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 to100,000 mothers annually. Usually resulting from prolonged obstruction of labor, without surgical repair obstetric fistula will often lead to lifelong incontinence and eventual social segregation. The UNFPA needs assessment further found that there existed fistula repair services in the countries but with challenges to high-quality care. The estimate of the cost of the service in Uganda in different facilities has not been established; for a fully loaded case at different sites it may range from unknown to approximately USD 120. Knowing the cost of services is important for efficiency, accountability, and planning purposes including the clear demonstration of funding needs.

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SURE
Supporting the Use of Research Evidence

REACH
Regional East African Community Health Policy Initiative

EVIPNet
EVIDENCE-INFORMED POLICY NETWORK

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 and these include among others, the Cost and Revenue Analysis Tool (CORE) developed by Management Sciences for Health with non-governmental organizations (NGOs) in Guatemala, Mexico, and Tanzania; 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) which is a training tool developed by the Economic Development Institute (EDI) of the World Bank, to helps organizations explore how the financing of a typical rural health facility and the demand for its services would respond to changes in population size, distribution of the population around the health center, 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* working with the Ministries of Health of Kenya, Tanzania and Uganda. Although purposely developed for clinic-based family planning methods, it has been found to be adaptable to all healthcare services. It is a simplified tool that can be used both manually and with a computer. It focuses on direct costs only, in terms of staff time, commodities, 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 involves site administrators and service providers measuring recurrent direct costs of providing the given services. It requires the cooperation of different cadres of staff who are in direct contact with patients, those with knowledge of costs of supplies and commodities, and those with knowledge of staff remuneration and benefits, and facility overhead costs. It is also important that staff with a good working knowledge of standards of medical practice are involved to ensure that quality services are being evaluated or planned.

The tool focuses on direct costs only. Direct costs are directly related to the provision of specific services, in this case obstetric fistula. They will normally include:

- Cost of staff time-For many sites these will be fixed because the program incurs these costs regardless of the procedure is carried out or not, how many times it is done. However it will vary with the cadre of health professional carrying out the procedure or involved in the overall management.
- Cost of commodities, expendable supplies and medications. Cost of these will probably vary with the number of procedures carried out.

The tool does not measure several factors which must be addressed through other approaches and these include the following;

- Indirect costs (overhead)
- Start up costs; e.g. pre-service training; it assesses use of services as part of an already established facility.
- Quality of services provided
- Demand for the service and the clients' or users' willingness or ability to pay for the services
- Opportunity cost to the clients and 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	• 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 commencement of the activities • Discuss how it will be integrated in the daily activities to avoid interruption or distraction of staff • Discuss which version of the tool to use (computer or manual) and ensure that you have all the necessary material for it (see annex 1). • Assist the site manager and staff in deciding how to collect the data required which can be done in various ways e.g. conducting a client-flow analysis, observation of clients, staff interviews etc. Timing for other activities like cleaning is also necessary.
Day 1 (morning)	Pay courtesy call, review the purpose of the visit for about an hour	• Review purpose of exercise with site managers, staff involved, types of records needed, schedule of activities
Day 1 (morning)	Conduct didactic training with site staff	• Explain the tool and work through a practical example using worksheets one, two and three (see annex 2) for better understanding by staff (When staff

		understand the process and purpose, they are likely to actively participate)
Day 1 (afternoon) Day 2 (morning)	Assist staff to assess costs in wards and departments	• Help the site to collect the needed data and calculate the cost of services and procedures
Day 2 (afternoon)	Wrap up, develop action plan with site staff and managers	• Wrap up at the site and form an action plan with both managers and other staff.

Adopted from EngenderHealth

Before introducing the tool, the following should be ensured:

- An environment of trust is created because the process of analyzing service delivery can be threatening to site staff. Trust is also important if honest analysis and reporting is going to be given.
- Adaptation of the introduction of the tool to the context of the site.
- Ensure that the procedure and all related tasks and staff reflect appropriate and safe medical practices.
- Consider the clients' point of view where clients are involved in paying for services or where user fees may be in play.

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 for use and can be used on its own or to feed into more complex and comprehensive cost analysis for any health service process.

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: Necessary materials for each version

Computer version	**Manual Version**
• Microsoft excel (Windows 1995 or above) • A diskette containing the worksheets (comes with the handbook) • A watch that allows measuring minutes accurately • The tool handbook • A letter with information on the tool to send to the site administrator	• A calculator, pencils, and erasers • Blank copies of the three worksheets-complete sets for each service or procedure that is to be analyzed • A watch that allows for measuring time accurately • The tool handbook • A letter with information on the tool to send to the site administrator

Annex 2: Worksheets

Worksheet One, Part One

Worksheet One Calculation of Staff Time for Services or Clinical Procedures **Part One:** 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 One, Part Two

Worksheet One Part Two: 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 form Part one then entered into Part two.

Worksheet Two

Worksheet Two 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 Three, Part One

Worksheet Three Calculation of Service or Clinical Procedure-Specific costs Name of Service or Clinical Procedure: …….. **Part One:** Direct Cost of Staff time			
Staff position	A	B	C
	Time spent	Cost per minute	Total Cost per Client (A x B)

Work sheet Three, Part Two

Worksheet Three Part Two: 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.

Work Sheet three,* Part Three

Worksheet Three Part Three: 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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