MILK Brief #8:
"Doing the Math" - Cashless Funeral Microinsurance in Colombia[1]

Mapfre / Codensa Funeral Insurance in Colombia

"We don't want to wait twenty years to find whether we are adding value to our customers like the microfinance sector did" Victoria Bejarano de la Torre, President and CEO of MAPFRE Colombia, expressed to us in March 2011 when she first heard of the MILK Project. Our reaction was mixed, "what if we do a Client Math study and conclude that your product doesn't add much value to your clients?" Many people have doubted the value of life microinsurance and we were not sure what we would come up with. Ms. Bejarano smiled and assured us that we should move forward. MAPFRE had sold 350,000 policies over ten years and it was time to do some analysis.

In September 2011 the MILK team partnered with MAPFRE Colombia in Bogota to study how policyholders and non-policyholders of MAPFRE's CODENSA "Seguro Exequial"[2] funeral insurance policy cope financially with the death of a family member. We implemented MILK's Client Math methodology to better understand the financial tools available to and used by those with and without insurance and to conduct a quantitative assessment of the plausible gains to having insurance.

Client Math is not a method to determine impact in a causal sense (i.e. it does not indicate that insured clients are better off or worse off relative to a situation without insurance), but it is designed as a valuable complement to impact studies. The aim is to describe how people cope with financial shocks when they have insurance as well as when they do not, to measure relative magnitudes, and to seek insight into the ways that insurance benefits are used. To do this, we interviewed 41 individuals who received an insurance benefit and 30 who did not. Of the 30 who did not, 13 were relatives of deceased CODENSA policy holders whose insurance claims were rejected. Respondents were visited in their homes, answered a 40-minute questionnaire and were given a small gift for their time[3].

While some existing literature suggests that microinsurance may help protect people from large shocks[4] by reducing out-of-pocket spending (Chankova et al., 2008 and Devadasan et al., 2007) and borrowing (Aggarwal, 2010), we are not aware of any rigorous quantitative studies of the value to low-income buyers of life microinsurance. Life insurance and other products covering low-frequency events are particularly difficult to study using experimental techniques, because they require very large sample sizes and/or long time periods for enough people to have experienced the shock.[5]

Hintz's (2010) qualitative study of a credit-life product that paid off clients' loan balances and provided an additional cash settlement, is one of very few existing studies addressing the value of life microinsurance. It suggests that insurance settlements may crowd out traditional forms of assistance from families and communities, finds that a large portion of insurance claims payments were used to repay other debt, and finds little evidence that the product provided economic relief.

Our study complements this vast gap in the understanding of the role of life microinsurance. It supports some of Hintz's findings, revealing that uninsured respondents borrowed more from friends and family than the insured. However, respondents often noted that their creditors had similar income profiles to them and

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[1] This MILK Brief is written by Barbara Magnoni who leads the client value component of the MILK project, and Derek Poulton.

[2] CODENSA, the largest electric utility in Colombia, sells a variety of MAPFRE insurance plans to customers through door-to-door and telephone marketing, as well as brochures included with electric bills.

[3] For more information on MILK's Client Math methodology, see http://www.microinsurancecentre-milk.com/.

[4] See MILK Brief #4: What we know about the financial value of microinsurance for poor clients: A snapshot.

[5] See MILK Brief #6: Research design for measuring the client value of microinsurance.

that these loans had to be paid back quickly, often before the full cost of the financial shock had been absorbed in the household. The uninsured who borrowed and received gifts from friends and family supplemented these sources of financing with other burdensome strategies including reducing consumption and drawing from savings, when available. The insured were able to use fewer coping mechanisms in smaller amounts, since the MAPFRE insurance covered a large part of their costs. These findings suggest that support from friends and family may be a sub-optimal strategy, and that insurance can be a useful alternative for those who can afford to buy it.

Client Math cannot prove that there is a causal relationship between having insurance and relying less on savings, reduced consumption and borrowing to cover the costs of a funeral. Nevertheless, our study shows that uninsured respondents needed to finance about five times more on average than those with MAPFRE's cashless insurance for the direct and indirect costs of a funeral. The much smaller cash layout of USD 451 for the insured was easier to cover out of income, with some additional belt tightening as compared to over USD 2,190 in funeral-related costs that the uninsured had to raise through a combination of larger loans from family and friends, gifts, belt tightening, and savings.

Insured vs. Uninsured: Who are they and how did they cope with the shock?

Insured respondents were statistically similar to the uninsured, but more had savings. Insured and uninsured respondents were chosen from the same low-income neighborhoods, and generally reported living in similar types of homes and having nearly identical inventories of major assets (vehicles televisions, refrigerators, etc.). Household sizes were also nearly identical, and respondents reported similar levels of education. Both groups concentrated around Socioeconomic Level 2 as defined by the Colombian government.[6] Nonetheless, there were some differences between the two groups. Uninsured respondents' own monthly incomes were 66% lower, and their household incomes were 45% less. Insured respondents were more engaged in formal financial services. More insured respondents than uninsured also cited banks, credit cards, and store credit as affordable options. Though independent means tests on these socio-economic variables showed that differences between the groups were random, except savings balances, this may be due to the small sample sizes.

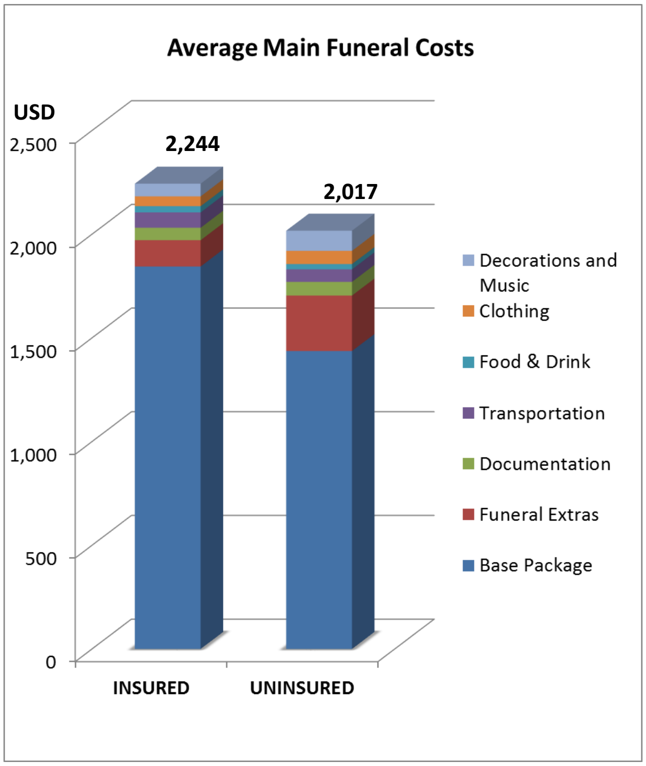
RESPONDENTS' DATA	INSURED n=41	UNINSURED n=30
Age (average)	42.0	39.9
Gender (% women)	56%	60%
Own income (monthly average USD)	$1,077	$363
Household income (monthly avg. USD)	$1,467	$813
Household size (average)	5.1	5.2
Number of children under 18 (average)	1.2	1.7
Have formal loans (%)	59%	50%
Have formal savings (%)	46%	30%
Education (average years)	11.0	11.3
Total direct funeral cost (average USD)	$337	$1,948
Total documentation cost (average USD)	$60	$66
Total respondent lost wages (avg. USD)	$263	$154

Funeral costs were similar between groups but insured clients obtained discounts and support from MAPFRE's services.
MAPFRE's CODENSA "Seguro Exequial" provides a standard funeral package through one of several affiliated funeral homes, as well as the support of a family assistant to help organize the funeral.[7] The basic family package premium costs USD 3.63 per month and covers the primary insured, spouse, and all children under 26 years old.[8]

The average direct costs (with documentation) related to the funeral, including the amount covered by the cashless insurance, were similar for both the insured and uninsured totaling USD 2,244 and USD 2,017 respectively (with a wide range of expenses in both groups).

In the case of insured respondents, the vast majority of funeral services were covered by MAPFRE. Their

[6] The Colombian government identifies all residents in socio-economic strata defined primarily by residential zones in which they live. Strata levels are made available to all residents on public utility bills.
[7] An additional cash benefit of USD 1,950 is offered for accidental death.
[8] Customers can access premium benefits or affiliate other relatives at an incremental cost.



out-of-pocket spending was on average USD 337 for additional funeral services not covered by the package. In most cases these additional costs included extra flowers, music, food and drink. The uninsured paid for smaller funeral packages and were charged for "extras" above their negotiated packages with funeral homes. This is possibly because their packages were less comprehensive than those that MAPFRE negotiated with funeral homes, which included an 18% discount. The insured also saved on indirect costs as a result of MAPFRE's services, which include assistance services, acquisition of required documents, and cover for transportation costs of the body.

The family assistant also helped insured respondents minimize lost wages due to managing various aspects of the funeral arrangements as well as reducing other time intensive activities such as searching for funds and arranging repayments. Due to funeral related activities, insured respondents missed on average six days of work instead of ten days missed by uninsured respondents. The insured spent USD 57 on documentation and related travel compared to the uninsured who spent USD 127. While our study suggests that MAPFRE's product provides value to clients by offering support services and discounts, these benefits do not seem to influence whether respondents are able to obtain a dignified funeral for their loved ones. Both groups were able to pay for a funeral. The primary difference was how this cost was financed.

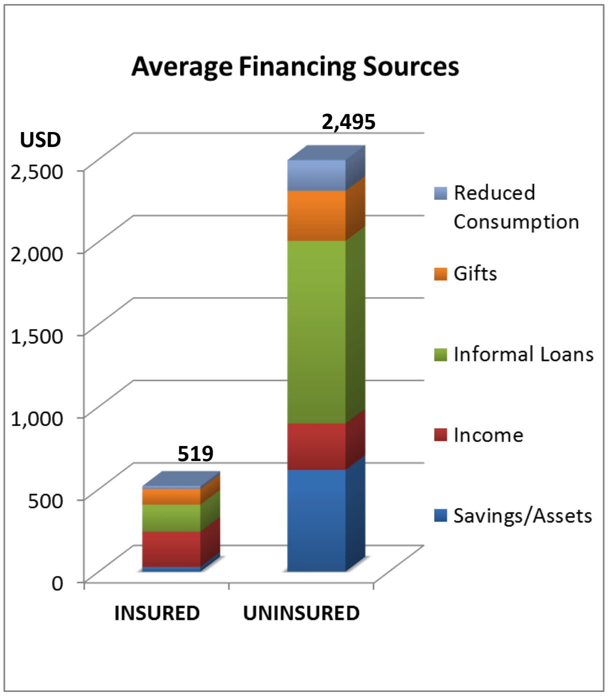
The insured used less burdensome strategies, drawing primarily from friends and family and their own income rather than debt, savings, or belt tightening

On average, our insured respondents financed only USD 519 as compared to USD 2,495 for uninsured respondents.[9] Because the additional funeral costs for insured respondents were relatively low, they were more easily financed with available resources. Most (61%) of insured respondents used their own income to cover costs, and most (63%) also used either gifts or loans from friends and family. In total, these two strategies covered 82% of total funeral costs (35% and 47% respectively). The average loan from friends and family was USD 261. A small remainder of the funding (3%) came from belt tightening (reducing consumption) and only 10% from reduced savings as shown on the Average Financing Sources chart, below.

For uninsured respondents, the burden of the funeral costs appears to be quite large. They were more likely to turn to family loans or gifts, reducing expenses, and using savings. 83% turned to gifts or loans from friends and family, with an average loan size of USD 1,411. Of the uninsured, 60% reduced consumption to finance the funeral.[10] Those uninsured respondents that reduced these expenditures did so by an average of USD 169 more than insured respondents. While belt tightening was a common and probably difficult strategy, it covered relatively little of the overall costs for both groups. Of the uninsured,

[9] These total funeral cost averages differ from the total of average financing sources in the chart, as some families over- or under-financed the funeral.

[10] Reducing consumption is a difficult strategy to address an immediate financial need since spending on basic needs is not a one-time transaction but can take place over a number of days, weeks, and even months. Often reducing consumption is not only a response to the shock itself but to paying back loans that may be used to finance the shock immediately after it occurs. Our respondents typically reduced consumption on food. In fewer cases, we observed reduction in spending on utilities, health and education.



33% drew from savings, when these were available, often depleting their accounts completely.

While respondents in both groups described borrowing from friends and family as easy and inexpensive (most were interest-free), it was not without problems. The uninsured suffered these differences more given that their overall loan sizes were higher. These loans are often very short term (1-4 months), and often repayable before the family could fully adjust to the financial shock. As a result, respondents sometimes had to “churn” various financial strategies to cope even after friends and family stepped in to help.

Family loans are not without a social cost. Most respondents said that relatives who lent to them were about the same socio-economic status as themselves, which explains why they had short or unpredictable repayment terms. Family loans might burden relationships, put undue pressure on the borrower, and heighten the borrower’s sense of obligation, stress and vulnerability. The respondents did not typically consider formal loans a better alternative, however. For both insured and uninsured respondents who had outstanding formal loans, such borrowing to finance the funeral was the least observed choice even though most respondents had access to formal credit.

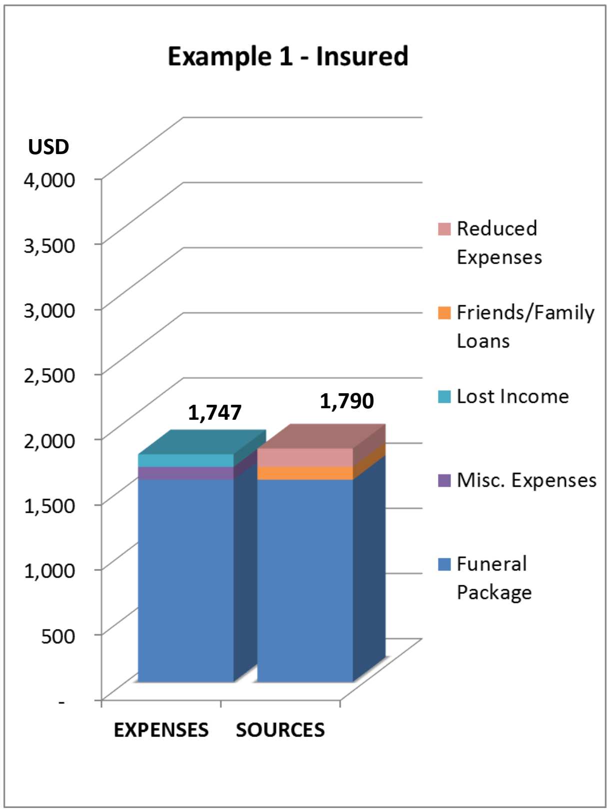
Arguments for savings as a risk coping mechanism suggest that savings could replace or complement insurance to cope with financial shocks. However, our findings suggest a different relationship between savings and insurance. As mentioned above, the insured were more likely to also have savings than the uninsured. The insured also had higher balances, with average savings balances of USD 189 versus only USD 10 for the uninsured. Anecdotally, respondents told us that they did not want to sacrifice hard earned savings to pay for the funeral costs and preferred to cover additional funeral costs from loans or income. Many lower-income uninsured respondents had no choice, however. Of those uninsured respondents who did have formal savings, 56% used those savings, versus just 16% of insured respondents with savings. While savings is often thought a preferred tool for dealing with shocks, these results suggests otherwise. The relatively low savings balances and reluctance to draw on savings for funeral costs suggests that *savings is perhaps something to protect rather than a form of protection*, at least in the case of a funeral shock. Protecting assets is a key function of insurance and it makes sense that purchasers of insurance would see a benefit in protecting their savings as a direct result of insurance coverage.

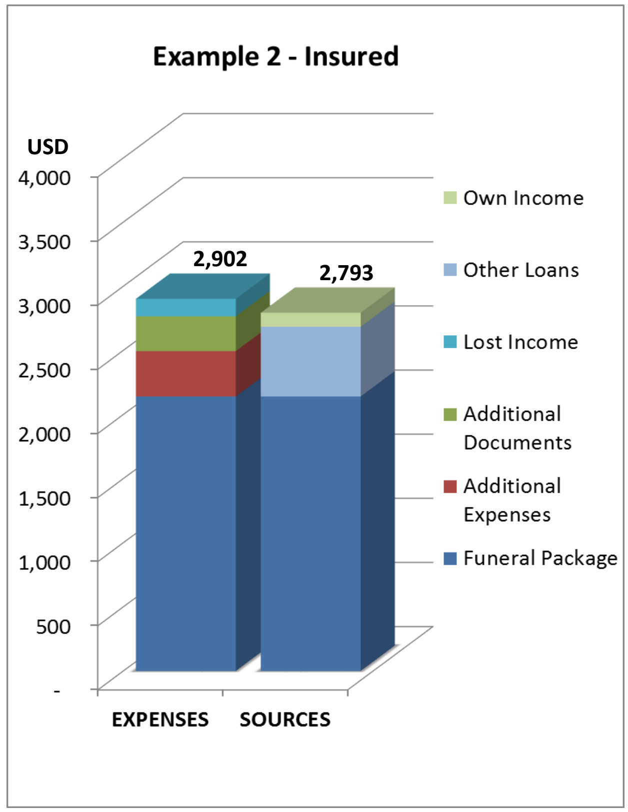
How Clients and Non-Clients Financed the Shock

The data above offers some insight into the overall responses from our interviews. But averages often obscure the nuances that individual stories can offer. Our interviews offer individual stories than can shed further light on some of the behaviors suggested in the tables above.

Our first case **(Example 1, below)** is fairly typical. It takes us to the home of a female respondent who was a sole breadwinner and lived in a rented home with her husband and two children. When her husband died, the MAPFRE funeral insurance covered most of his funeral expenses. She only had an additional USD 100 in miscellaneous expenses, and USD 100 of her own lost income related to the funeral. She financed these expenses through two mechanisms, mainly a loan from her family, which she repaid interest-free within a week, probably with money saved at home. Her remaining expenses were paid by reducing food and education expenses. The total out-of-pocket expenses represented a relatively small portion of the overall funeral costs, and seem to have been manageable.

Our second insured respondent **(Example 2, below)** fared less well, partly because he spent more on the funeral than the woman in our first example. This man was also a sole breadwinner and lives in his own home with his wife. When his mother passed away, she had MAPFRE funeral coverage. He spent more than our first family on the total funeral costs—an additional USD 353 on her funeral as well as USD 272 in documentation. The additional documentation costs, which included travel, were probably because he had to acquire the records from outside of Bogota. To cover these costs, he obtained an interest-free loan from his employer and covered some expenses with his regular income. Nonetheless, he was unable to recover the USD136 of lost income from the shock. Despite the additional outlays, the respondent said he was very satisfied with his mother's insurance, so much so that he bought it for his own immediate family.





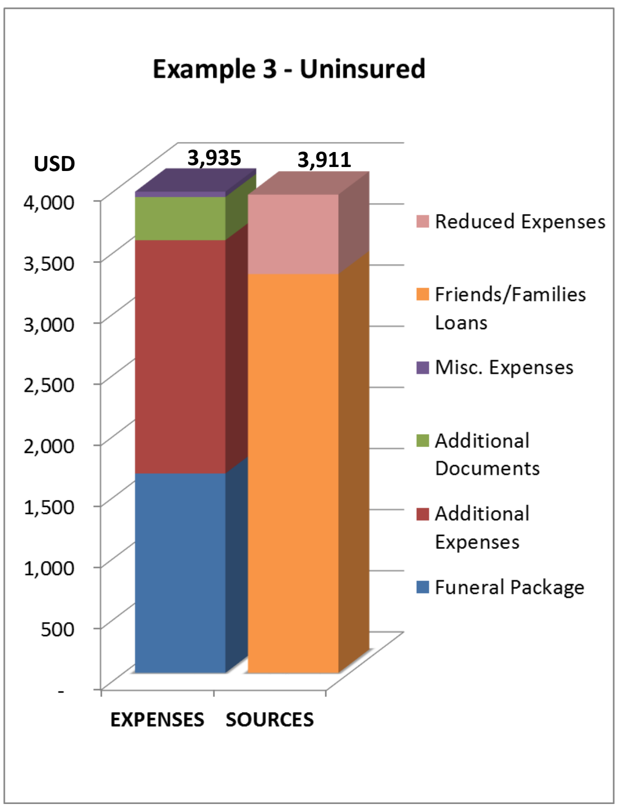
For uninsured families, piecing together coping strategies can be difficult and affects the family's quality of life

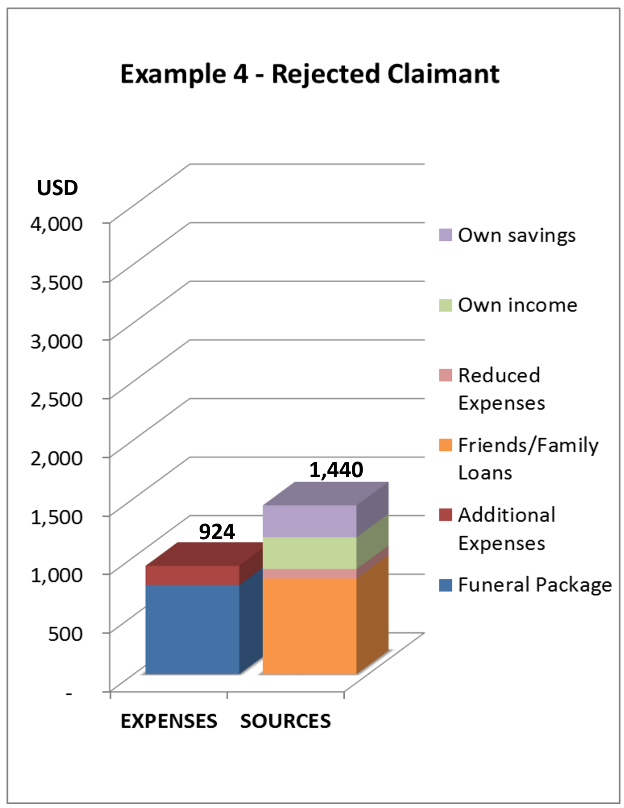
Among uninsured or claim-rejected respondents, two primary patterns stand out—the predominance of family lending and the propensity to cut household spending. One female uninsured respondent (***Example 3*** below) is a homemaker who lost her 81-year-old father. While her funeral home's package cost USD 1,630, she and her family incurred significant additional expenses in the wake room, flowers, transportation, and especially a USD 1,333 vault at the cemetery. In total, her father's death cost her USD 3,935 (See chart below). She had not arranged in advance for a family plot to bury her father, and thus incurred twice the average costs of the insured group, who were able to access a plot from MAPFRE's funeral service. Her situation reaffirms our assumption that MAPFRE's value proposition includes negotiating a fixed discounted funeral service that can help families avoid scams or abuse by funeral service providers offering costly options to already vulnerable low-income families during an especially vulnerable time, when they are focused on grieving for their loss.

To pay for the cost of the funeral, the respondent had no formal savings to rely on and did not have sufficient monthly surplus income (net USD 130 after general household expenses), so she took on a flexible USD 3,261 loan from relatives. As a result, the respondent, her husband, and three children cut expenses on food, health care, and education during the next six months as they continued to cover the cost of the funeral and pay back their loan. When asked what factors are most important when soliciting a loan, she replied “not bothering family and friends.”

Using rejected claimants as a proxy for the uninsured revealed responses to the financial shock that may have been driven by respondents’ initial expectations that they would receive insurance benefits. For example, rejected claimants tended to use savings and income more readily than respondents who were not insured from the start. In ***Example 4***, the respondent was a 42-year-old public sector worker, whose 73 year-old father died within a month of subscribing to the policy. The claim was rejected since the insurance excludes death due to illness during the first 45 days. However, the respondent believed the insurance would be effective within 24 hours of subscription. His responses suggest he had few alternative coping mechanisms available to him. He had never borrowed from friends and family and owed USD 3,600 (about 8.75 times his salary) to formal financial institutions, which he uses regularly. This high level of indebtedness may have limited his ability to borrow more. This is likely the reason for his spending much less than the average of respondents on the funeral, USD 924.

He financed his fathers’ funeral costs through multiple sources to cover a basic funeral package worth USD 761. Initially, he took a four-month interest-free loan of USD 815 from relatives, and paid for additional expenses through his own income, which he boosted by cutting down on groceries that week. Over the next four months, however, as he had to repay his relatives, the respondent drew down all of his reported savings (USD 272) and used another USD 272 of his own income. While loans from his family helped him fill a gap temporarily, he had to come up with multiple strategies to pay for the funeral since the loans were short-term. These strategies appear inefficient, as he had to “churn” strategies, raising USD 1,440 from various sources in order to finance USD 924 in funeral expenses.





Was it worth it?

The MILK Project defines client value as the direct or indirect added value of insurance, in comparison to other available risk coping mechanisms either when claims are made or as a result of owning a policy and trusting that it will be honored. It is comprised of three components: expected value (through behavioral incentives and "peace of mind," even if claims are not made), financial value (when claims are made), and service quality value (externalities created through access to product-related services). In general, customers of MAPFRE's CODENSA funeral insurance were offered a well-priced funeral package that they could count on at a critical time, thus reducing the need to seek alternative financing sources for the majority of their financial needs related to the death of a family member. This speaks strongly to the direct financial value of the product. Our study suggests that there is additional financial value from offering this product on a cashless basis, which reduces the pressure to raise financing quickly for an immediate need.[11] While most of the uninsured had access to alternative financing mechanisms, insured claimants typically avoided "churning" various strategies to finance funerals while some uninsured had no other choice. On average, the insured used 2.3 sources to finance their funeral costs, while the uninsured used 4.2 sources (with a p-value of .0044%, suggesting high significance in the difference). This makes sense since raising USD 2,000 is more difficult than raising USD 500—it usually requires more piecing-together of financing sources, which in turn, represent difficult trade-offs.

MAPFRE's additional services, including assistance with documentation and transportation of the body, appear to not only reduce overall costs for the insured but also offer a needed ***service***, which offers additional value for customers. MAPFRE was able to negotiate a standardized funeral package, providing an 18% discount. The package also reduced the likelihood that the bereaved are misled or defrauded by funeral homes. Clients' own comments about the insurance seem to validate our observations. Almost all CODENSA customers said the funeral insurance was a good buy. When asked, 70% of the insured over-estimated the value of funeral services received by an average 65%. Insured respondents said they not only appreciated the money saved on the funeral, but also the swift delivery of service, coordinated by a MAPFRE assistant. The service from the assistant coupled with the financial benefit also resulted in a significant reduction in lost work compared to the uninsured.

Given the value that MAPFRE's insurance offers, the question remains, why did the uninsured respondents we spoke to not buy insurance if it was a good deal. CODENSA offers life insurance widely and simply to all electricity customers in the areas we visited. Uninsured respondents had likely been offered the insurance but opted out. In our paper *A Microinsurance Puzzle: How do Demand Factors link to Client Value?,*[12] we discuss factors that may link or de-link consumer demand for microinsurance from the value a product may have. Low ability to pay may have been one reason, but does not tell the whole story. Lack of trust rather than a lack of access or affordability was a commonly cited reason for not buying insurance. Only 33% of the uninsured said they would consider purchasing insurance. When we asked the others why not, 10% of them claimed it was too expensive while 74% said it was because they did not trust insurers. This is consistent with Cole et al. (2010), who also found trust to be an important factor of uptake. Using a delivery channel such as a utility company, which primarily communicates to its customers by mail or phone, to offer insurance may have some limitations in terms of building this trust. Efforts to improve information and trust in MAPFRE's product, including offering a better understanding of the product's restrictions and exclusions, may help MAPFRE broaden its outreach and offer still more value from this product. The MILK Project will continue to analyze the issue of affordability, trust and information and their influence on value for microinsurance. In the case of MAPFRE's funeral insurance, we find that while some people end up excluded from the product, it does offer value to its current market niche.

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[11] This could be applicable to products that offer immediate cash reimbursement as well.

[12] See [MILK Brief #7: A Microinsurance Puzzle: How do Demand Factors link to Client Value?]

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Microinsurance Learning and Knowledge (MILK) is a project of the MicroInsurance Centre that is working collaboratively to understand client value and business case in microinsurance. Barbara Magnoni leads the client value effort and Rick Koven leads the effort on the business case. Contact the Project Director Michael J. McCord (mjmccord@microinsurancecentre.org) for more information and visit the MILK Project site at (www.microinsurancecentre.org/milk-project.html).