## Impact of Health Insurance in Increasing equity of access: Exploring evidence using Benefit incidence analysis of Health services.

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#### Introduction

There is growing evidence of the effects of health insurance coverage on access to health services in terms of health service use and reducing the burden of out of pocket payments which still constitutes a large share of total health expenditure in many developing countries. However, there is limited evidence as to the effect of health insurance on the distribution of health care benefits within a benefit incidence analysis. This paper examines the effect of two health insurance schemes in Tanzania, the community health fund (CHF) for informal sector and the National Health Insurance Fund (NHIF) for formal sector, on total health care benefits and models the impact of insurance expansion on total benefit incidence and distribution by wealth group.

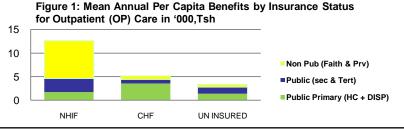
## Methods

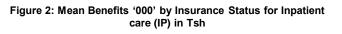
A system wide benefit incidence analysis was conducted including both public and non public providers. Utilization and insurance scheme membership data were taken from a household survey of 12,204 individuals in 2,204 households in six districts, in Tanzania conducted in 2008. Cost data were derived from an analysis of reimbursements and claims from the NHIF. Mean benefits (In Tanzanian shillings) by insurance status were calculated and non parametric (Mann Whitney) test was used to test for statistical significance of the means. The impact of insurance expansion on total benefits and distribution by wealth group was estimated using a simple spreadsheet model.

### Key findings

**Outpatient care**: mean annual public primary care benefits for CHF members was higher compared to NHIF members (p<0.01) and the uninsured (p<0.01). Mean benefits from public secondary and tertiary levels of care and non-public facilities were higher for NHIF members (p<0.01) than other groups (Figure 1).

**Inpatient care:** Mean annual benefits for public primary care was slightly higher for CHF members compared to NHIF (p<0.1) and Uninsured (p<0.01). There was no significant difference between CHF and the uninsured for public outpatient referral care. Mean annual benefits from public referral and regional hospitals were higher for NHIF members compared to CHF members and uninsured (p<0.01) (Figure 2). No significant difference for the annual mean benefits between NHIF, CHF and Uninsured for non-public facilities.

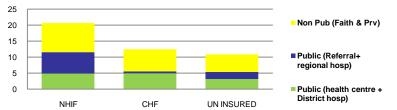




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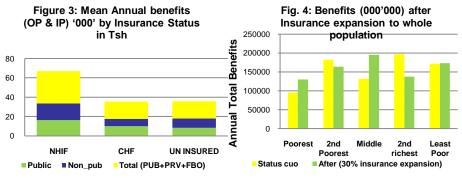
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**Total benefits:** mean total benefits from both public facilities and mean total benefits from non public facilities were higher for NHIF members than CHF members and the uninsured (p<0.01) (Figure 3). Overall mean benefits from all providers combined were significantly higher for NHIF than CHF members and the uninsured (p<0.01).

**Impact of Insurance Expansion on Benefit Incidence:** Figure 4 shows total benefit incidence among insured with current levels of insurance coverage (8.5%) and with expanded insurance coverage (100%). The percentage change in total benefits for the poorest is higher after expansion of insurance coverage compared to the least poor.



#### Conclusion

NHIF members are receiving more services both for OP and IP services, because of their benefit package which covers both outpatient and inpatient care. The modeling results indicate that health insurance expansion increase benefits among the poor. Therefore if the health system goal is to increase health care benefits among the poor, policies and initiatives to increase insurance coverage are urgently needed.

NE: This poster presents the findings of one aspect of research project called SHIELD(Strategies for Health Insurance equity in Less developed countries), website http://heu-uct.org.za/research/projects/shield-project/