MILK Brief #9: What is "Client Math"?[1]

Why Client Math?

In January 2011, the MILK project conducted a landscape review[2] of existing literature on the value of microinsurance to low-income clients, which revealed significant gaps in understanding. While many studies have explored the impact of microinsurance on clients, these studies have focused primarily on a limited set of products (health and agricultural) and relatively narrow types of impact (utilization of healthcare services, out-of-pocket spending), and may miss the broader role that insurance plays in clients' lives. These studies suggest that microinsurance may provide financial value to clients when they experience large or small shocks, but they don't offer many conclusive answers (see MILK Brief #4[3]).

MILK's "Client Math" methodology aims to address some of these open questions about the value of microinsurance. We seek to understand what financial tools households use to cope with a shock, exploring differences between insured and uninsured households. **Client Math provides a quantitative assessment of the plausible gains to having insurance.** It is not a method to determine impact in a causal sense (i.e., it does not prove that the insured are better or worse off relative to a situation without insurance), but plays a role that is complementary to that of impact studies by answering different questions in different contexts. It aims to describe how both clients and non-clients cope with financial shocks. It offers insight into the ways that insurance is used, and explores the role insurance plays compared to alternative mechanisms as people cope with the financial consequences of a shock.

Client Math is appropriate for…	
Timing	**Mature products** where claims have been paid, because it involves ex-post documentation of responses to shocks.
Objective of study	**Understanding how** insured and uninsured households cope with the financial consequences of a shock (but not proving whether or how insurance *causes* a family to be better or worse off).
Type of shock	Both **low-frequency** events such as natural disasters and death and **high-frequency** events such as outpatient health care.
Audience	**Practitioners**, because it provides clear insights that can help ensure that products are meeting clients' needs and inform modifications where appropriate.
	Policy Makers, because it offers a relatively quick assessment of how a product (and its given characteristics) is being used by its beneficiaries in comparison to alternatives.
	Academics, either on their own or as a complement to a larger-scale impact study, because it employs a rigorous methodology that can work in some contexts and answer some questions that impact studies cannot.
Resources and budget	**Modest budgets and timeframes**, because they require only small sample sizes (approximately 30 insured and 30 uninsured people) and a relatively short time to complete (2-3 months).

How does Client Math work?

Client Math uses detailed surveys to document the responses to similar shocks reported by people who had and did not have insurance. Because they do not involve random assignment of insurance coverage and because they seek out respondents after a financial shock takes place rather than waiting for shocks to happen (as an experimental design would) Client Math studies can provide insight on how insurance is used for low-frequency risks, which are difficult to study with experimental designs.

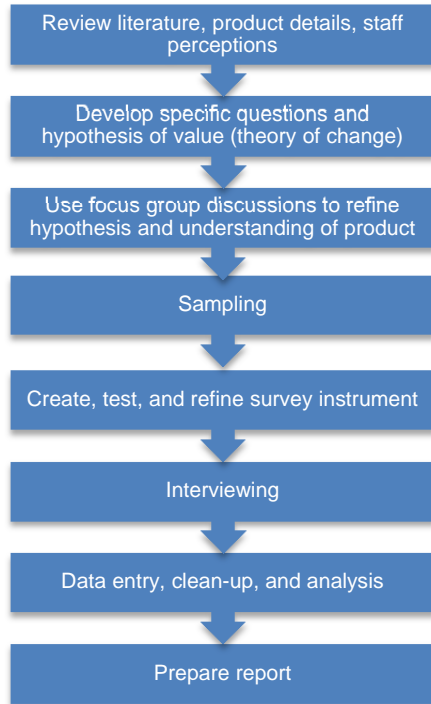[1] By Barbara Magnoni, Michael J. McCord, and Emily Zimmerman (April 2012)

[2] http://www.microinsurancecentre.org/milk-project/milk-docs/doc_details/811-do-clients-get-value-from-microinsurance-a-systematic-review-of-recent-and-current-research.html

[3] http://www.microinsurancecentre.org/milk-project/milk-docs/doc_details/809-milk-brief-4-what-we-know-about-the-financial-value-of-micrionsurance-for-poor-clients-a-snapshot.html

Client Math studies aim to develop an understanding of the full direct and indirect cost of the shock, how that cost was financed by people who had and did not have insurance, and how those with insurance would have coped without it. All Client Math surveys have the same basic structure, but are adapted to fit the context and the product being studied through the research design process outlined below.

Design and Implementation of Client Math Studies

Review literature, product details, staff perceptions

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Develop specific questions and hypothesis of value (theory of change)

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Use focus group discussions to refine hypothesis and understanding of product

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Sampling

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Create, test, and refine survey instrument

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Interviewing

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Data entry, clean-up, and analysis

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Prepare report

Client Math studies can be completed relatively quickly and with modest budgets, but they rely on a carefully refined research design (summarized in the figure at left) and employ a rigorous methodology. Client Math studies begin by articulating the core questions the study seeks to answer and developing a theory of change (a hypothesis of the value of insurance) through an examination of existing literature, product details, and staff interviews. Focus group discussions are used to refine understanding of these questions and develop a survey instrument. We work with the insurer and/or delivery channel to identify the insured and uninsured and randomly select small samples of approximately 30 each from within these groups. These sample sizes are not meant to show statistically significant relationships but to offer a sufficient range of responses to provide an assessment of the plausible gains to having insurance. After testing and refining the instrument, data is collected and analyzed. Reports are drafted with the aim of reaching a broad range of audiences from academics to practitioners and other industry stakeholders.

Where does Client Math fit among methodologies?

Careful research design, and in particular, careful consideration of the questions a study seeks to answer and the most appropriate approach to answering those questions is important to ensure that a study contributes to understanding of value. These issues are discussed in detail in MILK Brief #6[4]. Client Math studies can provide insight into products, questions, and contexts that are difficult to study with impact studies, for example to measure the value of products covering low-frequency risks and to understand how low income people use the broad range of financial tools that may be available to them. At the same time, other questions may be better answered by different research designs.

Where is MILK "doing the math"?

MILK is conducting Client Math studies of products around the world covering inpatient and outpatient health, life, and property microinsurance products.
- Life/funeral: Colombia, Ghana, Mexico, and the Philippines
- Health: Guatemala, India, and Tanzania
- Property: Colombia, Ghana, Haiti, and the Philippines

A Client Math toolkit is being pilot tested and will be available soon to help others replicate the methodology in their studies. We also plan to perform a series of meta-analyses of results across studies in 2013.

[4] http://www.microinsurancecentre.org/milk-project/milk-docs/doc_details/831-milk-brief-6-research-design-for-measuring-the-client-value-of-microinsurance.html