (ZIOH) in Lusaka by paying for staff training, salaries and office equipment and by providing direct managerial and administrative support – as well as providing income for the workshop by paying for prosthetic and orthotic devices for people who could not otherwise afford them. At the



The workshop in action

beginning of 2012, there was a change of administration at ZIOH and by the end of the year it had become clear that 500 miles' support was no longer welcome and that the hospital's predominant focus had become its private patients.

From 2013, I'm glad to say that we are still able to support the workshop indirectly by buying devices for poor people from it - but the difference is that we now offer to fund individuals and other organisations all over Zambia to buy a prosthetic and orthotic service from the workshop at ZIOH.

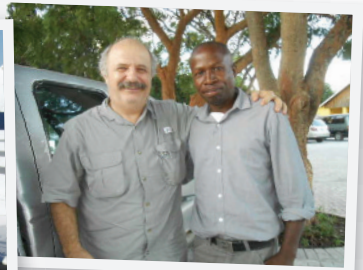
It's early days but the first few outreach trips of the year arranged by Mongu Cheshire Home in Mongu, Kalene Hill Mission Hospital in Kalene, Holy Family in Monze and St Francis Hospital in Katete have gone reasonably well. Mongu Cheshire Home and Holy Family have their own workshops but where remote locations don't have

adequate facilities, we now encourage patients to travel to ZIOH for the fitting service because we've learned that although more expensive, it achieves a better result.

In this work we're delighted to partner and cost share with FlySpec, a Zambian charity, which takes orthopaedic and reconstructive surgery by airplane and road to remote towns and rural communities all over the country where such skilled services would not otherwise be available. We pay FlySpec to carry the ZIOH technicians wherever that is economic. In the past we have provided substantial direct support to FlySpec but although we've now rationalised our focus to prosthetics and orthotics, in this way we can still indirectly support FlySpec which we're very happy to do.



Kumayando - an outreach patient at Mongu



Above: Goran, FlySpec's surgeon & pilot, with Isaac, the clinical manager at ZIOH. Left: Sister Cathy from Mongu Cheshire Home, with Patrick, the administrative manager.

Zanzibar

We began low-level support of the Zanzibar Government owned and run orthopaedic workshop in the capital, Stone Town, in the late spring of 2011. This was so that we could make sure that agreed income handling and basic reporting procedures would be followed before we made a major capital investment in the workshop to allow it to upscale its operations. We gambled on a positive outcome by beginning to sponsor the high level training of one existing member of staff (Abdullah) to degree level and another man (Yussuf), whom we paid to work in the workshop for 8 months, to diploma level. Without this training the workshop could not flourish.



Things started reasonably well and in the spring of 2012, 500 miles began to work with Longniddry Rotary Club to help that Club secure a Rotary Foundation Global Grant for the capital investment required to enable the workshop to gear up and start producing a full range

Yussuf at work

of polypropylene prosthetic and orthotic devices. 500 miles' commitment to considerable ongoing support of the workshop was a key part of the application.

Unfortunately, during the second half of 2012, the workshop's manager's commitment gradually fell away and by the last quarter of 2012 he had ceased to communicate with 500 miles altogether. It's probably fortunate that we've discovered that the manager is more interested in pursuing club foot correction work – which is undoubtedly worthwhile - but this means that we can't justify continued support unless and until there's enough manpower at the workshop which can demonstrate its commitment and ability to use the proposed investment to develop the capacity of the workshop as planned.

We think this could happen because, if we continue to sponsor them, Abdullah should qualify in August 2014 and Yussuf should follow a year later. In addition, a Zanzibari NGO called Zanzibar Outreach Program (ZOP) has told us that it has recently taken on responsibility for the running of the workshop. We hope this will make a difference and that ZOP will soon make a viable proposal to 500 miles for our future support.



Tiyese Mwese was one of the first patients at the new 500 miles Centre in Mzuzu. Now six years old, she was born with a short femur on her right side meaning she has had to hop or crawl to get around. She lives in a rural village quite near Mzuzu and was referred to 500 miles through an outreach clinic run by a Malawi Government agency called MACOHA (funded by Christian Blind Mission) with which 500 miles works. Dumisani, our senior prosthetist/orthotist made an extension

prosthesis - a cross between a prosthesis and an orthosis - for her and she's now able to walk quite comfortably on it. As Tiyese grows she'll be able to come back to our Centre to have a device with a knee joint fitted. That will allow her to have a near normal gait pattern which it is vital for her to learn at a young age. The location of the new 500 miles Centre in the north means that it's perfectly feasible for Tiyese to come for regular reviews and adjustments of her device as she lives only an hour away from us.

Olivetti Liberito was 10 years old when she was first brought from her village in Mchinji to the 500 miles Centre at Kamuzu Central Hospital in 2009 by an Irish nutritionist who was living in Malawi for a while. When she was one, Olivetti had stepped into a cooking fire and both feet had had to be amputated through the ankle. These bilateral amputations are known as "Symes". Until she came to us, Olivetti had got around on her knees but had been able to stand on her stumps for short periods. We fitted her with two prostheses enabling her to go to school. Her twin sister had started school the year before so she was

only one year behind. The school is very near the DIPD clinic (see our update on the Lilongwe project) in Mchinji and Olivetti is on their books so she is reviewed regularly. You can see her here with her father after her first fitting and then again three years later in March 2012 with new devices. Olivetti likes to dance and the last we heard was that she now needs reinforced devices to withstand her more energetic moves!



Alick Chimtanzi is another mutual 500 miles/DIPD patient who was referred to the 500 miles Centre at Kamuzu Central Hospital by our new manager, Evelyne, in her role as a volunteer physiotherapist for DIPD. (Please see our introduction to Evelyne and DIPD under our update on the Lilongwe project.) Alick who is now 36, lives in a village in Mchinji District where DIPD is very active. Four years ago Alick lost his left leg above the knee in a car

accident. Before he had the accident Alick cut branches off trees to be sold as timber. Since the accident he has been unable to climb a ladder and earn a living or even to walk. But now because of the above knee prosthesis 500 miles fitted him with, he's able to walk again and through DIPD, he's currently receiving vocational training in carpentry which he enjoys. Alick needs the support of crutches for long distances but he can now walk short distances unsupported - and without keeping his artificial knee locked straight.

James Chika was born without a tibia. This means that he can't weight bear through his leg as the tibia will bow. He was referred to the 500 miles Centre in Lilongwe through MAP, a Malawian Government agency, to which his mother has been taking him for advice since he was born. We've made a device for James which is technically called an extension prosthesis - like Tiyese's - but it's really more an ankle/foot orthosis

with a "build-up" under the heel and incorporated weight relieving. James bears weight through his patella tendon and onto the polypropylene (plastic) front piece to the ankle/foot orthosis and not on his leg since this would deform the shape of the bone as it's not strong enough to support him. This is the best solution we can find for now but as he grows we will adapt the ortho-prosthesis to his changing situation.

