London School of Hygiene & Tropical Medicine

Thomas Clasen, JD, PhD
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Faculty of Infectious & Tropical Diseases
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- Founded in 1899
- Part of University of London (with LSE, UCL, etc.)
- Leading postgraduate institution in Europe for public health and tropical medicine
- 800 London-based masters and research degree students from 120 countries
- >400 academic and research staff in three departments: Infectious and Tropical Diseases, Epidemiology and Population Health, Public Health and Policy
Research Group

- Thomas Clasen, JD, PhD — Senior Lecturer in Water, Sanitation and Health
- Joe Brown, MSc, PhD—Lecturer in Public Health
- Wolf-Peter Schmidt, MD, PhD—Lecturer in Epidemiology
- Belen Torondel, PhD—Research Fellow (Orissa Trial Microbiologist)
- Sophie Boisson, MSc, PhD Candidate—Research Fellow (Orissa Trial Manager; Rwanda filter/stove study)
- Ghislaine Rosa, MSc, PhD Candidate —Research Assistant (Assessing the household water treatment practices; Rwanda filter/stove study )
- Paramita Routray, MA, PhD Candidate (Orissa Trial Assistant Manager)
- Melissa Bell, MSc, PhD Candidate (Orissa Trial Entomologist)
- Antara Singh, MSc, PhD Candidate (Monitoring Latrine Use)
- Marieke Heijnen, MSc, PhD Candidate (Shared Sanitation)
- Miles Kirby, MS, MPH (Orissa Trial)
- Fiona Majorin, MSc Research Assistant (Rwanda filter/stove study)
- Daniele Lantagne, PhD –Tuffs University (HWTS in emergency response)
- Matthew Freeman, PhD—Emory University (School-based WASH)
- Mimi Jenkins, PhD—UC Davis (Sanitation)
Recent RCTs

- Boisson S, Stevenson M, Shapiro L, Freeman M, Clasen T. Assessing the impact of household water treatment with NaDCC tablet: a double-blinded, placebo-controlled randomized, controlled trial in Orissa, India (submitted)
- Freeman M, Clasen T, et al. The impact of a school-based water supply and treatment, hygiene, and sanitation program on pupil diarrhea: A cluster-randomized trial (submitted)
# Rural Sanitation in India

<table>
<thead>
<tr>
<th>Partners</th>
<th>Water Aid and local implementing partners; XIMB, Asian Institute of Public Health; Kalinga Institute of Industrial Technology; Emory University; UC Davis; Yale University</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Site</td>
<td>100 villages in Orissa, India where latrine coverage at baseline was &lt;10%</td>
</tr>
<tr>
<td>Intervention</td>
<td>Construction and promotion of duel pit pour-flush latrines under the Gov’t of India Total Sanitation Campaign</td>
</tr>
<tr>
<td>Health outcomes</td>
<td>Diarrhoea, helminth infection, weight-for-age, height for age</td>
</tr>
<tr>
<td>Environmental outcomes</td>
<td>Water quality, mechanical vectoring (via flies), hand contamination, human- vs. animal specific pathogen exposure</td>
</tr>
<tr>
<td>Behavior outcomes</td>
<td>Latrine construction, maintenance and use; possible extension for disposal child faeces, digging and diversion to second pit</td>
</tr>
<tr>
<td>Economic outcomes</td>
<td>Cost, cost savings, cost-effectiveness</td>
</tr>
<tr>
<td>Other outcomes</td>
<td>Process monitoring; externalities</td>
</tr>
<tr>
<td>Funding</td>
<td>BMGF, 3ie, SHARE (DfID)</td>
</tr>
</tbody>
</table>

## Water Filters and Stoves in Rwanda

<table>
<thead>
<tr>
<th>Partners</th>
<th>DelAgua Health and Development; Rwanda Ministry of Health; Rwanda Environmental Management Agency; Portland State University; Berkeley Air Quality Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study Site</td>
<td>2000 households in 15 districts in Rwanda</td>
</tr>
<tr>
<td>Intervention</td>
<td>Gravity-based water nano-filters; improved cook stoves</td>
</tr>
<tr>
<td>Health outcomes</td>
<td>None in Phase I; clinically confirmed diarrhoea and respiratory infection in &lt;5s in Phase II</td>
</tr>
<tr>
<td>Environmental outcomes</td>
<td>microbiological water quality; indoor air</td>
</tr>
<tr>
<td>Behavior outcomes</td>
<td>Filter use; stove use; shift to cooking outdoors</td>
</tr>
<tr>
<td>Economic outcomes</td>
<td>Fuel collection; fuel consumption; cost of fuels</td>
</tr>
<tr>
<td>Funding</td>
<td>Carbon credits</td>
</tr>
</tbody>
</table>
Assessing Intermediate Outcomes of Improved Sanitation

Source: Wagner and Lanois, 1958
Seema Jayachandran

Northwestern University

Associate Professor of Economics

Co-chair J-PAL Health Program with Sebastian Galiani
• Current projects in Uganda and India
• Main research interest: Health
• Other interests
  • Environmental issues
  • Labor markets (livelihoods)
  • Governance
  • New technology