Water, Sanitation and Hygiene in Developing Countries:
an HWTS perspective

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Outline

HWTS

• Context
• Why we need it
• Where we need it
• Some history
• Future outlook
Annual cost of not dealing with water, sanitation and hygiene

Lives lost
• 1.6 million annually due to diarrhoea alone
• Especially children also malnutrition

Health care costs:
• USD7 billion per year to health agencies
• USD340 million to individuals

Value of time lost
• USD 63 billion per year

Economic impact
• estimated 1-4 trillion dollars (2 – 7% of GDP).
WaSH = disease and poverty?

- Inadequate water supply
- Unsafe water resources
- Inequitable access

- Time, financial cost
- Disease burden
- Health care costs

POVERTY
Trends in use of an improved drinking-water source 1990 – 2008 and projections to 2015

1990
23% un-served
1.2 billion

2015 (projected)
9% un-served
672 million
Out-perform target (12%)

MDG goals: on or off-track?

Drinking-water: on track

Sanitation: off track

Population (in billions)

If on track to reach the MDG target
Current trend
Sanitation lags behind water

<table>
<thead>
<tr>
<th>Current benchmark</th>
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<tr>
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<td><strong>Safe</strong> water at home</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Even more off track!</strong></td>
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Wait in line?

• Even the MDG target of ‘halving the unserved’ will leave large populations un- or under-served
• Because the *numbers* of un- or under-served are stagnant, the global burden of disease remains high
• The human right to water creates an imperative to directly tackle the circumstances of un- and under-served populations in all countries
• HWTS provides a tool to tackle both
WaSH = motor of development

- Improved water supply
- Safe water resources
- Universal access
- HWTS where needed

- Time, financial savings
- Averted disease costs
- Health & education

Development
Who are the targets of HWTS?

The un-served, no?
## Looking closer

<table>
<thead>
<tr>
<th>Unserved</th>
<th>Urban poor</th>
<th>Rural poor</th>
<th>Rural piped supplies</th>
<th>Urban piped supplies + weak regulation</th>
<th>Urban supplies + strong regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect water from unprotected sources</td>
<td>Collect water from protected sources away from home</td>
<td>Collect water from protected sources away from home</td>
<td>NB most (1.04M) in the developing world</td>
<td>Water piped into house/onto plot; supply may be irregular, quality may be compromised</td>
<td>(developed countries)</td>
</tr>
<tr>
<td>0.87 billion people</td>
<td>0.58 billion people</td>
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<td>0.75 billion people</td>
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<tr>
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Facilitating access to higher levels of service for households.

Improved system reliability, safety.
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Household Water Treatment and Safe Storage
Target group: 6 billion?
Organizing HWTS as a response

Early 2000s

- Fragmented
- Gaps in the knowledge
- Lack of awareness of HWTS as interim response

HWTS Network created in 2003
Some successes

2003-2009 – “Phase 1”

- HWTS identity
- Widespread international awareness
- Acceptance of HWTS "potential"
- Emergence of wide body of HWTS-related research
- Development of national action plans
## Use of HWT in developing regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Total %</th>
<th>Rural %</th>
<th>Urban %</th>
</tr>
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<tr>
<td>Western Pacific</td>
<td>66.8%</td>
<td>65.8%</td>
<td>68.0%</td>
</tr>
<tr>
<td>Southeast Asia</td>
<td>45.4%</td>
<td>42.2%</td>
<td>56.0%</td>
</tr>
<tr>
<td>Latin America &amp; Caribbean</td>
<td>40.0%</td>
<td>36.8%</td>
<td>42.1%</td>
</tr>
<tr>
<td>Central and Eastern Europe</td>
<td>39.4%</td>
<td>33.4%</td>
<td>43.0%</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>13.6%</td>
<td>10.4%</td>
<td>18.1%</td>
</tr>
<tr>
<td>Africa</td>
<td>18.2%</td>
<td>17.0%</td>
<td>21.0%</td>
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*Source: Rosa & Clasen, 2010.*
Recent Network developments

The Network in 2010/2011

- Recent JMP data estimate 1.1 billion people using HWT
- New strategy developed with WHO/UNICEF as co-hosts
- New resources focusing on direction, activities, comms
- 90 organizations worldwide have recommitted
- Upcoming meetings: Uganda, Cambodia, USA
Looking ahead

2011-2016 – “Network Phase 2”

- Continue strengthening evidence base
- Tangible results in the scaling up of HWTS globally
- Policy advocacy and integrated environmental health focus
- Dissemination and evaluation of best practice
Challenges to scaling up

- Belief that diarrhea is not a disease
- Scepticism about effectiveness
- Need for sustained behavior change
- Public health suspicion of commercial agenda
- Nay-sayers
- Orphan status of HWTS at public sector level
- Perceived conflict with public water supply
Who?

• WaSH intervention
or
• Health intervention?

• Right to Water and Right to health change perspective
Health Sector Involvement in WaSH

Health professionals see WaSH as important

- 2007 BMJ survey participants hailed sanitation as *the most important medical milestone since 1840*

BUT do not see relevance to day-to-day work

- (informal but consistent feedback)

**Key Questions:**

- What roles can health systems play to effectively advance WaSH?

- Does HWTS offer a natural entry point for greater health sector engagement?

Sources: Ferriman, 2007; Bartram and Platt, i2010
Five Key Capacities for Health Sector Functions

Source: Bartram and Platt, i2010
... and beyond?

<table>
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<tr>
<th>Success factor</th>
<th>Status</th>
<th>Remarks</th>
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<tr>
<td>Accepted and validated?</td>
<td>+/-</td>
<td>Continue strengthening evidence base (RCTs and more)</td>
</tr>
<tr>
<td>Regulated?</td>
<td>•</td>
<td>WHO Guidelines in progress (Sobsey &amp; Brown)</td>
</tr>
<tr>
<td>Monitored?</td>
<td>•</td>
<td>More M&amp;E needed especially at grassroots</td>
</tr>
<tr>
<td>Adopted?</td>
<td>~</td>
<td>Post-MDG policy integration National policies for scale-up</td>
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UNC

• HWTS Network communications

• New Journal to help overcome fragmentation of evidence on WaSH, Health and Development

• Annual Conference ‘Where Science meets Policy’
WaSH and Development Research

- Cooperating with the International Water Association in publishing a new *Journal of Water, Sanitation and Development* (launch April 2011).
Annual Conference and Networking

Water and Health: Where Science Meets Policy
Chapel Hill, NC | October 3-7, 2011

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October 3-7, 2011

Bringing together academic research and professional development workshops

Join individuals and experts from academia, industry, NGOs, government and foundations to deal with critical concerns relevant to both the developing and developed worlds.

We are soliciting abstracts for both platform and poster presentations until April 30, 2011; click here for more information.

Important Reminders

- Prize for Outstanding, Emerging Author from a Lower Income Country

2011 Main Conference Themes:

- Freshwater Availability & Climate Change Adaptation
- Southeastern U.S. Water Challenges
- Human Rights and Ethics
- Small Community Water, Sanitation and Hygiene
- Peri-urban Water, Sanitation and Hygiene
- Hygiene Behaviors and Household Water Treatment

Just Announced: Special workshop on Household Water Treatment and HIV / AIDS