Update on Ceramic Water Filter Project

Katie Friedman ‘10 CHE
Prof. Wole Soboyejo MAE
Background

• Starting in 2007, research on ceramic water filters
• Took lab knowledge to field in Abeokuta, Nigeria August 2008
• Started factory in collaboration with local university
Background

- Case study in Eweje Village to track the impact of the filter
- Conducted a survey of general health questions as well as measurements of children to track growth
Update: Factory

- Production has become more efficient, built up inventory
- Supply chain
- Preliminary orders have been received
Update: Case Study

- Filters distributed to participating families at end of January 2009
- 6 month follow-up survey data
- Few new families added
- Positive response
Update: Lab Research

• 99.68-99.99% bacteria removal for ranging porosity volume fractions
• Further tests on understanding porosity, flow, and effect on filtration
• Paper to go out around end of this month
What’s next?

• Work in conjunction with Prof. Jaffe (CEE) to apply knowledge gained from the ceramic filter to creating an effective filter for the removal of fluoride

• Further investigate the ceramic filter and how it interacts with viruses, potentially improving filter’s capabilities