



BEYOND TRADITIONAL BORDERS

OWLS BEYOND BORDERS RICE UNIVERSITY
STUDENT INTERNATIONAL INTERNSHIP BLOG 

Reports from Malawi

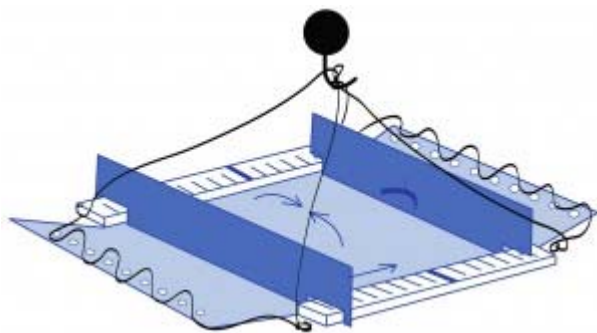
Just another weblog

[Babymetrix](#)

by [ha9](#) on July 13, 2013

Filed under: [Uncategorized](#)

A few weeks ago, I wrote about the pediatric malnutrition we see here and included some detailed stat sheets that UNICEF and the WHO keep on stunting and wasting in Malawi. The statistics, as I talked about then, are shockingly bad: in 2010, the WHO reported that 70.7% of under-5 rural Malawians showed stunted growth (stunting is defined as -2 SD length for age). What I didn't get into then was my bafflement at how they'd actually gotten those numbers. I've lived in rural Malawi for 2 months now, and I've seen a baby's length taken exactly once.

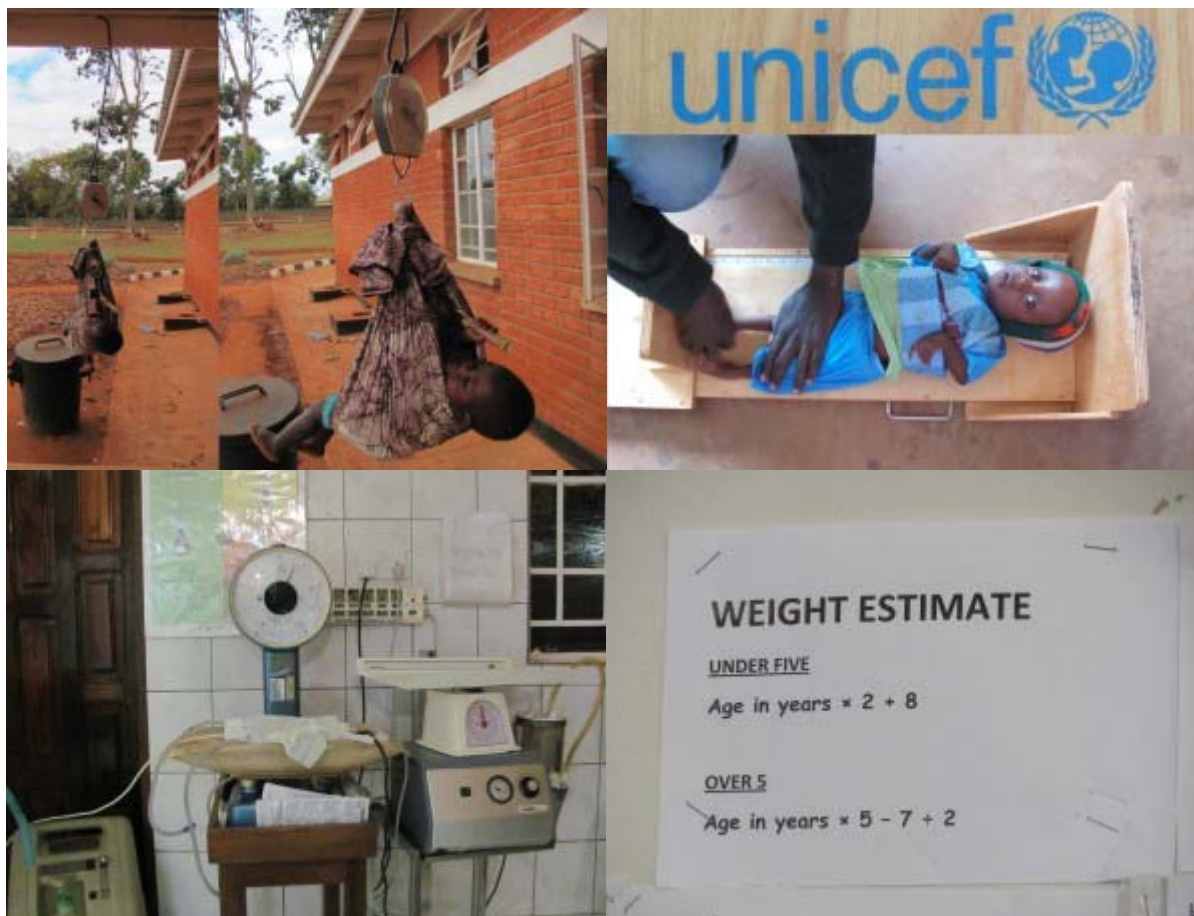


It's been suggested that length, weight, and head circumference data is poor because there's not an adequately efficient and low-resource-compatible technology to do the measuring. An [undergraduate team](#) in last fall's GLHT 201 class came up with a solution called [Babymetrix](#) that costs less than \$40, requires one user, and doesn't need power. I sat down yesterday with Hellen, a nurse who coordinates the outpatient and community-based under-5 clinics, to get her opinion of their design sketches.

The U5 clinic happens every Tuesday at the hospital, and twice a month in Kapudzama and Chikudzulire. Each clinic is run by two people and sees roughly 100 patients in a day. As Hellen put it, not taking length measurements is "just a matter of understaffing. There are only two people in a week, so if one person is taking the weight, the other is taking the register."

She was optimistic about the design. I tested Babymetrix out earlier this summer on a table at Rice, and I was surprised to find that what had made it tricky to use for me— the large size— actually makes it very easy to integrate to their current setup. Mothers might be less hesitant about a new device if the tarp functions the same way the chitenje does, and the device I tried out would fit well in the big outdoor space where they hang the scale. We wouldn't need to redesign how their clinic runs, we'd just need to add two steps at the weight-measuring stop.

- **Current methods at St. Gabriel's:**



- Weight is recorded pretty universally for pediatric patients, because weight and vaccine records have to be sent to the District Health Officer monthly for trend analysis. The hospital has a number of scales available, though the U5 clinics use a chitenje hooked onto a hanging scale.
- The only clinic in the hospital that currently records length is the NRU (Nutrition Rehabilitation Unit), even though the Malawian Ministry of Health included length-for-weight growth charts in their 2012 redesign of the U5 health passports. They have two UNICEF length boards.
- Labor ward is also supposed to measure head circumference at birth, but it's not done — having seen how hectic that ward can get, I understand why. They have the tape measures and a donated integrated length-weight scale, but they don't have the time if nurses don't feel it's necessary.
- The sign on the bottom right was posted in the lab. Presumably weight isn't given consistently.



Depending on the progress of the device this year, this could either be a good technology to bring to St.

Gabriel's next year, or a possible site project for next year's interns: recreating the design using the length board, chitenjes, and scales already here. The crop scales aren't hard to find, and an easy-to-use fix could go a long way.

- Authors

- [Ariel Chen](#) (20)
- [Alexa Juarez](#) (10)
- [Alexandra Ernst](#) (10)
- [bm16](#) (0)
- [Bridget Ugoh](#) (17)
- [Daniel Hwang](#) (10)
- [Danielle Axelson](#) (18)
- [Elizabeth Dunn](#) (12)
- [Elizabeth Carstens](#) (12)
- [Elizabeth Nesbit](#) (20)
- [Grace Wichmann](#) (0)
- [ha9](#) (17)
- [ichang](#) (0)
- [Jasper Yan](#) (11)
- [Kamal Shah](#) (3)
- [Kathleen Wiest](#) (13)
- [krm6](#) (0)
- [ljv1](#) (0)
- [Matthew Johnson](#) (0)
- [Michael Heisel](#) (8)
- [Teresa Yeh](#) (3)
- [Rahul Rekhi](#) (5)
- [reg4](#) (0)
- [Sabha Momin](#) (7)
- [Sam Olvera](#) (15)
- [Tara Slough](#) (4)
- [Tiffany Wu](#) (12)
- [vl2](#) (0)
- [Yiwen Cui](#) (16)

- Pages

- [About](#)

- Categories

- [Malawi](#)
- [Uncategorized](#)

- Search

- Archives

- [July 2013](#)
- [June 2013](#)
- [May 2013](#)
- [August 2012](#)
- [July 2012](#)
- [June 2012](#)
- [May 2012](#)
- [August 2011](#)