

# Water Safety Plans: Progress and new Opportunities

**Workshop on tools for improving drinking water quality**

**Ministry of Health, Social Services and Equality**

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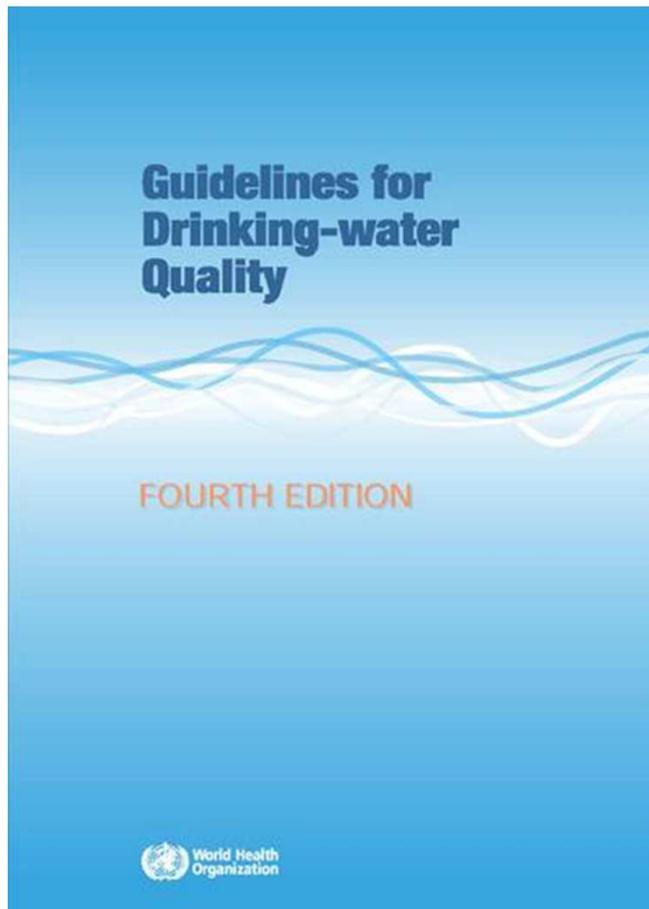
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# Presentation on WSP

1. Concept and rationale
2. Progress
3. Opportunities

# Water quality testing



- “Reliance on water quality determination alone is insufficient to protect public health.”
- “...neither physically nor economically feasible to test for all drinking-water quality parameters...”

# Waterborne disease outbreaks

- Milwaukee, 1993
  - 400,000 infected
  - +/-70 deaths
  - Costs \$96 million
- 33 outbreaks in USA 2009/10 (CDC)
- 354 outbreaks in Europe 2000-2007 (WHO)

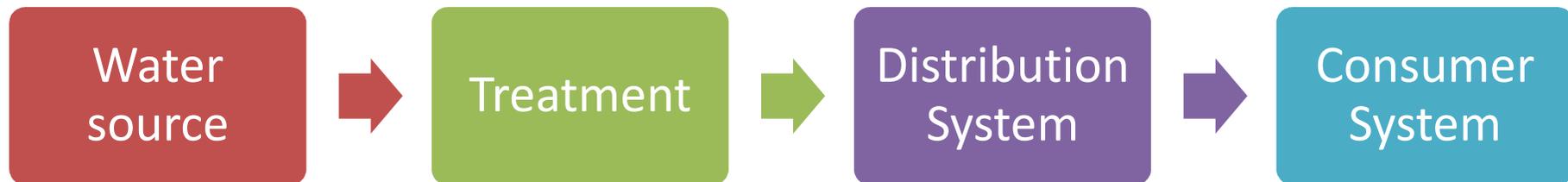


Cryptosporidium (www.sciencepicturecompany.com)

# Water Safety Plan ‘philosophy’

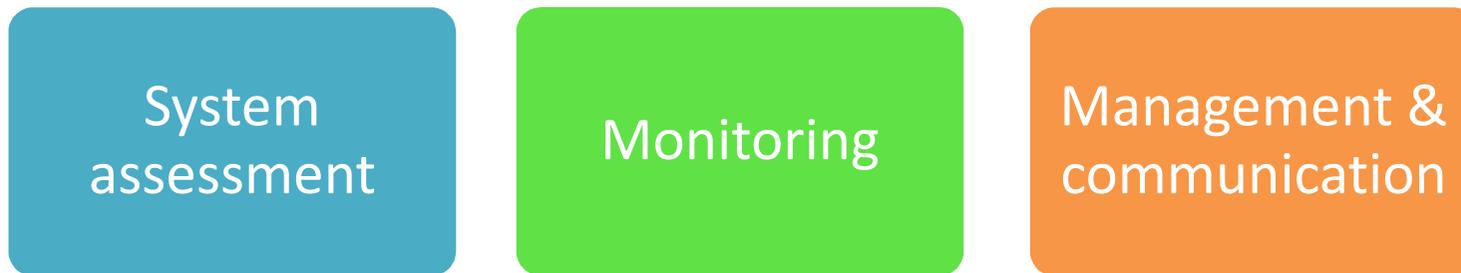
- Prevent contamination, don’t wait for it to happen
- Use multiple barriers so that if one barrier fails the water stays safe
- Use management systems to make water safety management reliable
- Every improvement is worth it and helps improve public health

# From source to mouth



- Identify risks from source to consumer
- Prioritise those risks
- Mitigate risks through control measures

# Water Safety Plan

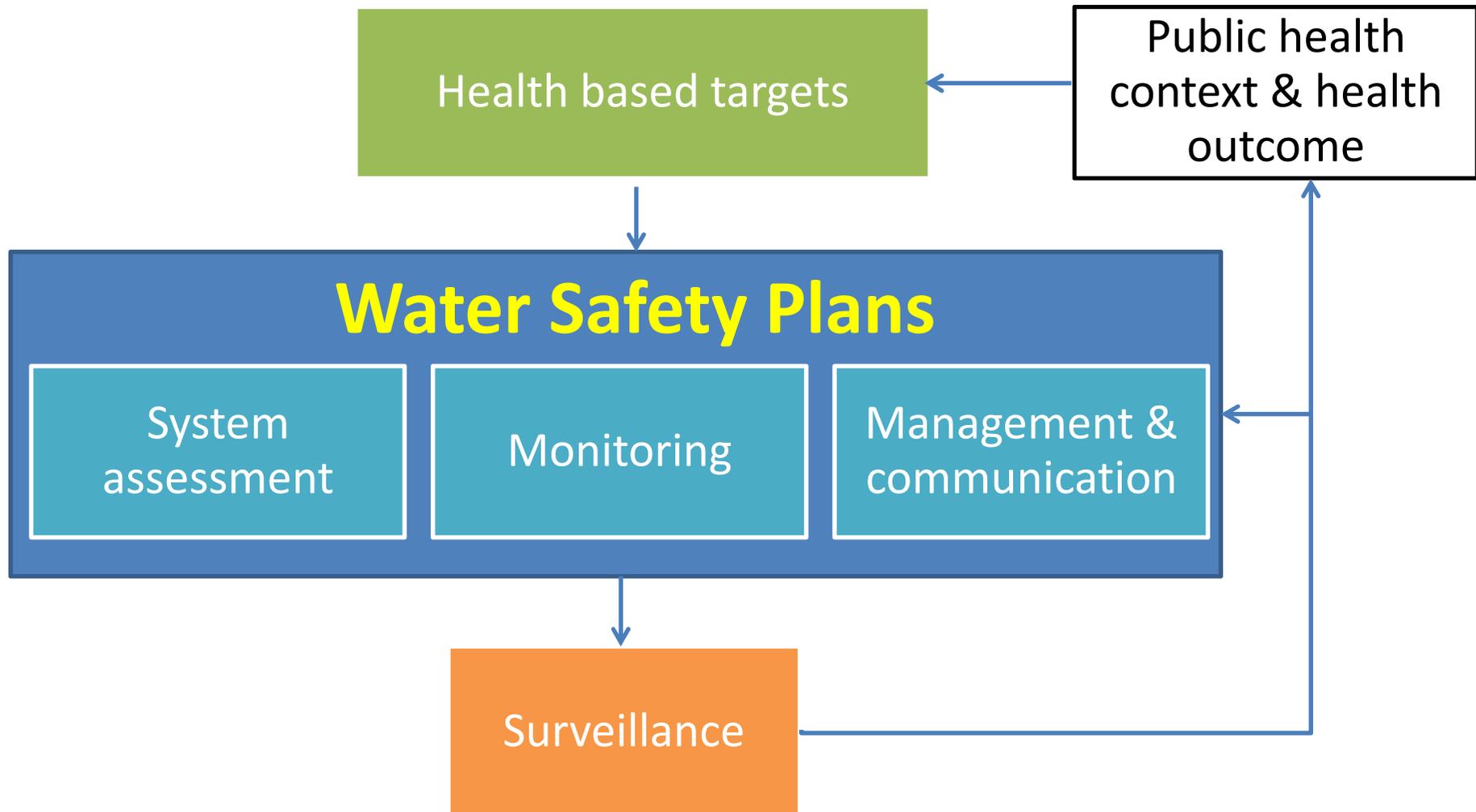


**System assessment:** can the water supply chain deliver safe water?

**Monitoring:** control measures of particular importance in securing water safety

**Management & communication:** actions to be undertaken from normal conditions to extreme events

# Framework for safe drinking-water

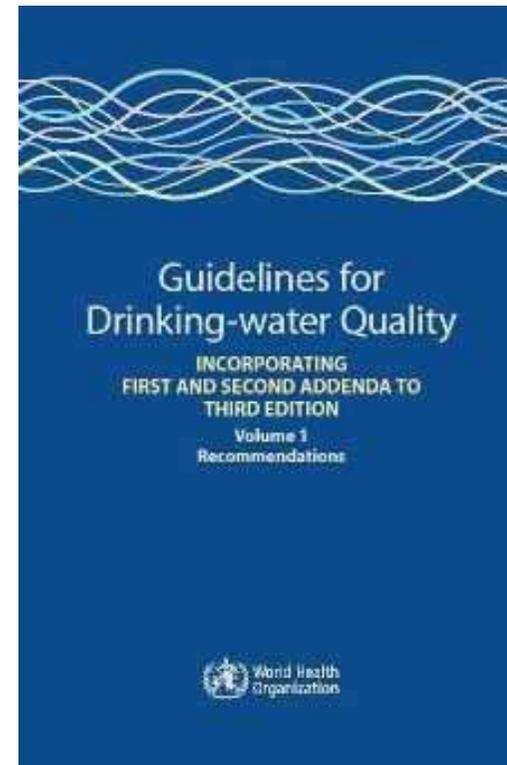


# Advantages of WSP

- Better prevent water-borne disease
- Can be used in resource limited settings
- Empower community and develop management skills
- Identify and prioritise system improvements
- Preventive management for safe water means good O & M → SUSTAINABILITY

# Progress

- GDWQ 3<sup>rd</sup> edition 2004
- Early 'adopters': Australia (2000), Iceland (1995)
- Experience, resources and capacity building
- Advocacy
- Regulation (20+ countries)
- Evidence



# WHO-AusAID WQ Partnership



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World Health Organization



International Water Association

# Water Safety Portal

Login

THINK BIG, START SMALL, SCALE UP



## A ROAD MAP TO SUPPORT COUNTRY-LEVEL IMPLEMENTATION OF WATER SAFETY PLANS



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## Water Safety Planning for Small Community Water Supplies

Step-by-step risk management guidance for drinking-water supplies in small communities



World Health Organization

## Water Safety Plan Manual

Step-by-step risk management for drinking-water suppliers

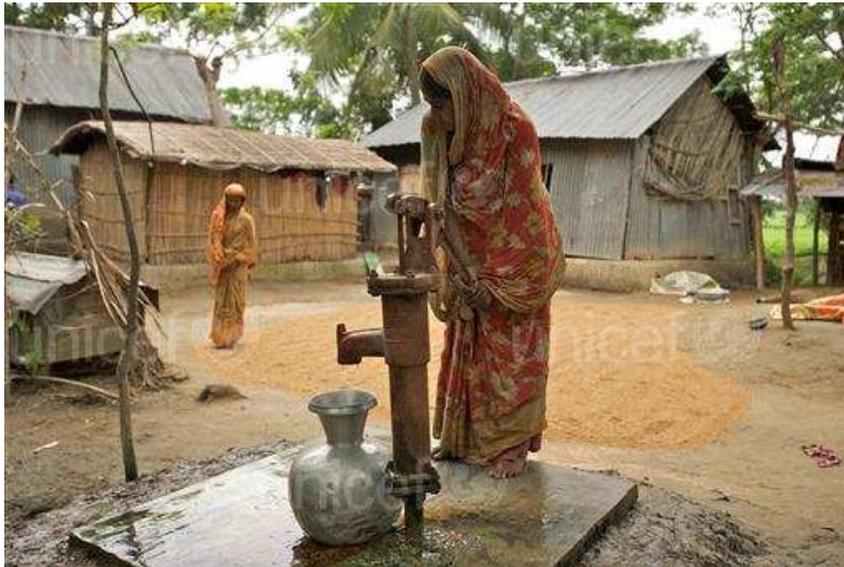


World Health Organization



International Water Association

# Small community water supplies



# Developing the evidence base

## Institutional Change Outcome

- Increased communication and collaboration
- Improved knowledge and attitudes
- Increased training

## Operational Change Outcomes

- Improved system infrastructure
- Implementation of improved procedures

## Financial Change Outcomes

- Cost savings
- Cost recovery
- Increased donor support and investment.

## Policy Change Outcomes

- Informal WSP knowledge sharing and promotion
- WSP model sharing as norms of practice
- WSP formal regulatory requirements.

- WSP impacts?
  - Improved service quality
  - Improved WQ
  - Customer satisfaction
  - Health and socio-economic impact

# New Opportunities

## MDG Target 7C

- Reduce by half the proportion of people without **sustainable** access to **safe** drinking water [& basic sanitation]
- Indicator: use of an **improved** drinking water source

## Post-2015 Target?

- “...access to safely managed drinking water services...”
- Indicator: “...complies with WHO Guideline Values for *E. coli*, As, and F, and is subject to a **verified risk management plan.**”

# JMP Water Quality Task Force

- Household surveys
- WQ surveys
- Regulatory reporting
- Develop a framework for monitoring safety of drinking water to combine:
  - Water quality data; and
  - Indicators of water quality management

# Summary

- WSP can better prevent waterborne disease
- Significant global uptake...
- ...can be applied to large/small water supplies
- International targets and global monitoring will lead to new opportunities