

EVALUATION TOOLKIT: TOOL #2

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# Measuring Household Out-of-Pocket Health Expenditure

CONSIDERATIONS FOR HEALTHCARE  
SOCIAL ENTERPRISES AND  
ORGANIZATIONS IN LOW- AND  
MIDDLE-INCOME COUNTRIES



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## TARGET AUDIENCE

Social enterprises providing healthcare services in low- and middle-income countries (LMICs). Social enterprises are for-profit and not-for-profit private sector businesses with a social mission.



### WHAT THIS TOOL IS

- An introductory primer for social enterprises on how to measure out-of-pocket health expenditures, including common challenges.
- Suggestions for lean data methods to obtain comparison data on out-of-pocket health expenditures in other health facilities.
- A link to resources with more detailed how-to information, including existing survey questions to capture out-of-pocket costs.



### WHAT THIS TOOL IS NOT

- A step-by-step manual on collecting and analyzing data to obtain comparative out-of-pocket expenditure.
- The only resource to use when collecting out-of-pocket health expenditure information.



### WHY USE THIS TOOL

- Communicate better to donors, investors, customers, and stakeholders the comparative cost and/or value of your service with compelling statements.
- Meet growing expectations for enterprises to provide credible evidence supporting claims regarding cost-savings and value propositions.
- Highlight your contribution toward the growing global priority of universal health coverage, including financial protection (as measured by household expenditure) and reported financial health catastrophes.
- Gain benchmark and market clarity for your region or context.



## EXAMPLE IMPACT STATEMENTS BASED ON OUT-OF-POCKET DATA

The average out-of-pocket expenditure per episode of illness **at our facilities is \$1 less than in similar facilities** in our province.

Since initiating a health financing option at our facility two years ago, we've seen a **20% reduction** in self-reported catastrophe expenditure within our patient population.

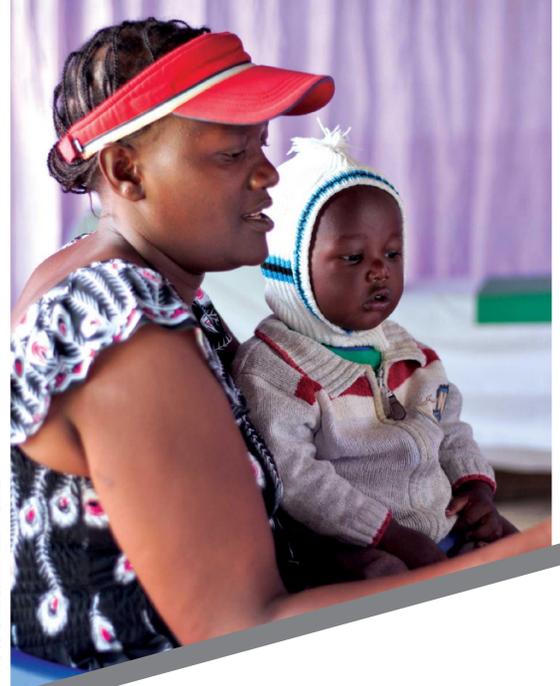
Nationally, half of low-income citizens devote **at least 10% of their income** to out-of-pocket health expenditure. The urban poor presenting at our clinic report an average expenditure of \$3/episode of illness, **lower than both the national and regional average by 20% and 27%, respectively.**

Within our clinic network, the mean total out-of-pocket expenditure was **\$6 for all patients with NCDs** over the course of a year. After initiating pre-payment for services, out-of-pocket expenditure was **reduced by an average of 15% per patient** over the course of a year.

### SAMPLE IMPACT STATEMENT GRAPHIC



Photo c. Jacaranda Health



### SAMPLE IMPACT STATEMENT GRAPHIC

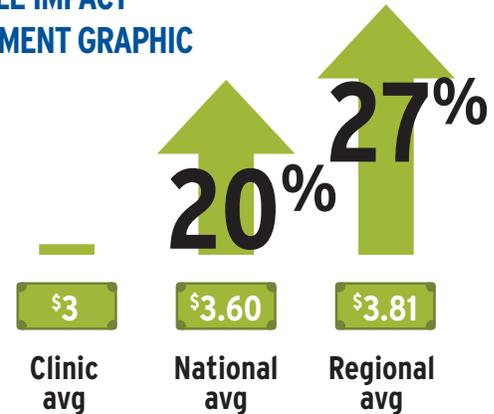
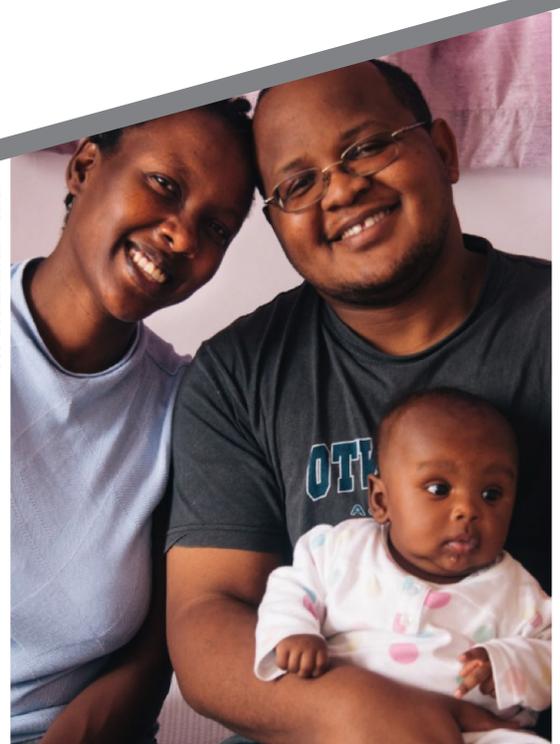


Photo c. Jacaranda Health





## WHY MEASURE HOUSEHOLD OUT-OF-POCKET EXPENDITURE?

*“Out-of-Pocket [health] payments incurred by households [...] are estimated to account for*

**23%** *of total global health expenditure and*

**45%** *of health expenditure in the developing world.”*

Bulletin of the WHO<sup>3</sup>

### A Growing Global Priority

As international agencies, donors, and impact investors prioritize strengthening global health systems and expanding access to health services, financial protection for the poor is a key component for success. USAID’s Vision for Health Systems Strengthening for 2015 – 2019 highlights out-of-pocket (OoP) health expenditure as a key indicator of financial protection, as well as highlighting private sector engagement as necessary for advancing health systems and financing.<sup>1</sup> Achieving universal health coverage, including financial risk protection, is a target of the 3<sup>rd</sup> Sustainable Development Goal of good health and well-being.<sup>2</sup>

### Substantiate claims

Healthcare social enterprises that typically promote themselves as delivering higher-quality services at a lower OoP **need to measure consumer costs, substantiate their impact with credible evidence, and demonstrate how they contribute in a meaningful way toward global health priorities.** Through measuring OoP health expenditure, particularly of the world’s poor and near poor, discernable steps can be made toward improving health financing and protection.

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*“Inefficient out-of-pocket spending on health is a major contributor to impoverishment around the world and demands that we find modern health financing mechanisms.”*

USAID Policy Framework 2011-2015<sup>9</sup>

Photo: NorthStar Alliance, Quintin Mills





## HOW IS OUT-OF-POCKET HEALTH EXPENDITURE TYPICALLY MEASURED?

Out-of-pocket health expenditure includes “any direct outlay by households, including gratuities and in-kind payments [...with] the primary intent [...] to contribute to the restoration or enhancement of health status. This definition can include transport costs [...] and over-the-counter medicines / supplies, but does not include pre-paid fees for health-related taxes or insurance.”<sup>17</sup>

Data on OoP health expenditure is frequently measured at the household-level with either national surveys or research surveys. Many of these surveys are publically available and provide examples of not only what questions are asked to capture OoP expenditure, but also demonstrate the survey structure and complementary questions, such as perceptions on quality of care. A brief selection of questions listed in the *Demographic Health Survey (DHS)*<sup>5,6</sup> and *Bangladesh’s Household Income-Expenditure Survey* are provided in Appendix I as an example.

### OUT-OF-POCKET EXPENDITURE IS FREQUENTLY BROKEN DOWN BY TYPE OF EXPENSES:

MEDICATIONS	CLINICAL TESTS*
PROVIDER FEES	FACILITY FEES
CONTRACEPTION	OTHER+

\* Such as X-rays, ECG, pathological tests, etc.

+ Consider transportation, foregone salary, childcare, informal payments, etc

Photo: NorthStar Alliance; David Childley



*“Cost of accessing quality, essential health services must neither keep people from using these necessary services, nor impoverish them.”*

USAID’s Vision for health Systems Strengthening 2015-2019<sup>1</sup>

# LEAN DATA METHODS SOCIAL ENTERPRISES CAN USE TO MEASURE OUT-OF-POCKET HEALTH EXPENDITURE

## 1. Define and cost the parameters of a clinic visit or treatment of a condition so you can fairly compare your costs to others' costs.

To highlight that your services result in lower OoP expenditure for clients, or similar OoP expenditure for higher quality services, you will first need comprehensive data on the OoP expenditures incurred by your clients. Do not forget to include the full costs. For example, if a client is referred elsewhere for additional clinical services or requires multiple visits to treat an episode of illness, include those costs when calculating their OoP.

## 2. Identify strong comparison data.

Comparisons, whether against national averages, a benchmark indicator, or competing facilities, strengthen OoP expenditure statements and help provide credibility. Potential comparison groups for data collection include other local service providers or you can attempt to collect data from new or existing patients that you serve about their previous OoP expenditure and make 'within client' comparisons. Comparing OoP expenditure at your facility versus public data sources provides a higher-level comparison. Comparing expenditure to nearby or competing facilities can be more compelling and allows for context and additional detail, such as perceived quality of care, to be taken into account.

## 3. Decide how you will collect data from your comparison group.

For more specific information and suggestions, refer to the table on the next page: *Illustrative lean data methods and challenges when gathering cost comparisons from other providers or your patients.*

## FINANCIAL CATASTROPHE<sup>11</sup>

### WHO definition:

Direct OoP payment exceeds 40% of household income minus subsistence needs (as measured by the national median household food expenditure)

### World Bank definition:

OoP payments exceed 10% of the household's total income (i.e., annual earnings from all household members)

### KEY RESOURCE

DHS OoP Health Expenditures Module<sup>5</sup>

#### Use the Module to:

- Create a detailed list of survey questions
- Compare your data to national or regional data

## EXAMPLE OUTPATIENT VS. INPATIENT SURVEY QUESTIONS

### Outpatient

In the last 4 weeks, did you (or your child) receive care from a health provider, a pharmacy or a traditional healer without staying overnight?<sup>5</sup>

### Inpatient

In the last 6 months, were you (or your child) admitted overnight at a health facility?<sup>5</sup>

#### Typical recall periods <sup>3,5,7,9,12,13,14</sup>

Consider using 4 weeks, but expect some forgetting after 3 days.

Use 6 months, and 12 months if necessary, but expect some events to be forgotten.

# ILLUSTRATIVE LEAN DATA METHODS AND CHALLENGES TO CONSIDER WHEN GATHERING COST COMPARISONS FROM OTHER PROVIDERS OR YOUR PATIENTS

## Methods for collecting data \*

### Local service providers

- Select your catchment area and create a list of all clinics within the area
- Select a representative sample of clinics
- Visit sample clinics to collect cost info for comparable services. E.g.,
  - **How much would treatment and services cost for (ILLNESS/INJURY) at this provider?**
  - **How much does (SPECIFIC MEDICINE or TEST) cost at this provider?**
- Outsource the process and hire an external firm to undertake market survey
- Consider relying on networks to identify an appropriate firm for you
- Use mystery clients as a quality improvement or benchmarking exercise, incorporating in OoP costing metrics to obtain costs for comparable services.

*(Note: Use caution when considering any activity that involves deception. Obtain clinic consent in advance.)*

### New/Existing Patients

- Ask clinic patients their experience with similar services from nearby clinics. E.g.,:
  - **Where did you most recently seek care for the same or similar care you are seeking today?**
  - **How long did you have to wait at (OTHER PROVIDER) to be examined?**
- Collect the costs they have/would have paid at nearby clinics for similar services. E.g.,
  - **How much money was spent on treatment and services at (OTHER PROVIDER) for this type of visit?**
  - **What was the total cost of treatment for this illness/injury at (OTHER PROVIDER)?**

#### Interested in measuring catastrophic health payments?

Ask just two questions:

- 1) retrospective payment questions at baseline and at every visit or year, and
- 2) household income

• **In the last 12 months, how much has your household spent on healthcare?**

• **What is your household's annual income (i.e., earnings from each family member)?**

#### Survey patients who represent your target client population.

Do not only survey loyal, repeat patients or those most easily reached.

#### Consider patient recall and sensitive issues.

Patient recall on previous costs for similar services may be a challenge, particularly if the service is rarely sought or specialized.

Are you collecting sensitive information? It can be difficult for patients to discuss sensitive health topics (e.g., sexually transmitted infections), or they may be concerned in sharing OoP expenses, fearing a potential price change depending on their response.

## CHALLENGES

### Selecting a sample

#### Consider what and who you want to study and leverage.

Select representative clinics (similar size, type, services provided) or choose to use a wider representation.

### Errors due to limited recall or non-cooperation

#### Beware inaccurate data.

Avoid comparing apples to oranges that dress like apples. Consider how clinics' prices vary based on package offerings or type of provider seen. Take into account variations.

#### Determine potential for bias.

Make sure you obtain a comprehensive list of expenses. For example, treatment of one illness may include a provider fee, lab fees, transportation costs. Is the facility fully disclosing expenses?

### Seasonal variations

#### Account for seasonal variations when possible.

There are seasonal variations for certain illnesses and when healthcare is sought. Keep this in mind as you choose a timeline for data collection or you may end up with inaccurate information.

### Level of detail

#### Experiment to find the "Just Right" detail level.

The more specialized a question is about household expenditure, the more likely it is that the OoP expenditure will be over-estimated, and vice-versa (less detailed the question, the more likely spending will be under-estimated).

\* Example questions for collecting data derived from the DHS OoP Health Expenditure Module.<sup>6</sup>

## CHALLENGES AND CONSIDERATIONS IN MEASUREMENT

Measuring OoP health expenditure is a challenge across the world, not just for social enterprises. Ways of collecting OoP information are inaccurate or lacking. These challenges are exaggerated in LMICs where OoP expenditure is one of the largest sources of health care financing and healthcare sectors are typically informal.<sup>5,12,15</sup>

Existing literature on OoP expenditure in LMICs focuses on collective and high-level reporting, such as National Health Accounts (NHAs) and catastrophic health events.<sup>6,13,16</sup> However, accurately estimating and tracking these expenses is still a challenge, and as a result, a large source of error in NHAs.<sup>5,6,12</sup>

### POTENTIAL ERRORS

Social enterprises may inadvertently create errors in collecting OoP information.

For example, which patients are selected to answer questions, how questions are asked, and how comparison are made can all lead to potential error.

### SAMPLING ERRORS

Sampling errors occur when the group selected does not represent the larger population of interest.

Consider urban, rural, age, class, race, ethnicity, education, and income differences between your sample and the population.<sup>5,1</sup>

### NON-SAMPLING ERRORS

Non-sampling errors are ways that collected data do not represent the actual situation. Example causes are mistakes during data collection, limited recall, non-cooperation, and using proxy respondents (e.g., a parent responding for a child).<sup>5,15</sup>

## STEPS TO ADDRESS CHALLENGES AND MINIMIZE ERRORS

**1. Ensure survey respondents accurately reflect the population being measured.**

**2. Acknowledge potential errors and be transparent with stakeholders about how the results may be biased.<sup>15</sup>**

A respondent might not remember the event (i.e., limited recall), might be unwilling to share personal financial information, or might not provide accurate responses.

#### EXAMPLES:

- **Price sensitivity.** Consider your patients' concern about discussing prices. They may fear mentioning paying more for the same service elsewhere if they believe you may raise your prices as a result. They may be biased to under-report the cost of services elsewhere.
- **Limited recall.** Would a respondent's ability, or inability, to recall events sway your results in a way that would increase or decrease the OoP expenditure reported? Would it greatly skew results?

**3. Compare your findings with other data sources** (i.e., cross-validate) to better identify errors and understand how they are biasing your results. For example, compare the information you collect with independent and reliable sources such as a recent DHS or other national household surveys.<sup>15</sup>

## OTHER CONSIDERATIONS

- **Use caution in comparing a current visit to a previous visit.**

The previous visit may have involved a different condition, prescribed treatment, and/or price package. Each of these differences complicates directly comparing OoP expenditure between a patient's current visit and a previous visit.

- **Balance the level of detail asked - enough for you, but not so much the respondents over-estimate costs.**

Overall OoP expenditure are likely to be over-estimated by individuals as questions about expenditures are split-out, or asked in a more specialized way.<sup>12</sup>

- **If your OoP costs are higher, determine if it is due to higher quality and document.**

Does your clinic provide higher quality of care in exchange for higher OoP costs? Document perceived differences in quality of services by asking patients questions such as: <sup>5</sup>

- o Why did you choose this clinic today?
- o In your opinion, did this provider today spend less, as much, or more time with you as compared to (other provider)?
- o How long did you have to wait to be examined today? (or record in patient record)



Photo: Russell Watkins/Department for International Development (CC BY-SA 2.0)



## APPENDIX 1: SELECTED SAMPLE SURVEY QUESTIONS

The questions below are a small selection of questions taken verbatim from larger surveys. This enables enterprises to have an exact comparison. However, if you are not looking to compare your data to these surveys, tweak and revise the questions to fit your data needs better.

### Demographic and Health Surveys: Out-of-Pocket Health Expenditures Module<sup>5</sup>

#### Inpatient questions

- In the last six months, was (NAME) admitted overnight to stay at a health facility?
- How much money was spent on treatment and services (NAME) received during the most recent overnight stay? We want to know about all the costs for the stay, including any charges for labor.

#### Outpatient questions

- In the last four weeks, did (NAME) receive care from a health provider, a pharmacy, or a traditional healer without staying overnight?
- The last time (NAME) received care, was any money paid?
- How much money was spent on treatment and services (NAME) received from (NAME OF PROVIDER)? Please include the consulting fee and any expenses for other items including drugs and tests

### 2010 Household Income and Expenditure Survey: Bangladesh Bureau of Statistics<sup>6</sup>

#### Inpatient questions

- How much time did it take to reach the service provider? How long did you have to wait at the provider to be examined?
- Why did you choose this provider?
- In your opinion, did the provider spend enough time with you?
- What was the total cost of treatment during the past 30 days?



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## ABOUT THE EVIDENCE LAB

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