Global Health Medical Device Compendium

The Global Health Medical Device Compendium is an inventory of medical devices designed for use and/or implemented within resource-limited settings. The compendium is sortable by health topic (e.g., Malaria and HIV/AIDS), classification (i.e., Preventative, Diagnosis or Treatment), scope (i.e., Prototype, Clinical trial, Commercialized) and location (by continent).

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About

The Global Health Medical Device Compendium is the work of Prof. Kathleen Sienko and her graduate students, and the Center for Global Health Student Associates at the University of Michigan. Browse all devices.

For their collaboration we thank Prof. Kathleen Sienko, who directed student research on a global health compendium through her Design for Global Health course and represented the Center for Global Health at the University of Michigan, Center for Global Health Director Dr. Sofia Merajver, Linkages and Education Officer Kate Restrick, Technical Support Manager Uma Karri, and Student Associate Amir Sabet Sarvestani. This work was partially supported by the University of Michigan Center for Global Health Junior Faculty Engagement Award and previously presented at the WHO's First Global Forum on Medical Devices (Bangkok, 2010) and at the Design of Medical Devices Conference (Minneapolis, 2011).
Viewing the medical device compendium

- 2 FT Prosthetics
- 3D printed otoscope
- 3M Tempa Dot Thermometers
- ANSIscope
- Acuset IV Flow Controller
- Adjustable Bicycle Limb
- Aerosol Oxytocin Delivery System
- Amplified Fluorescence by Transmitted Excitation of Radiation (AFTER)
- Anti-Shock Garment (aka Life Wrap)
- Antiretroviral Pouch
- Assisted delivery device
- Automatically Deflating Air Postpartum Tamponade (ADAPT)
- BD SoloShot LX
- BIRTHweigh III
- Baby Bubbler
- Baby CPAP
- Baby Monitor
- Bakri SOS Balloon
- Bi-Directional Membrane for Child Delivery
- BiliSol Phototherapy System
- Bilibed
- BluLine Phototherapy
- Brass-V
- Breath of Life CPAP
- Brilliance
- Burnell Ventouse
- CAPP (Tire/Pressure Circumferential Abdominal-Pelvic Pressure Device)
- CD4 Initiative Test
- CO2-Baited CDC Light Trap
- CPD risk assessment device
- CRADLE
- Cell Phone Malaria Detector
- Cell phone based referral platform for maternal health
- Cell phone-based intelligent biometrics
- CellScope
- Ceramic Cord Scissors
- CerviScope
- ClearVue
- Clinitek Microalbumin Strips
- Cloth (Sari) Filtration
- Comet
- Condom Catheter Balloon
- Congo Red Dot Test
- CooKit
- Crystal VC
- D-tree Mobile Health Algorithm
- Daktari CD4
- DeNovo Meter
- Diamedica Portable Anaesthesia System
- DoubleCheckGold HIV 1
- Draper TB Breathalyzer
- E-Nose
- EB1 Foot
- EC-Kit
- Early diagnosis device for neonatal sepsis
- Electrical Stimulation for Postpartum Hemorrhage
- Embrace Infant Warmer
- External Aortic Compression Device
- Fertility Awareness Application for Cellphone
- Firefly
- Firefly Phototherapy System
• Freeplay Fetal Heart Rate Monitor
• Global Focus Microscope
• Guava Auto CD4/CD4% System
• HTI Hydropack
• Hand-washing Dispenser
• Handheld Maternal-Fetal Early Warning System
• Hansen Ventilator
• Healthpoint Services
• Hemafuse
• HemoCue Anemia Test
• Hemoglobe
• Hemoglobin Color Scale
• Hemopurifier
• Home Phototherapy Unit
• Hot water bottle incubator
• Human Powered Nebulizer
• Hypertension Detector for Developing Countries
• IPT Open Socket Technology
• iStethoscope
• ImmuNet
• InNova Sound Portable Ultrasound
• Infant Hydration Monitor
• InfantAIR
• Inject and Forget Contraceptive Drug Delivery Device
• Inov8 Air Disinfection Unit (known as Aerte)
• Inspire Breathing Assistant
• Iris recognition system
• Jaipur Foot
• JaipurKnee
• JustMilk Nipple Shield
• Kanchan Arsenic Filter
• Kanga
• Kelly's Pad
• Kisii Water Filter
• Kiwi Omni-C Cup
• Kopper
• LRM TB Tester
• Life Straw Family
• Lifelens Application
• Low-Cost Nano Sensor to Diagnose Heart Attack
• Low-Cost Strip Test
• Low-Cost, Point-of-Care Paper-Based Microfluidic Diagnostics
• Low-cost portable mechanical ventilator
• Lung Flute
• M1 Knee Prosthesis
• MChip
• MOT-TEST
• MTB/RIF-Cepheid
• Male Circumcision Device
• MamaNatalie Birth Simulator
• Masavu Stethoscope
• Masimo SpHb
• Mechanical Uterine Clamp
• Medical Silicone Resuscitator
• Microlife 3BTO-A
• Mid-Upper Arm Circumference band
• Mini Blood Bank
• Miraculins Biomarker
• Mobile Diagnostic Ultrasound Scanner

Acknowledgments
The design and development of health-related technologies for resource-limited settings requires a detailed consideration of the end user and target community that goes beyond the traditional engineering design needs assessment. In a broader sense, economic, social, and cultural constraints must be considered for successful implementation of technologies.

**Prof. Sienko's ME/BME/ENGR 599**  
**Design for Global Health: Sustainable Technologies for the Developing World**

This course emphasizes a multidisciplinary approach to global health design and interactions between engineering disciplines and nontechnical fields via lectures, case studies, group discussions, an optional experiential field site experience, and the development of a medical device and healthcare technology compendium. Students explore the current state of global health challenges and assess best and worst practices regarding technology design principles that address those problems. Students travel to Nicaragua during Winter Break to conduct clinical observations in rural and urban health clinics.

**ME/BME/ENGR 599 Student Contributors (Winter 2010)**

Dayna Anderson, Doug Andersen, Tejkaran Gill, Brian Holcomb, Chang Jiang, Rajen Kumar, Chris Maue, Kelley Maynard, Joseph Perosky, Amir Sabet Sarvestani, Ally Schafer, Kim Song, Mike Weist, Danielle Williams, Mike Yee.

**The University of Michigan Center For Global Health**

The University of Michigan has a legacy of working on critical health issues through research and action. The Center for Global Health builds on this tradition by generating novel approaches and partnerships that improve health and redress pressing health inequalities. Through its research, training, and service activities the Center is centrally concerned with work that aims to promote global health equity. The University of Michigan is replete with students at all levels who are, or hope to be, engaged in global health activities as part of their education and of their careers. The Center for Global Health brings together the strength and expertise of University of Michigan faculty and students to find and implement sustainable solutions that improve health by solving specific problems with partners around the world. Through a Student Associate program, the Center for Global Health helps students at all levels from across the University to become engaged and create a vibrant, intellectual community interested in producing scholarship and tangible progress in global health equity.

**2010-2011 Center for Global Health Student Associates and Contributors**

2011-2012 Center for Global Health Student Associates and Contributors

Aekka Apoorva, Sepideh Ashrafzadeh, Eva Shiu (team leader), Ryan Frisbie, Jillian Plonsker, Sandhya Kajeepeeta, Michael McHenry, Rajen Kumar, Chris Maue, Ibrahim Mohedas (team leader), Bryan Ranger, Linda Schultz, Lindsay Townes (team leader), Caitlin Winget, Amir Sabet Sarvestani (project leader).

2012-2014 Student volunteers - University of Michigan

Aekka Apoorva, Jay Antonishen, Elizabeth Hyde, Jillian Plonsker, Lindsay Townes (team leader), Eva Shiu, Caroline Soyars (team leader), Kelly Wojcik, and Amir Sabet Sarvestani (project leader).

University of Michigan and Appropedia

Appropedia Founder and Humboldt State University Lecturer Lonny Grafman met University of Michigan Assistant Professor Kathleen Sienko at the 2009 NCIIA-sponsored Indian Point International Development and Appropriate Technology conference. During the meeting the two discussed possible collaborations on the topics of engineering education, service learning, and appropriate technologies. Lonny, Kathleen, and the Center for Global Health teamed up in the summer of 2011 to initiate the collaboration.

External links

- Global Journal of Engineering Education - Medical device compendium for the developing world: a new approach in project and service-based learning for engineering graduate students.
- Open-Source, Wiki-Based Medical Device Compendium for Global Health - Poster at World Health Organization