

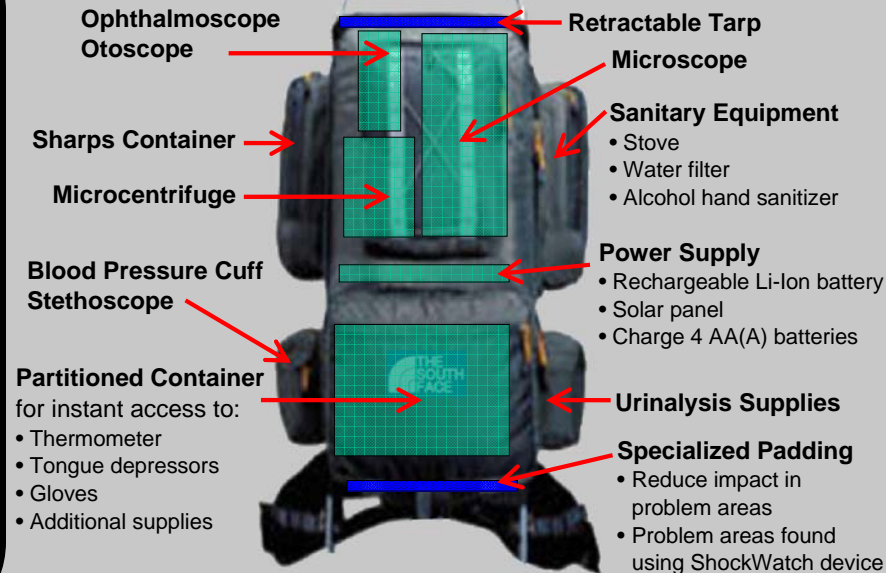
The Problem

- There are many medical service organizations and independent physicians conducting *pro bono* medical work in the developing world.
- The home-made medical examination kits that doctors bring with them are
 - Time-consuming to construct
 - Inadequate
 - Disorganized
- To conduct their work, physicians need a portable examination package that contains
 - Basic clinical examination equipment
 - Electrical diagnostic devices
 - A renewable and reliable power supply

Design Objectives

To create a backpack that is:

- Easy for clinicians to use
- Watertight
- Able to serve 20 patients per visit
- Less expensive than \$2,000



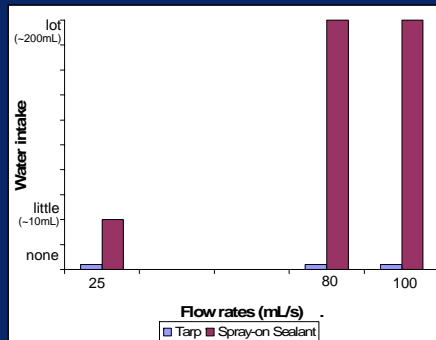
Conclusion

- Retractable tarp innovation protects medical devices from water and rain damage.
- User surveys indicate that the MedPack's efficiency could be improved by adding country specific diagnosis tools.
- Fully-charged electronic instruments can treat more than 100 patients.
- The MedPack can be reproduced for approximately \$1000.
- By using the MedPack, physicians will be enabled to efficiently provide comprehensive medical examinations in the most medically underserved parts of the world.

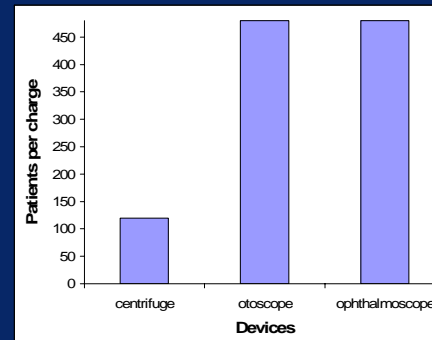
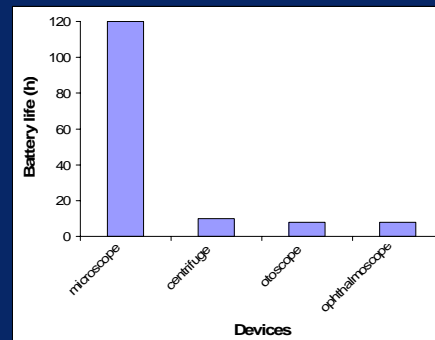
Acknowledgements

- We appreciate our funding from the Howard Hughes Medical Institute Beyond Traditional Borders Program, George R. Brown School of Engineering, and the Brown Foundation Teaching Grant.
- We would like to thank: Dr. Maria Oden; Yvette Mirabal, Guadalupe Rodriguez and Rachel Wergin from the Beyond Traditional Borders Program; Dr. Roosevelt Alcorn; Gwen Hoben, Jim Kretlow, Tim Muldoon, Roman Natoli, and Elizabeth Stephens; Drs. George Parkerson, Fareed Khan, David Hilmer, Stephen Scott from Baylor College of Medicine; and the Cain Project.

Tarp innovation protects devices from rain.



Integral lithium-ion battery can provide power for more than 100 visits.



User Ratings

