

**your water
purification expert**

**A successful double blind study in Dhaka, Bangladesh ,
evaluated the health impact of **Aquatabs Flo**[®]**
Water Purification Unit



23%
reduction in
diarrhoea levels



38%
reduction in Dhaka
Uddan study site



Low Cost
to families and reduction
in healthcare fees.

Despite considerable progress in expanding access to “improved” water sources over the past several decades, it is estimated that roughly one billion people still receive water that does not meet international standards for safety. To help address this issue, Aquatabs partnered with the Woods Institute at Stanford University in 2015 to explore an alternative paradigm for water treatment in low-income urban areas, termed POINT OF COLLECTION DISINFECTION (POC)

WORKING TO GET MORE PEOPLE SAFE WATER

Efficacy

This study follows on from an initial efficacy trial for the Aquatabs Flo in 2015 where water quality was tested in 40 compounds with Aquatabs Flo installed in their shared water points. Of the 221 samples taken in Dec 2015, 76% had free chlorine residual at above 0.1 parts per million at the hand pump.

Stanford Team

The Stanford team of researchers led by Jenna Davis in collaboration with Medentech, ICDDR,B and Lotus Water project, tested water treated by the Aquatabs Flo at the point of collection. The community scale, fully automated chlorine dosing device for shared water points in low income urban settings requires no electricity, running on the flow of the water only.

Aquatabs Flo is pre-set to purify 90m³ litres of water @ 2parts per million at a flow rate of 20 litres per minute. By simply splitting the flow of the water, the dosing levels are decreased allowing for larger volumes of water to be treated. Dosing at lower levels requires prior analysis of water source, turbidity, total dissolved solids, ph, hardness and coliform counts.



THE WORLD BANK

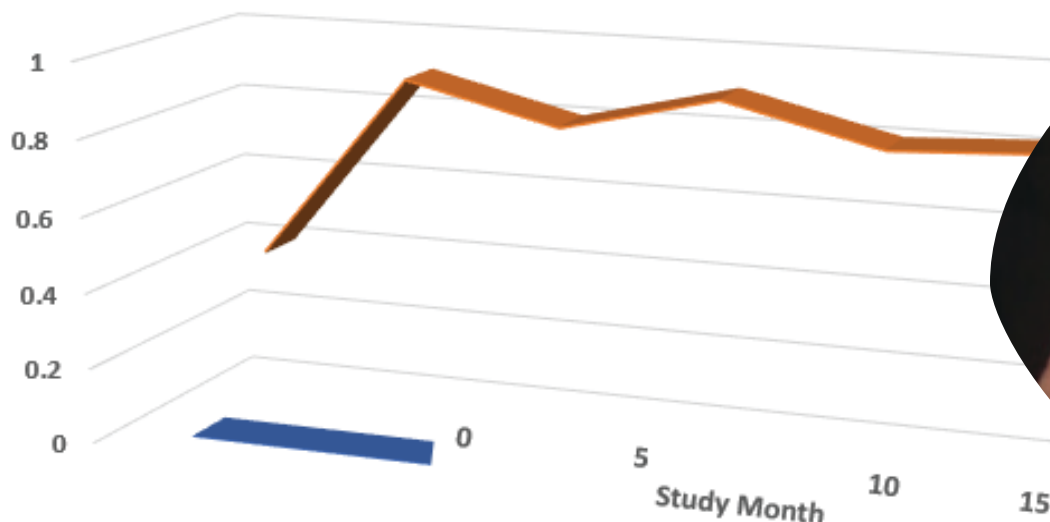
Tufts
UNIVERSITY



icddr,b

Chlorine Dosing Performance

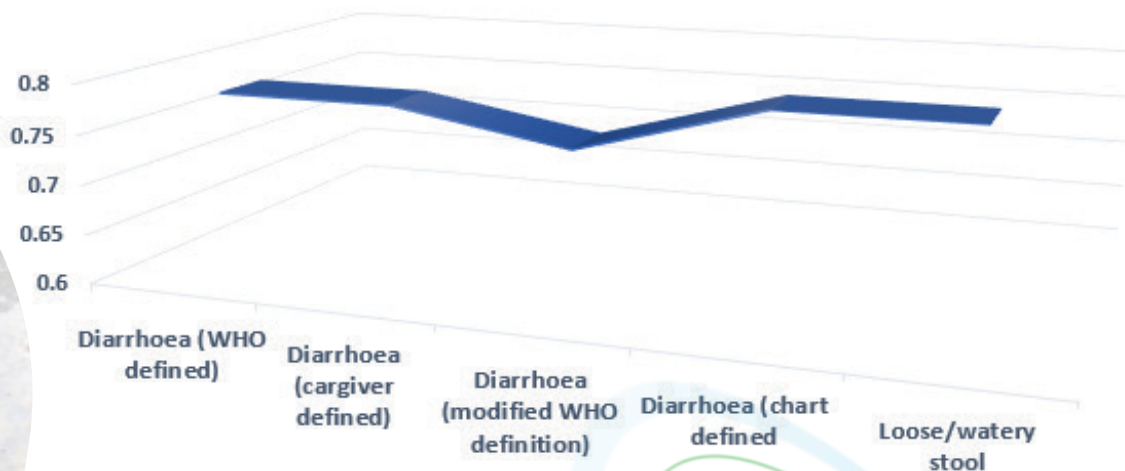
■ Control ■ % taps with chlorine



Health Benefits

The team installed and maintained more than 100 Aquatabs Flo serving 1,100 households in Dhaka, Bangladesh. The aim was to control and maintain the chlorine residual in the water between 0.1mg/L - 2g/L of free chlorine at each site. The installation sites were used to evaluate health impacts and test the viability of different potential business models. To assess the health impact, the team did a one year double blinded study with World Bank funding that seeks to assess the impact of the invention on childhood diarrhoea, weight for age, enteric pathogen burden, and serological markers of waterborne disease.

Effects on Child Health



Economic Model

Reduced child diarrhoea by 23%

(previous blinded trials failed to detect effect on diarrhoea)

11% reduction in health care costs

30% less likely to seek treatment for gastrointestinal illness

Reduced antibiotic consumption within 2 months

Targeted low chlorine residual dose effective (0.3-0.5ppm) increasing acceptance of chlorinated water

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