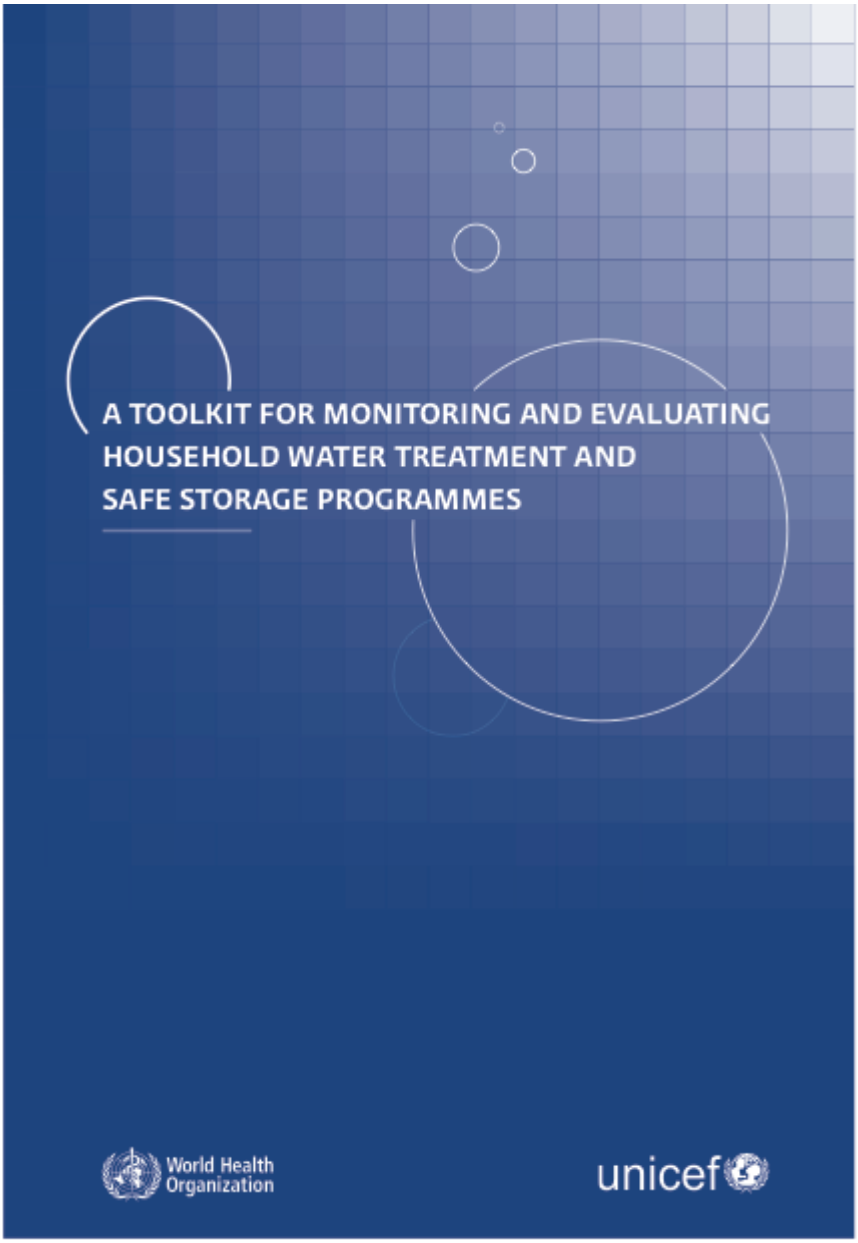
M & E TOOLKIT



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Household Water Treatment and Water Safety Plans
International and Regional Landscape

UNC WATER INSTITUTE

AGENDA

- Purpose
- M & E Overview
- 20 Standard Indicators
- M & E Toolkit at National Scale

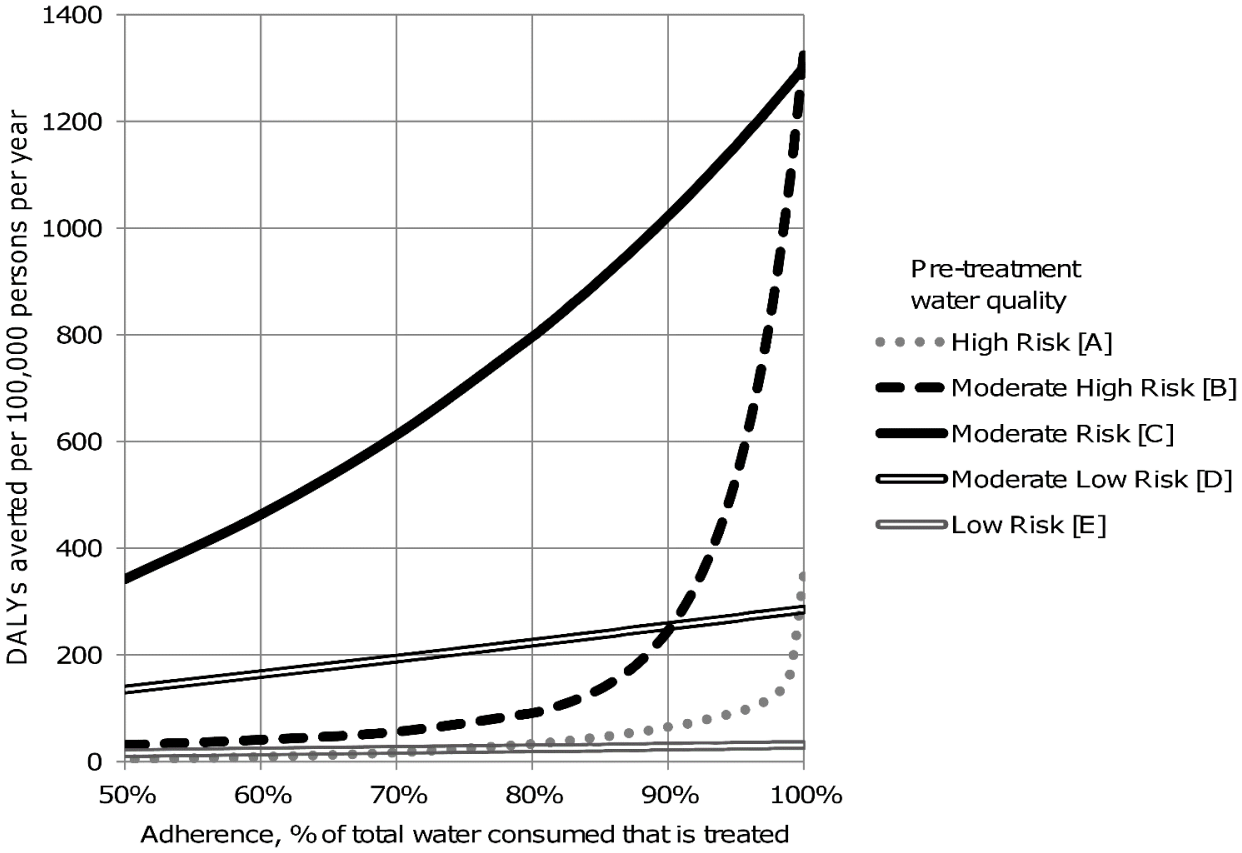
Goal : Begin discussion on how to use and promote the Toolkit

TOOLKIT PURPOSE

- **Focus :** How to monitor and evaluate HWTS uptake as a way to develop strategies **to encourage correct and sustained use**
  - Behavioural change necessary for health benefits : HWTS improves water quality at point of use **with correct and sustained use**
  - Need to look at HWTS programmes to determine how to achieve behavioural change, not just efficacy of technology
  - M & E data valuable if used to improve programmes and inform policy and investments
- **Use :** Flexible framework to be adapted to local and national efforts
- **Scope :**
  - Focuses on programme outputs and outcomes
  - Does not address strengthening and aligning national level M & E systems but recommends M & E programme implementers understand and link to national regulations, responsible organizations, and reporting systems

CORRECT, CONSISTENT, AND CONTINUED USE

- Emphasizes **3 Cs : Correct, Consistent, Continued Use**



- Does not explain how to measure health benefits achieved through HWTS programmes

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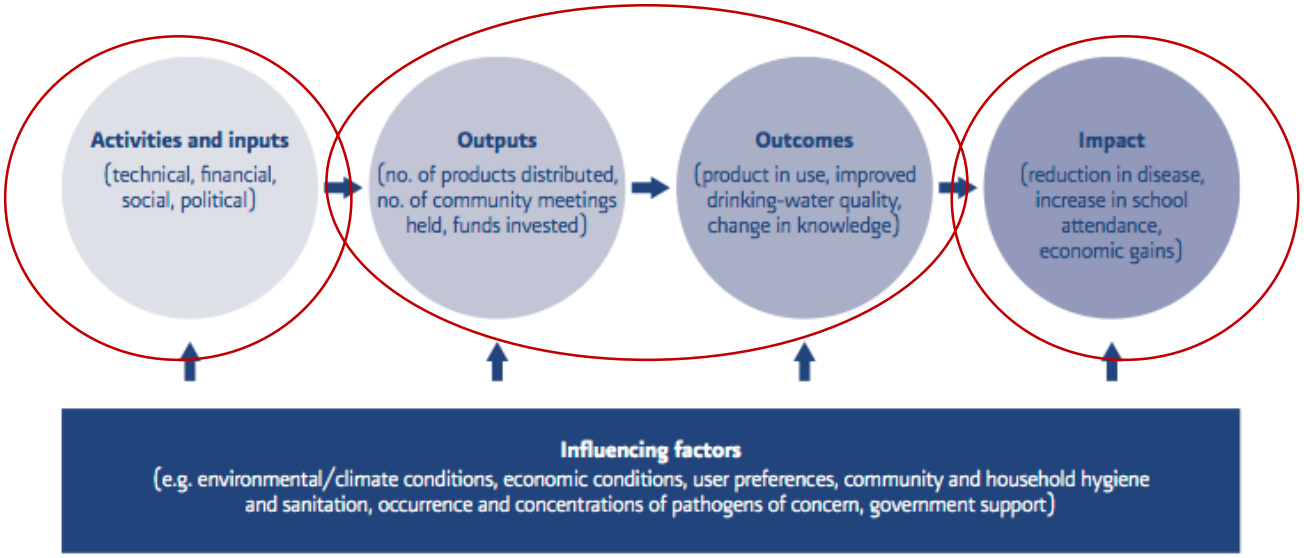
Source: Brown and Clasen 2012

COMPONENTS OF M & E

- **Monitoring** gathers information on progress toward objectives and **evaluation** assesses the extent to which activities are achieving objectives
- **Process monitoring** on programme activities and role of HWTS in meeting objectives
- **Outputs** are immediate consequences of inputs and **outcomes** are immediate consequence of outcome



- Toolkit does not cover impact but the indicators offer guidance for looking at programme outcomes

INDICATORS

- **20 standard indicators** across 5 categories

- Not a final or exhaustive list
  - Other behavioural factors : e.g. user preference
  - Economic indicators
  - Enabling environment : e.g. government support
  - Quality of programme implementation : e.g. frequency and duration of participant interaction
  - Decision tree for resource constraints

REPORTED AND OBSERVED USE

	INDICATOR	QUESTION/REQUEST	ANSWER/OBSERVATION
1	**Self-report treating drinking-water**	*What do you usually do to the water to make it safer to drink? (more than one answer may be possible)*	Nothing Water is already safe Boil Bleach/chlorine Strain through cloth Filter Solar disinfection Stand and settle Other (specify) Do not know
2	**Observation of drinking-water treatment method**	*Ask to see drinking-water treatment method.*	Observe boiled water, fuel source Observe chlorine bottle/tablets, test FCR Observe cloth, and if it appears intact Observe filter, and if it appears intact (i.e. not broken) Observe if bottles are in house/on roof Observe settling containers or sediment Other (if other option listed) None
3	**Self-report safely storing water**	*How do you store your drinking-water? (more than one answer may be possible)*	Do not store water In container with no lid or cover In container with lid but no spigot/tap In container with lid and spigot In narrow-mouthed container Other (specify) Do not know
4	**Observation of safely stored drinking-water**	*Ask to see stored drinking-water. (more than one answer may be possible)*	Completely covered with lid Open, uncovered Narrow opening Spigot Beyond reach of animals Clean (free of dirt, debris, garbage, faecal matter, etc.) Dirty Other (specify)

CORRECT, CONSISTENT USE AND STORAGE

	INDICATOR	QUESTION/REQUEST	ANSWER/OBSERVATION
5	**Knowledge of correct use**	*Please describe how to use this method.*	Dependent on method. For examples of correct use questions, refer to sample questionnaire in **Annex C.**
6	**Demonstration of correct use**	*Please show me how you use this method.*	Dependent on method. For examples of demonstration of correct use questions, refer to sample questionnaire in **Annex C.**
7	**Demonstration of safe water extraction**	*Please show me how you usually extract water from your container. (more than one answer may be possible)*	Observe whether hands touch water Observe whether utensil or tap is clean (no visible dirt and debris) Other
8	**Frequency of non-use by most vulnerable**	*How often do children and/or HIV+ in your household drink untreated water?*	Always, usually, sometimes, never
		IF NOT ALWAYS, where do they report drinking untreated water?	At neighbours'/another house, school, work, religious centre, in fields, when travelling, bar/café, other (specify)
9	**Consistently treating drinking-water with HWTS**	*Have you ever used the HWTS method? In last month? In last week? Always?*	Yes No
		When do you not use?	When there is no money, when there is no time, during the rainy season, during the dry season, never not use, other
10	**Use of improved drinking-water source**	*What is the main source of drinking-water for members of your household?*	Piped connection into house, piped connection into yard, public standpipes, boreholes, protected dug wells, protected springs, rainwater collection, surface water, open dug wells, unprotected springs, vendor-provided water, bottled water, tanker

KNOWLEDGE AND BEHAVIOUR

- Intent : assess uptake and inform efforts on increasing and sustaining HWTS adoption

	INDICATOR	QUESTION/REQUEST	ANSWER/OBSERVATION
11	**Knowledge of at least one proven HWTS method**	*Can you tell me all the ways you know to make your water safer to drink?*	Boiling Chlorination Ceramic filter Slow-sand filter Membrane filter Solar disinfection Coagulant/flocculant Other
12	**Received messaging and/or training on HWTS**	*From what sources did you receive messaging and/or training on your HWTS method?*	Household visit Group training Media (radio, television, newspaper) Mobile phone text messaging From child through school Religious centre None Other
13	**Access to HWTS products**	*Do you know where to buy new parts (or replace broken parts) for your HWTS method?*	Yes, no, don't know
14	**Personal norm for drinking treated water**	*Do you feel a strong personal obligation to consume treated water?*	Yes, somewhat, no, don't know
15	**Confidence in improving the quality of their drinking-water**	*I feel confident that I can correctly improve the quality of my drinking-water.*	Agree, disagree, don't know
16	**Community support in treating drinking-water**	*My friends/community leaders/ health-care workers encourage me to make my water safer to drink.*	Agree, disagree, don't know

OTHER ENVIRONMENTAL HEALTH INTERVENTIONS

- Intent : gauge knowledge and use of other environmental health interventions
- Benefits of improved water quality are greater when HWTS is implemented with other environmental health interventions
- Malawi : hygiene kits during antenatal care led to sustained gain in water treatment and use of antenatal service

	INDICATOR	QUESTION/REQUEST	ANSWER/OBSERVATION
17	**Knowledge of other environmental health interventions**	*Besides HWTS, what are other ways that you know of to improve the health of your household?*	• Insecticide-treated bednets • Improved sanitation • Wash hands at critical moments/handwashing station • Advanced combustion cookstoves • Covering open water sources to prevent vector-borne disease • Exclusive breastfeeding for first 6 months • Consuming nutritionally adequate foods • Hygienic handling of foods
18	**Use of other environmental health interventions**	*Do you use any of these interventions?* *If yes, ask to see intervention.*	Yes No

WATER QUALITY

- **Intent :** assess correct use and prioritize risk and take action
- **Possible parameters :** turbidity, free chlorine residual, *E Coli* and fecal coliforms, arsenic, and fluoride
- **Testing varies by program :** consider budget, stuff capacity, logistics, seasonality of contaminants
- Integrate testing into existing home visit programmes

	INDICATOR	QUESTION/REQUEST	ANSWER/OBSERVATION
19	**Households effectively using HWTS method to improve quality of household drinking-water ("effective use")**	*Can you please provide me a cup of water as you would give to a child? If treated, also collect paired untreated sample.*	Test stored untreated and treated drinking-water pairs for indicator bacteria, report reduction of bacteria.
20	**Households with FCR in drinking-water *[only with chlorine-based methods]***	*Can you please provide me a cup of water as you would give to a child?*	Test stored drinking-water for FCR, report amount or presence/absence of FCR.

EXAMPLE OF NATIONAL SURVEILLANCE

- Drinking water surveillance in Thailand
  - Over 1000 village healthcare workers monitoring fecal coliform and chlorine residual
  - Data goes to subdistrict health centers and local administration offices
  - Results inform government investments : protect source water, improve community drinking water supplies, subsidise HWTS, or a combination
  - Minimize costs by combining testing with home health consultation on nutrition and child health

NATIONAL CONSIDERATIONS

- Incorporate into national data collection or census
- Review M & E of HWTS implementers for compliance with Toolkit indicators and practices
  - Including reviews of behavior change communication programmes to ensure they reflect the 3 Cs
- Aggregate HWTS indicators from implementing organizations to identify trends in HWTS and distribute results
- Recommend and promote the Toolkit
  - Feature Toolkit on government website and WaSH networks
  - Translate portions into local languages
  - Support M & E workshops using the Toolkit

CONCLUSIONS

- How can you integrate and promote the Toolkit?
- How can M & E be tailored to vulnerable groups?
- Share experiences and feedback with the Network

Download the Toolkit at
http://www.who.int/household_water/en/ > **latest publications**