

Title: "Essays on evaluating a community based health insurance scheme in rural Ethiopia"

## Abstract

Since the late 1990s, in a move away from user fees for health care and with the aim of creating universal access, several low and middle income countries have set up community-based health insurance (CBHI) schemes. Following this approach, in June 2011, with the aim of enhancing access to health care and reducing the burden of out-of-pocket health care expenditure, the Government of Ethiopia rolled out a pilot CBHI scheme. The scheme caters to rural households and urban informal sector workers in 13 districts located in four main regions (*Tigray, Amhara, Oromiya, and SNNP*) of the country. The main aims of this thesis are to assess the factors that drive initial scheme uptake and contract renewal and to identify the impact of CBHI on utilization of care and financial protection. As a prelude to an assessment of these issues, the thesis also provides a systematic review of the literature on CBHI schemes and uses five clinical vignettes to assess the demand for modern health care in rural Ethiopia. The thesis uses data obtained from various sources: three waves of a household panel survey, a health facility survey and qualitative information gathered through focus group discussions and key informant interviews.

Analysis of the responses to the clinical vignettes suggests that the low rates of healthcare utilization in Ethiopia are not linked to lack of awareness of the symptoms of the most common diseases or a low-perceived need for health care but are driven by healthcare costs. The analysis also suggests a clear justification for the introduction of schemes such as the CBHI.

Turning to the scheme itself, as compared to the experience of other African countries, the uptake rate in the Ethiopian CBHI has been remarkable. Within two years of scheme operation, uptake reached 48 percent. At the same time, 82 percent of insured households renewed their subscriptions, and 25 percent of those who had not enrolled in the first year joined the scheme a year later. The empirical analysis shows that the pilot scheme does not exclude households in the lowest socioeconomic status. However, households in the second and third consumption quintiles are less likely to

renew their membership status. This difference is most likely due to the availability of fee waivers and other social support which is available to the poorest households. Membership in a productive safety net programme (PSNP) which targets chronically food insecure households is associated with a 31 percentage point increase in initial enrolment and a 9 percentage point reduction in drop out. PSNP members attended more CBHI meetings before scheme introduction and have greater scheme knowledge and in some cases they have also been coerced to join the scheme.

Unlike the experience of other Sub Saharan African countries, adverse selection is not found to be a serious concern. This is perhaps due to scheme design - while scheme membership is voluntary, enrolment is permitted only at the household level. Furthermore, while accessing health services through the scheme boosts scheme retention and raises concerns about adverse selection there is no evidence that health status differs between those who remain in the scheme and those who have not joined the scheme. Scheme roll-out was preceded by intensive insurance awareness campaigns and the analysis shows that awareness of health insurance and knowledge of the scheme boost scheme retention. The study also finds that, as may be expected, the quality of care on offer influences the decision to join the health insurance scheme.

While concerns about the quality of care and the differential treatment provided to the insured remain, the programme is found to be effective in creating access to health care services. Participation in the scheme is associated with a 30 to 41 percent increase in the incidence of outpatient health care utilization and a 45 to 64 percent increase in the frequency of visits to public providers. While the effect of the scheme on out-of-pocket health care expenditure is unclear, scheme enrolment is associated with more than a 50 percent reduction in the cost per visit to public facilities.

The overall evidence leads to the conclusion that there is a high demand for the scheme and its returns are generally positive. There appear to be three broad sets of factors that contributed to the success of the programme. First, scheme implementation was preceded by a number of steps which perhaps laid the needed ground work. These steps included rapid expansion of health post and health extension services which helped create a preference for modern care and enabled identification of health problems. The roll-out of the insurance was preceded by investments in the quality of health care and an intensive awareness campaign which provided knowledge about the basic principles of health insurance. Second, the premium has been set at a level that is affordable for the bulk of households and there are very few restrictions in terms of the range of health services that are covered. Finally, unlike the situation in a number of other Sub-Saharan African countries, the pilot scheme in Ethiopia is part of existing government structures and scheme performance (at least in terms of uptake and retention) is an element used to measure the performance of the local administration. This clearly provides incentives to implement and support the scheme. It does seem that the Ethiopian CBHI has the potential to meet some of the goals of universal health coverage.