Cleaner, Safer Water through Water Safety Plans

National Center for Environmental Health (NCEH) Global Water, Sanitation, and Hygiene Team's Water Safety Plan Assistance

1.5 million deaths occur globally every year due to a lack of clean water, inadequate sanitation, and improper hygiene (1).

Water Safety Plans

A Water Safety Plan (WSP) is a preventive management approach used to manage threats to a drinking water system—from catchment to consumer. It helps in the

- Management of activities in the watershed to control contamination of source water.
- Removal or inactivation of contaminants during treatment.
- Prevention of recontamination during distribution, storage, and handling.

By improving drinking water quality, WSPs have the potential to increase significantly the proportion of people with access to safe drinking water.

CDC's Water Safety Plan Successes

In addition to providing cleaner, safer water, other WSP successes include increased

- Communication and collaboration among WSP stakeholders and WSP committee, such as the water service provider, regulatory agencies, and entities responsible for health and/or the environment.
- Understanding and knowledge-sharing among different teams within water service providers.
- Training and capacity building for water service provider staff.
- Documentation and development of transferable knowledge for water service provider staff.
- Efficiency, cost savings, and cost reduction for water service providers.
- Establishment of donor support due to positive outcomes from WSPs.

WSP programs have also improved

- Water system infrastructure.
- Systematization of standard operating procedures.

National Center for Environmental Health
Division of Emergency and Environmental Health Services

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CDC's Water Safety Plan Successes

Jamaica:

Members of the WSP Committee unanimously agreed that the WSP process had improved collaboration and productivity among all stakeholders involved. This increase in efficiency paved the way for increased political will in advancing the WSP process, setting in motion a process to incorporate a requirement into the **Jamaican national drinking water regulations** that all water systems develop WSPs.

Guyana:

The WSP Committee agreed that one of the main successes of the WSP process was improved interagency communication and partnerships, especially between the water service provider and the Ministry of Health, which regulates drinking water quality. These partnerships resulted in **improved monitoring of water sources** by the local environmental health units, which in turn helped to **improve drinking water quality** for the town's consumers.

Brazil:

Through collaboration between the water utility and a local university, the WSP process resulted in improvements at the drinking water treatment plant, immediately producing **costs savings for the water service provider**, thereby reinforcing their commitment to the WSP process. The WSP process also facilitated **capacity building** at both the water service provider and university. Twenty six undergraduate and graduate students participated in various parts of the WSP, helping to build a network of engineers able to implement WSPs in other areas of Brazil.

NCEH's Global Water, Sanitation, and Hygiene team provides WSP technical assistance throughout Latin America and the Caribbean. Countries with recent or current WSP projects are

- Brazil
- Bolivia
- Ecuador
- Guyana
- Jamaica
- Peru
- St. Lucia

For more information, visit

- NCEH Global Water, Sanitation, and Hygiene Team at http://www.cdc.gov/nceh/ehs/gwash/wsp.htm
- IWA WSPortal at http://www.wsportal.org
- WHO WSP Portal at http://www.who.int/wsportal/en/

References

1. World Health Organization. 2008. Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health. Geneva: World Health Organization.

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