



# A COST-BENEFIT ANALYSIS OF USING THE *i*CHT SYSTEM VS PAPER-BASED FORMS BY CHTS



Health Policy Development Program  
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- CHTs play an important role in informing families of their health risks and needs, PhilHealth benefits and responsibilities
- Deployment has been delayed due to lack of resources to reproduce forms and other materials, time-consuming generation of reports
- HPDP developed the **iCHT system** to address this operational bottleneck

## INTRODUCTION

Will the iCHT be more cost-beneficial than using paper-based forms and materials in performing CHT functions?

**RESEARCH QUESTION**

- Determine the potential of the iCHT system to improve the performance of CHT
- Estimate the cost-benefit ratio of the iCHT system versus using paper-based forms and materials in performing CHT functions

## OBJECTIVES

- iCHT system developed, pilot testing conducted in Barangay Tumana, Marikina City
- 60 CHT members (assigned a total of 2,515 families or around 40 each) trained in using iCHT
- 18 CHT members randomly selected, subjected to time and motion analysis

## METHODOLOGY

- Costs estimated in terms of:
  - Training
  - Materials
  - Household visits
  - Data processing and reporting
- Annual cost estimate of using iCHT and paper-based forms calculated and compared; extended to a hypothetical cohort of 10,000 families

## METHODOLOGY

- Cost-benefit ratio of iCHT vs. paper-based approach calculated using the formula:  
$$\frac{\text{cost of using paper-based approach}}{\text{cost of using iCHT system}}$$

METHODOLOGY

- Time spent in engaging families using iCHT was shorter by 15 minutes
- Training cost equal for the two methods at PhP 1,500/CHT member
- Cost of materials for iCHT is lower at PhP 13,460/CHT member (vs. PhP 13,920)
- Data processing and reporting is quicker and less expensive using iCHT at PhP 3,420 (vs. PhP 51,300)

## RESULTS



<b>Cost Parameters</b>	<b>iCHT system</b>	<b>Paper-based approach</b>
<b>Training</b>	63,000	63,000
<b>Materials</b>	807,600	835,200
<b>Household visits</b>	1,231,200	1,641,600
<b>Data processing and reporting</b>	3,420	51,300
<b>Estimated cost for 2,500 families</b>	2,105,220	2,591,100
<b>Estimated cost for 10,000 families</b>	<b>8,420,880</b>	<b>10,364,400</b>

- Using iCHT can save as much as PhP 2M annually for every 10,000 families; may be used to cover 2,500 more families
- CBR—1.23:1

# RESULTS

The iCHT system is beneficial, in terms of lower costs and the lesser time spent in performing CHT-related tasks

**CONCLUSION**

- LGUs to invest in installing the iCHT system as part of CHT deployment
- DOH to help develop additional materials that can be included in the iCHT
- Conduct implementation research on the use of other tablet PC based applications for use in KP/UHC (e.g. electronic medical records, telemedicine)

## RECOMMENDATIONS

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