

SURE Rapid Response

A cost analysis tool for Obstetric Fistula Repair

July 2010

This rapid response was prepared by the Uganda country node of the Regional East African Community Health (REACH) Policy Initiative.

Background

A needs assessment conducted by the United Nations Population Fund (UNFPA) and partners in nine African countries, including Uganda, found that obstetric fistula is a common yet frequently neglected complication affecting an estimated 50,000-100,000 mothers annually. Usually resulting from prolonged obstruction during labour, without surgical repair obstetric fistula will often lead to lifelong incontinence and eventual social segregation. The UNFPA needs assessment found that while services for fistula repair were available in these nine countries, the delivery of high-quality care was challenging. The cost of providing services for a fully loaded case may be approximately USD120 at some sites; at others the costs are unknown. Efficiency, accountability, and good planning – including the clear demonstration of funding needs – make knowing such details important.



Who requested this rapid response?

This document was prepared in response to a specific question from a Senior Health policymaker in Uganda.

! This rapid response includes:

- **Summary of research findings**, based on one or more systematic reviews of research on this topic
- **Relevance** for low- and middle-income countries

X Not included:

- Recommendations
- Cost assessments
- Results from qualitative studies
- Examples or detailed descriptions of implementation

What is the SURE Rapid Response Service?

SURE Rapid Responses address the needs of policymakers and managers for research evidence that has been appraised and contextualised in a matter of hours or days, if it is going to be of value to them. The Responses address questions about arrangements for organising, financing and governing health systems, and strategies for implementing changes.

What is SURE?

SURE – Supporting the Use of Research Evidence (SURE) for policy in African health systems – is a collaborative project that builds on and supports the Evidence-Informed Policy Network (**EVIPNet**) in Africa and the Regional East African Community Health (**REACH**) Policy Initiative (see back page). SURE is funded by the European Commission's 7th Framework Programme.

www.evipnet.org/sure

Glossary

of terms used in this report:

www.evipnet.org/sure/rr/glossary

Several tools have been developed to assist in cost analysis processes, including the Cost and Revenue Analysis Tool (CORE), developed by Management Sciences for Health with non-governmental organisations (NGOs) in Guatemala, Mexico, and Tanzania; and the Cost-Analysis Methodology for Clinic-Based Family Planning Methods financed by AVSC International (*Engenderhealth*) developed to help managers set prices for clinical services based on service costs. The Supply-Demand Model of Health Care Financing with an Application to Zaire (Democratic Republic of Congo) has also been developed as a training tool developed by the Economic Development Institute (EDI) of the World Bank, to help organisations explore how the financing of a typical rural health facility, and the demand for its services, would respond to changes in population size, the distribution of the population around health centres, population income, and input costs.

How this Response was prepared

After clarifying the question being asked, we searched for systematic reviews, local or national evidence from Uganda, and other relevant research. The methods used by the SURE Rapid Response Service to find, select and assess research evidence are described here:

www.evipnet.org/sure/rr/methods

This paper presents the tool developed by *Engenderhealth* with the Ministries of Health of Kenya, Tanzania and Uganda. Although purposely developed for clinic-based family planning methods, the tool has been found to be adaptable to all healthcare services. It is a simplified tool that can be used manually or on a computer. The tool focuses on direct costs only, in terms of staff time, commodities, and expendable supplies and medication for a particular service or clinical procedure.

Summary of findings

The cost analysis tool

This cost analysis tool developed by *Engenderhealth* in 2000 requires site administrators and service providers to measure the recurrent direct costs of providing given services. It depends on the cooperation of different cadres of staff who are in direct contact with patients, have knowledge of the costs of supplies and commodities, and understand staff remuneration and benefits, as well as facility overhead costs. It is important that staff with a good working knowledge of medical practice standards are involved. This will ensure that quality services can be both evaluated or planned effectively.

The tool focuses on direct costs only, that is those that are directly related to the provision of specific services (in this instance the treatment of obstetric fistula). The direct costs will normally include:

- The costs of staff time: for many sites these will be fixed because programmes incur these costs regardless of whether the procedure is carried out or not, or how many times it is done. However, the costs will vary according to the cadre of health professional carrying out the procedure or involved in the overall management
- The costs of commodities, expendable supplies and medications. These costs will probably vary according to the number of procedures carried out

The tool does not measure several other factors which should also be addressed. These include:

- Indirect costs (overheads)
- Start up costs, for example, pre-service training. The tool assesses the use of services as part of an already established facility
- The quality of services provided
- Demand for the service and the clients' or users' willingness or ability to pay for the services
- Opportunity costs to the clients and the costs incurred in order to access the service

How to use the tool

Time frame	Activity	Comments
Preparatory stage	Prepare your team and the site team for the tool introduction	<ul style="list-style-type: none"> Communicate with site managers and staff about the purpose of the tool and the analysis in general, and who should be involved in the exercise Set a date for commencing the activities Discuss how these will be integrated into the daily routine in a way that avoids interruptions or staff distractions Discuss which version of the tool to use (computer or manual) and ensure that you have all the necessary material (See Annex 1) Assist the site manager and staff in deciding how to collect the data required. This can be done in various ways, e.g. conducting a client-flow analysis, the observation of clients, staff interviews etc. The timing of other activities, such as cleaning, is also necessary
Day 1 (Morning)	Pay courtesy call, review the purpose of the visit for about an hour	<ul style="list-style-type: none"> Review the purpose of the exercise with site managers and staff involved. Review the types of records needed and the schedule of activities
Day 1 (Morning)	Conduct didactic training with site staff	<ul style="list-style-type: none"> Explain the tool and work through a practical example using Worksheets 1, 2 and 3 (see Annex 2) so that staff are able to gain a better understanding of the process and purpose of the tool. A better understanding is more likely to result in active participation
Day 1 (Afternoon) Day 2 (Morning)	Assist staff to assess costs in wards and departments	<ul style="list-style-type: none"> Help the site to collect the data needed and calculate the cost of services and procedures
Day 2 (Afternoon)	Wrap up, develop action plan with site staff and managers	<ul style="list-style-type: none"> Wrap up at the site and form an action plan together with managers and other staff

Adapted from EngenderHealth

When introducing the tool, the following conditions should be ensured:

- An environment of trust is needed. This is because the process of analysing service delivery can be threatening to site staff. Trust is important to ensure honest analysis and reporting
- The introduction of the tool should be adapted to the context of the site
- The procedure and all related tasks and staff should be appropriate and involve safe medical practice
- The views of clients should be considered when clients pay for services or where there are user fees

Conclusion

This paper has presented a cost analysis tool that uses direct costs to estimate the cost of a given service or procedure. It is a simplified tool that is easy to use by researchers, policymakers, site managers and staff, and students. It is flexible and can be used either on its own or it may be fed into more complex and comprehensive cost analyses for any health service processes.

References

WorldBank; Using Cost and Revenue Analysis Tools. Available from:
<http://info.worldbank.org/etools/docs/library/48391/fpstudy.pdf> Accessed on July 07, 2010.

UNFPA, *EngenderHealth*; Obstetric fistula needs assessment report: Findings from nine African Countries Available from: <http://www.engenderhealth.org/pubs/maternal/fistula-assessment.php> Accessed on June 25, 2010.

EngenderHealth; Cost Analysis Tool: Simplifying Cost Analysis for Managers and Staff of Health Care Services. Available from: http://www.engenderhealth.org/files/pubs/qi/toolbook/cost_analysis_tool.pdf. Accessed on July 25, 2010.

Annexes (Adopted from EngenderHealth)

Annex 1: Materials necessary for each version

Computer version	Manual Version
<ul style="list-style-type: none"> • Microsoft Excel (Windows 1995 or above) • A diskette containing the worksheets (this is provided with the handbook) • A watch to measure the time accurately • The tool handbook • A letter with information about the tool to send to the site administrator 	<ul style="list-style-type: none"> • A calculator, pencils, and erasers • Blank copies of the three worksheets – complete sets are needed for each of the services or procedures to be analysed • A watch to measure the time accurately • The tool handbook • A letter with information about the tool to send to the site administrator

Annex 2: Worksheets

Worksheet 1, Part 1

Worksheet 1			
Calculation of Staff Time for Services or Clinical Procedures			
Part 1: Steps in Service Provision			
Service or clinical Procedure:			
Staff time: Admission, Counselling and Examination			
Location	Activity	Individual responsible	Time
	Tasks or activities required to provide the service or procedure	Type of staff who perform the steps	Number of follow up visits required

*Worksheet One is completed for each client and can be used for each service or clinical procedure

*Some activities or tasks are done per clinic session but affect all clients served during the session e.g. cleaning the room at the end of the day. For these measure the total time taken and divide this figure by the number of clients served to find the average time, and then enter this under the category of staff responsible for the task

Worksheet 1, Part 2

Worksheet 1	
Part 2: Total Amount of Staff Time for a Service or Clinical Procedure	
Staff	Total time

*The computer version automatically adds up the total amount of staff time utilized for different categories of staff. For the manual version, addition has to be done manually from Part one then entered into Part two.

Worksheet 2

Worksheet 2						
Calculation of Cost per Minute of Clinic Staff Time						
A	B	C	D	E	F	G
Staff position	Annual Salary and Fringe benefits	Number of Working Days Per Year	Cost Per Day (B/C)	Number of working Hours Per Day	Number of working Minutes Per day (E x 60)	Cost per minute (D/F)

*Note that information related to salaries and benefits is sensitive and must be kept confidential; care has to be taken to respect this.

Worksheet 3, Part 1

Worksheet 3			
Calculation of Service or Clinical Procedure-Specific costs			
Name of Service or Clinical Procedure: _____			
Part 1: Direct Cost of Staff time			
Staff position	A	B	C
	Time spent	Cost per minute	Total Cost per Client (A x B)

Worksheet 3, Part 2

Worksheet 3				
Part 2: Service or Clinical Procedure-Specific Supplies				
Item	A	B	C	D
	Amount in Unit	Unit Cost	Amount Used per Client	Cost per Client (C/A) x B

*Care has to be taken to make accurate counts or measures of units used.

*It is necessary that both medical staff and staff responsible for purchasing supplies assist in completing this section.

Worksheet 3,* Part 3

Worksheet 3	
Part 3: Total direct Variable Costs	
Total Cost Of Staff Time	
Total Cost Of Supplies	
Total Cost Of Laboratory Tests	
Total Daily Inpatient Costs	
Other	
Total Direct Variable Costs	

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Conflicts of interest

None known.

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This Rapid Response should be cited as

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Regional East African Community
Health Policy Initiative

The **Regional East African Community Health-Policy Initiative (REACH)** links health researchers with policy-makers and other vital research-users. It supports, stimulates and harmonizes evidence-informed policymaking processes in East Africa. There are designated Country Nodes within each of the five EAC Partner States.

www.eac.int/health



The **Evidence-Informed Policy Network (EVIPNet)** promotes the use of health research in policymaking. Focusing on low- and middle-income countries, EVIPNet promotes partnerships at the country level between policymakers, researchers and civil society in order to facilitate policy development and implementation through the use of the best scientific evidence available.

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