



# ***A toolkit for costing environmental health services in healthcare facilities***

## **Toolkit overview**

### **Purpose**

To evaluate costs of environmental health services in healthcare facilities

### **Contents**

Eight self-guided modules for planning, assessing facility context, collecting costs data, and disseminating findings. Each module includes instructions, templates, worksheets, and tips for success

### **Scope**

- Includes environmental services for water, sanitation, hygiene, environmental cleaning, and healthcare waste management
- Includes costs for start-up (capital investments) and ongoing operations and maintenance (trainings, consumables, supervision, staff salaries, etc.)

## **Background**

Environmental health services (EHS) in healthcare facilities (HCFs) are essential for safe patient care and prevention of healthcare acquired infections. However, many HCFs in low- and middle-income countries lack adequate EHS. Poor understanding of costs impedes ability to budget for and deliver sustainable services.

We developed a self-guided toolkit for costing water, sanitation, hygiene, environmental cleaning, and healthcare waste management in HCFs in low- and middle-income countries. The toolkit is divided into modules with instructions, worksheets, templates, and tips for success for users to complete the costing process.

## **Toolkit application and outputs**

This toolkit will guide users through planning, collecting, and disseminating data on costs. It is designed for use by diverse stakeholders involved in funding, implementation, and management of EHS in HCFs. No prior costing experience is needed. Completing this toolkit in full will produce the following outputs:

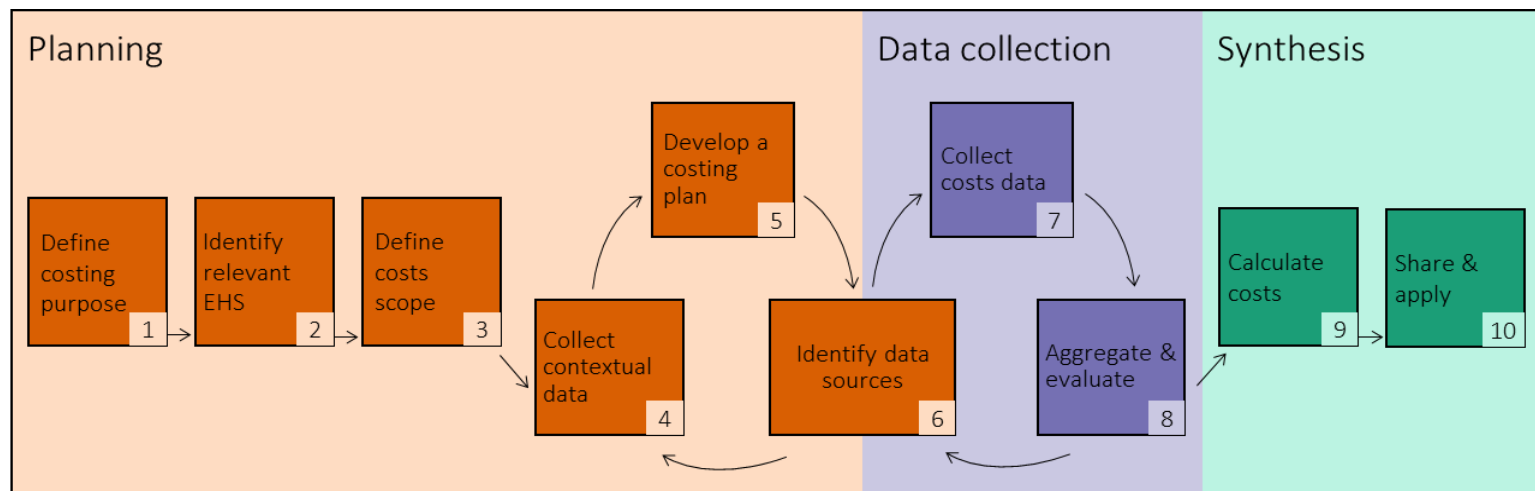
- Data collection plan and documentation of the data collection process
- Contextual assessment on facility characteristics (e.g., facility size, type of services provided)
- Contextual assessment of environmental health services (e.g., number, type, and condition of sanitation facilities)
- Cost spreadsheet detailing line item expenses and associated costs
- Assessment of the completeness, accuracy, and limitations of costs data
- Dissemination plan for distributing and applying costs findings

These outputs may be used for planning and budgeting, for example by assessing the cost of operating existing EHS or predicting costs of installing new EHS. They may also be used for communication and advocacy with funders, policy makers, and others regarding EHS needs within HCFs.

## Overview of the costing process

This toolkit follows a three-phase costing process, as shown below: planning, data collection, and synthesis. During planning, toolkit users define the purpose and scope of costing, assess the facility context, develop a data collection plan, and identify data sources. During data collection, users collect, aggregate, and evaluate the completeness of costs and contextual data on EHS conditions and facility characteristics. In the synthesis phase, users calculate costs and disseminate findings.

This toolkit contains eight modules to guide users through each step of this costing process, with Steps 1-3 combined into a single module.



## Toolkit structure and contents

The toolkit is divided into eight modules, as described at right. Each module contains instructions, discussion guides, surveys, fillable worksheets, and other tools to support data collection.

This toolkit supports bottom-up costing, where total costs are calculated based on the resources used, and the quantities and unit prices of each. The toolkit pairs with a spreadsheet to complete basic cost calculations based on quantities and unit prices. Example data are prefilled in the spreadsheet for sample calculations.

### For more information

#### See associated open-access publications:

- Anderson. 2021. J WaSH Dev 11 (4): 668–675. [A toolkit for costing environmental health services in HCFs.](#)
- Anderson. 2020. IJERPH 17(6), 2075 [A process for budgeting for environmental health in HCFs.](#)

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Module name	Purpose
Introduction	Orient costing-stakeholders and facility administrators to the costing process and toolkit
Module 1: Preliminary planning	Define costing purpose(s); determine relevant environmental health services (EHS) and scope of costs data to be collected
Module 2: Key informant identification	Identify key informants to provide information on costs and facility context
Module 3: Data collection planning	Create a plan for costs data collection, including identifying a data collection approach, location, and data sources
Module 4: Facility context assessment	Document contextual information on facility characteristics (e.g. size, services provided) and environmental health service provision
Module 5: Line item identification	Identify resources used in EHS delivery; resources represent expenses to be costed in subsequent modules
Module 6: Line item completeness evaluation	Evaluate the completeness of line items identified in Module 5 by comparing identified versus expected expenses
Module 7: Cost data collection and calculations	Collect information on the costs of line items identified in Module 5, as total costs and/or as quantities and unit costs
Module 8: Internal review and dissemination	Assess the information collected in previous models for accuracy, completeness, fitness for purpose; develop a dissemination plan