

CHAMROEUN MICROFINANCE LIMITED

PAT 2011 – Data Analysis

INTRODUCTION

The Poverty Assessment Tool was implemented in Chamroeun Microfinance Limited in October 2007, in order to:

- Appraise the partners' households' poverty level from a general point of view (by providing a grade between 0 and 100, 0 representing extreme poverty and 100 representing people just out of poverty);
- To provide poverty information for each household on six different levels: housing, assets, education, nutrition, health and finance;
- And to evaluate the partners' households' poverty situation evolution in time (by re-administrating the PAT approximately every year).

Note on the methodology

This year's PAT analysis integrates many changes in methodology, which somehow impact the results. The main changes and specificities are as follows:

> 2011 was a transitory year from a system of PAT administration every third loan cycle, as practiced since 2007, to a system of PAT administration every second loan cycle (odd loan cycles), since April 2011. The PAT questionnaire is administered only when a new loan application is submitted. Hence, all the partners already in loan cycle 3 before May 2011 and changing to loan cycle 4 after the system change will "slip through the net" of both PAT 3 and 4 and by consequence jump from PAT 1 to PAT 5. This problem affects a significant amount of households and leads to an analysis on a reduced picture of Chamroeun's active partners.

> For the comparison analysis between loan cycles, we decided to adopt a system where we call PAT1 the first PAT found in the database for a given partner, PAT2 the second, PAT3 the third, regardless of the loan cycle at which the questionnaire was asked because of the change in methodology described above. Moreover, we didn't take into consideration questionnaires over PAT 3, because there are not enough to constitute a meaningful sample.

> For the 2011 analysis, a new dimension was added to the analysis of the score evolution between PAT cycles, by assessing a sample of partners having had several loans (2 or more). An essential advantage of this method is that we can compare the evolution partner by partner, instead of comparing a group of new loaners with another group of reloaners. We also gain increased precision in the results, as we remove all loaners not having a second PAT yet. This method of analysis is now relevant because there are enough partners having several PAT for reaching meaningful results.

However, there are still some minor problems with this method. One of them is that the results are affected by external factors such as economic growth. In fact, most new loaners' questionnaires in the sample are from the years 2007-2009, because most of the new loaners from 2010-2011 have not yet reached a second PAT cycle. Thus, on some results analysis as the ownership of a mobile phone, which is strongly linked to the evolution of the market in the last years, there can be a small distortion of the results.

> Finally, a new section comparing Phnom Penh Branches with Province Branches and Branches to each other was added, taking into account that the provincial branches have been gaining importance in the last years and that the living conditions and also loaning conditions in Phnom Penh and in other cities are not the same.

Contents

- INTRODUCTION 2
- I. POVERTY LEVEL OF THE HOUSEHOLDS..... 4
 - A. AVERAGE TOTAL SCORE 4
 - B. INDICATORS OF POVERTY..... 4
 - COMPOSITION OF HOUSEHOLDS..... 4
 - EDUCATION 5
 - ASSETS 5
 - HOUSING CONDITIONS 6
 - FOOD 7
 - HEALTH..... 7
- II. COMPARISON PP/PROVINCE 8
 - A. GENERAL RESULTS 8
 - B. FACTORS EXPLAINING SCORE DIFFERENCES PP vs. PROVINCE..... 8
- III. DETAILED ANALYSIS PER BRANCH..... 10
 - A. GENERAL RESULTS 10
 - B. COMPARISON BRANCHES 4PSK AND 5PCT WITH BRANCHES 11KPC AND 13KTH 11
- IV. EVOLUTION: COMPARISON BETWEEN PAT1, PAT2, PAT3:..... 13
 - A. GENERAL RESULTS 13
 - B. IMPROVEMENT – DEGRADATION - STAGNATION 13
 - ALL CATEGORIES..... 14
 - GENERAL CATEGORIES..... 14
 - C. DETAILED EVOLUTION 15
 - D. SCORE EVOLUTION.....**Error! Bookmark not defined.**
- V. TABLE LISTING INTERESTING RESULTS 17

I. POVERTY LEVEL OF THE HOUSEHOLDS

This first section focuses on presenting the overall picture of the situations of poverty of the families interviewed by Chamroeun in 2011. The evolutions over time and the differentiation between Phnom Penh and Province are dealt with in other chapters.

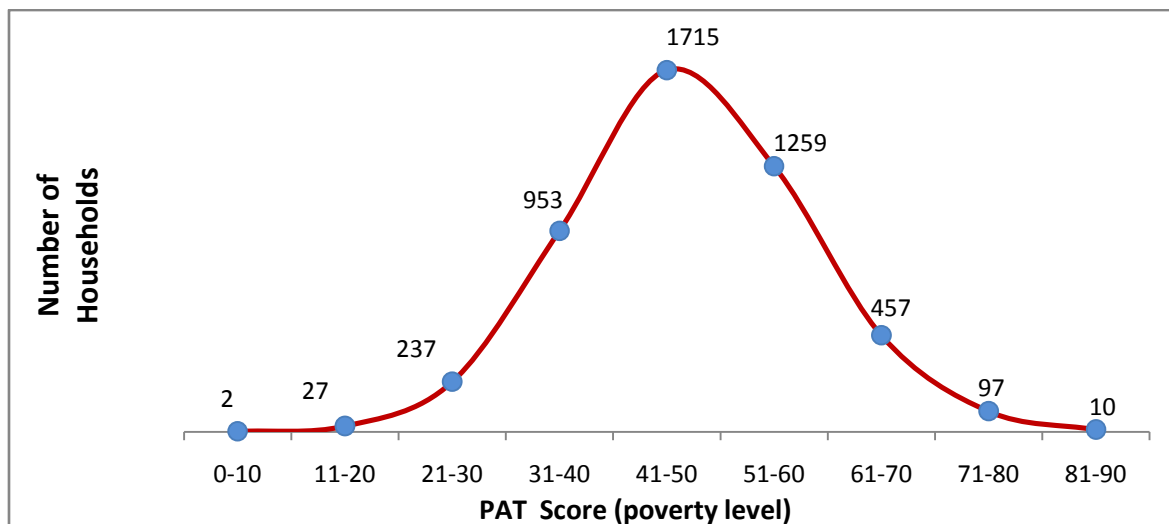
The analysis below is based on PAT questionnaires administered in 2011¹, i.e. 4,757 questionnaires, of which 3,897 are in PAT1, 694 in PAT2 (LC3-LC4) and 133 in PAT3 (LC5-LC6-LC7) and 33 are higher.

A. AVERAGE TOTAL SCORE

The Average score for Chamroeun's partners interviewed in 2011 is 47.59, with a difference of 3.5 points between Phnom Penh and the province. These discrepancies are detailed further in the report, in chapter II.

PP/Province Average score	
PP	48,61
Prov.	45,16
Grand Total	47,59

.The overall scores are spread as follows:



B. INDICATORS OF POVERTY

COMPOSITION OF HOUSEHOLDS

First of all, some figures on the composition of the households interviewed in 2011:

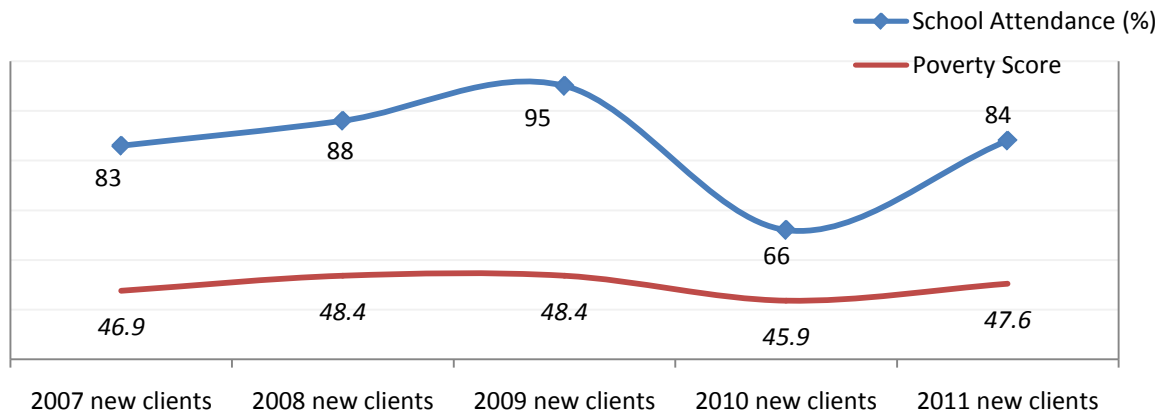
- A household is composed of **4.21 members** on average, close to the previous years.
- The average number of **income sources** per household is **2.57**.

¹For the year 2011, all duplicates have been removed; i.e. all records with same interview date, and name.

EDUCATION

SCHOOL ATTENDANCE OF THE CHILDREN

Official **national statistics on 2008** data state that over **80%** of the children between 6 and 16 attend school. In 2011, in the households interviewed by Chamroeun, approximately **84%**² of children attended school, which is slightly over the national average.



There is a striking drop of the score on school attendance by partners' children in 2010. This decrease coincides with the opening of three branches in the province, **branches 9, 10 and 11**. Those new branches represent one third of all questionnaires in 2010 (3,473 on 10,490).

The score of 2011, becomes "normal" again, at 84% and coincides with a considerable increase of the score in the provincial branches. It is interesting to notice that the opening of the new provincial branches is also coupled with a more general decrease of the average PAT score.

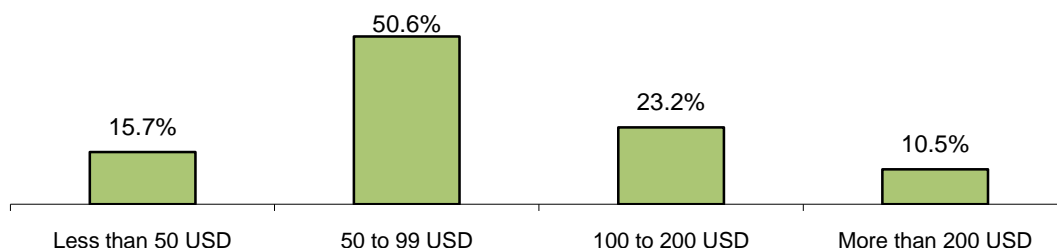
HIGHEST LEVEL OF SCHOOLING

If the number of families no member attended school is relatively low (around 1%), **one fourth of the households never got passed primary school**. **Secondary school** is attended by at least one member of the household in **40%** of the cases. Around one fourth of the answers go to "High School". However, **only 4.7%** of the households have member attending university.

ASSETS

BUSINESS CAPITAL

The business capital of **one half of Chamroeun's partners** is between **50 and 100 USD**, which confirms the small size of the businesses Chamroeun is helping.



²This calculation is relatively precise, considering that for 38.6% of the households, the calculation is not applicable and that we are forced to take a 0.5% attendance rate for the categories "less than 50%" and "more than 50%"

MOTORBIKES

In 2011, **two thirds of the families own at least one motorbike**. There are many more families owning a motorcycle than was the case in previous years, since Chamroeun has been using the PAT. On the contrary, the number of **Motorcycles worth > 500\$** is **lower** than the previous years, with **only 29%** of the households owning one.

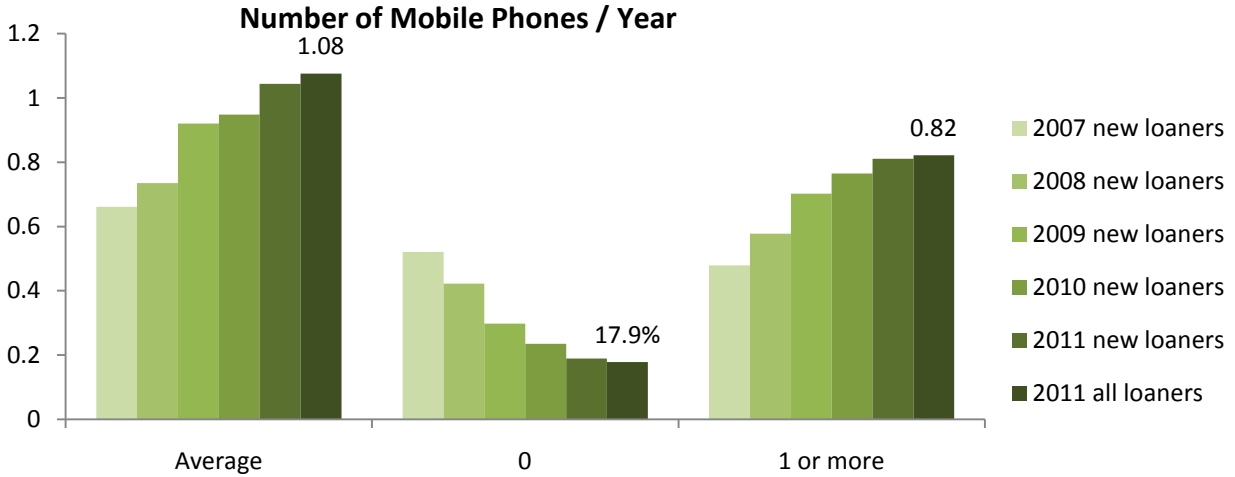
Two factors are most likely to explain this phenomenon: the necessity to have a motorbike nowadays, regardless of the quality, coupled to the development of the second hand market.

MOBILE PHONES

The average number of mobile phones by family in 2011 is **1.08 per family**; only **17.9%** of the households **do not own a mobile phone**.

Looking at the evolution of the number of mobile phones per family *exclusively for new loaners*, we can see a regular increase which reveals the quick development of the mobile phone market in Cambodia in the last years.

If we compare the 2011 results for new loaners with the results for all loaners, the score is a little higher (**1.08 per family for all loaners, 1.04 for new loaners**), which shows there is also a slight impact due to the loans.



HOUSING CONDITIONS

97.6% of Chamroeun's partners have a **solid roof in 2011**. This is significantly higher than the **national average basis of 80%** households with a solid roof, owing to the relatively strong proportion of urban households in Chamroeun's partners. Looking at statistics on the urban population, the results are more contrasted:

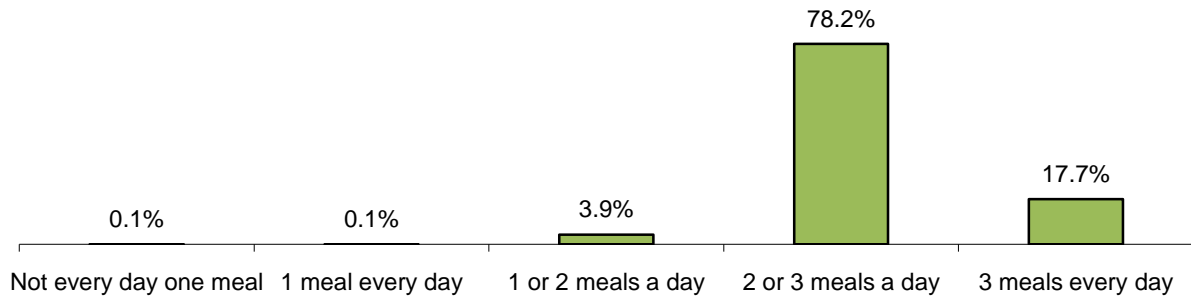
> Slightly under the National Statistics in Phnom Penh, with **92.5% (Chamroeun)** of the partners living under a solid roof (**99% on National Statistics**)

> Slightly above in the provincial cities, with an average of **98.3% (Chamroeun)** against **91% (National Statistics)**

Overall **88.7%** of the households interviewed **own their home**, and are settled in legal areas. Another **5.3%** live for free in a home, **3.3%** rent their accommodation.

FOOD

Considering the regularity of meals, most of the households (78.2%) can afford 2 or 3 meals a day for the family, whereas 4% have 2 meals or less.



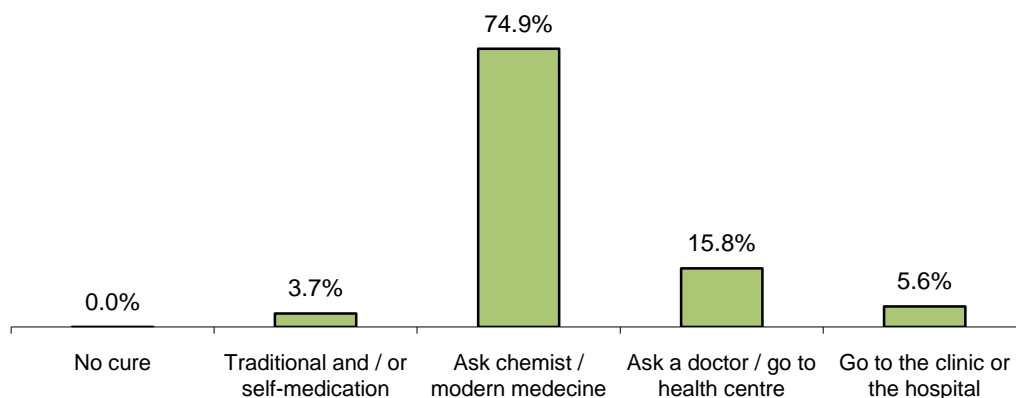
Only one third of the partners usually afford big bags of rice (>50kg). A majority just sometimes have the financial means to buy such big amounts.



HEALTH

PAT 2011

If traditional medicine is clearly losing ground, the recourse to doctors, health centers and hospital is still quit low (only 21.2% of the serious illnesses). The most common use method to cure is to ask a chemist for modern medicine (74.9% of the cases).



Finally, only 2.3% of the partners have health insurance.

II. COMPARISON PHNOM PENH /PROVINCE

In this section, we aim at showing disparities between the branches in provincial cities and branches in Phnom Penh, to give additional insight in the overall figures.

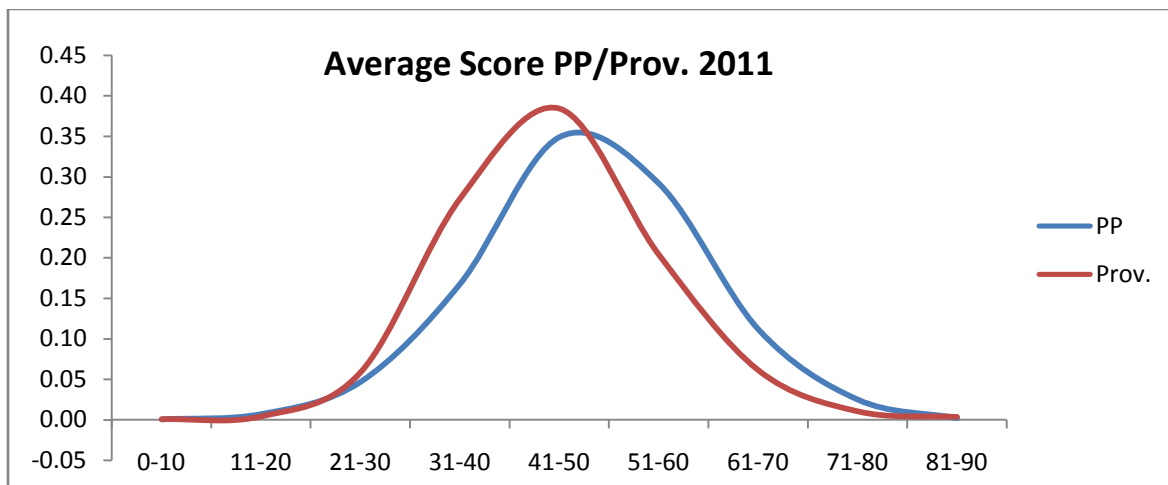
A. GENERAL RESULTS

There have been **2.37 times more questionnaires** administered in Phnom Penh than in the province for a general result of:

Average score		PP/Province	Count of Questionnaires
PP	48.61	PP	3,327
Prov.	45.16	Prov.	1,430
Grand Total	47.59	Grand Total	4,757

The **score difference** between Phnom Penh and the Province is around **3.5 points**, which is quite significant.

The following Chart shows the spread of the scores, between Phnom Penh and the province.

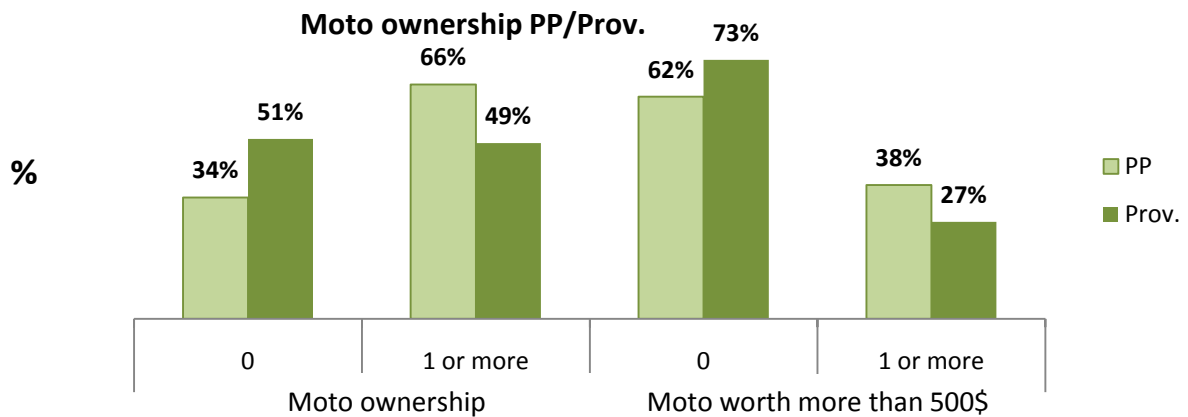
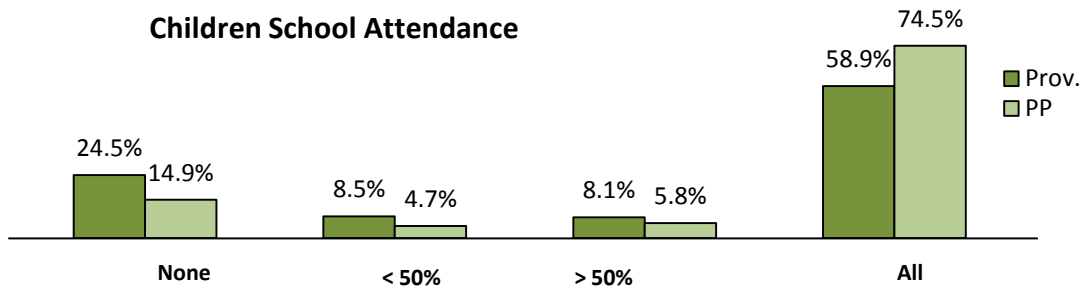
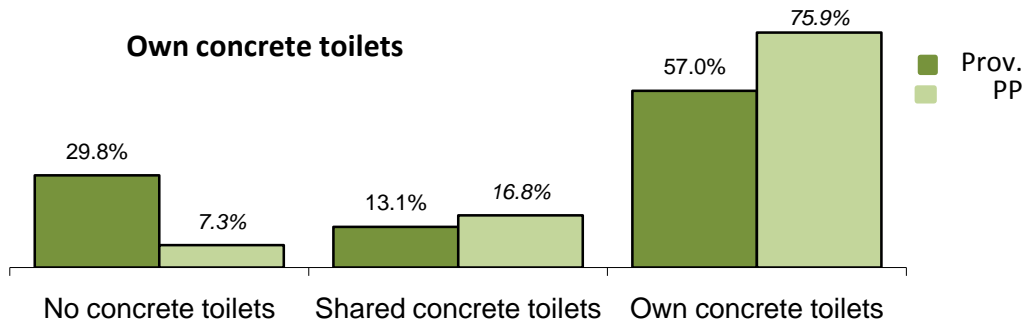


In order to shed light on these contrasted results, we have tried to identify which are the factors that play the most significant part in these differences on the overall score.

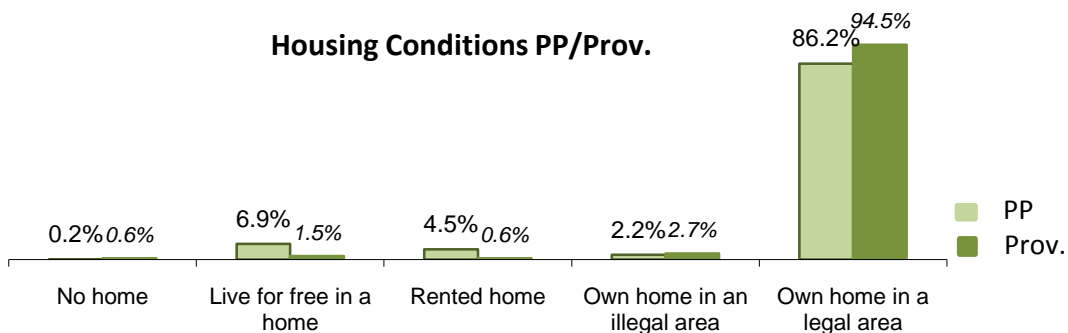
B. FACTORS EXPLAINING SCORE DIFFERENCES PP vs. PROVINCE

Below are the questions on which the answers from partners in Phnom Penh were significantly different to those from partners living in the provincial cities.

In most cases, Phnom Penh households had higher scores than those in the province, and this includes the following:



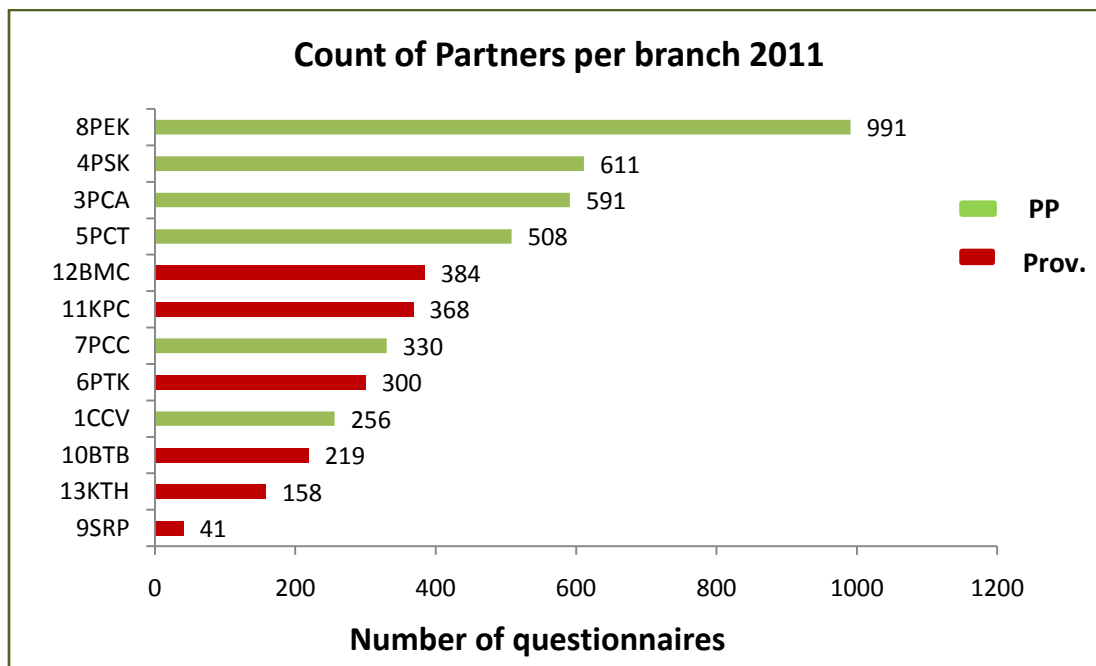
It is interesting to notice that all factors are slightly higher in Phnom Penh **except for the housing conditions**. However, this is quite logical considering that the cost of accommodation is higher in Phnom Penh.



III. DETAILED ANALYSIS PER BRANCH

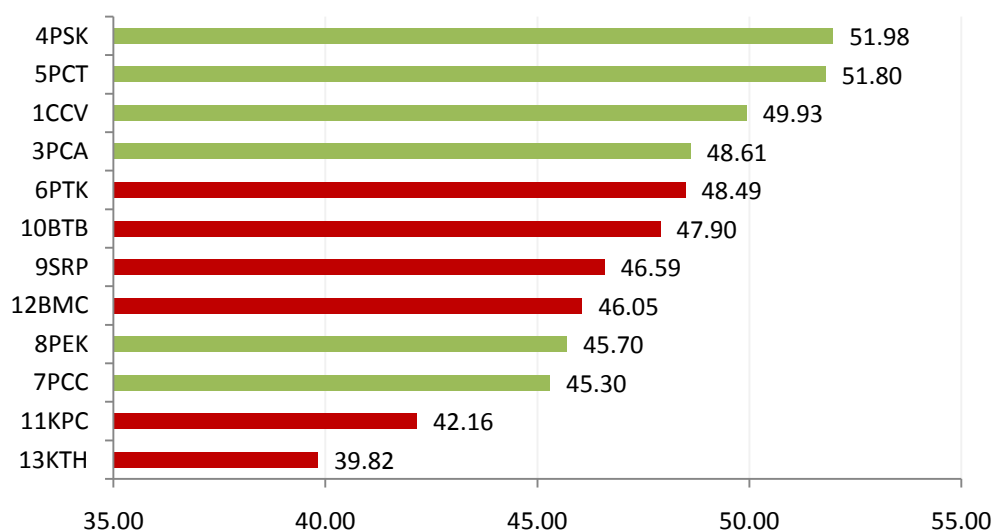
This section has been newly introduced in the 2011 analysis in order to compare Chamroeun's branches and try to identify the main differences between branches.

A. GENERAL RESULTS



The four branches with the highest score on PAT 2011 are Phnom Penh branches (4PSK, 5PCT, 1CCV, 3PCA). Two provincial branches are lagging behind: 13KTH in Kampong Thom and 11KPC in Kampong Cham. Those two regions belong to the poorest in Cambodia.

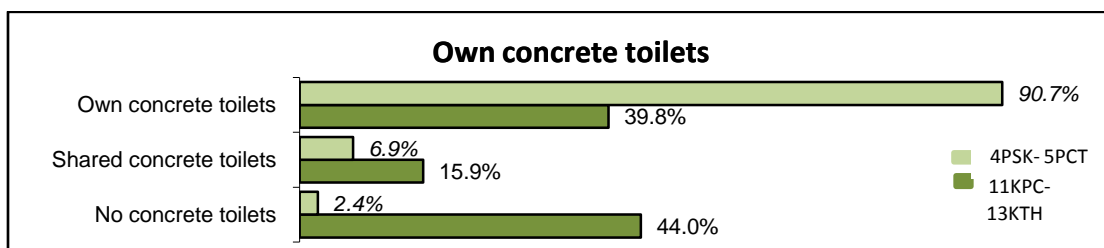
Average score per Branch 2011



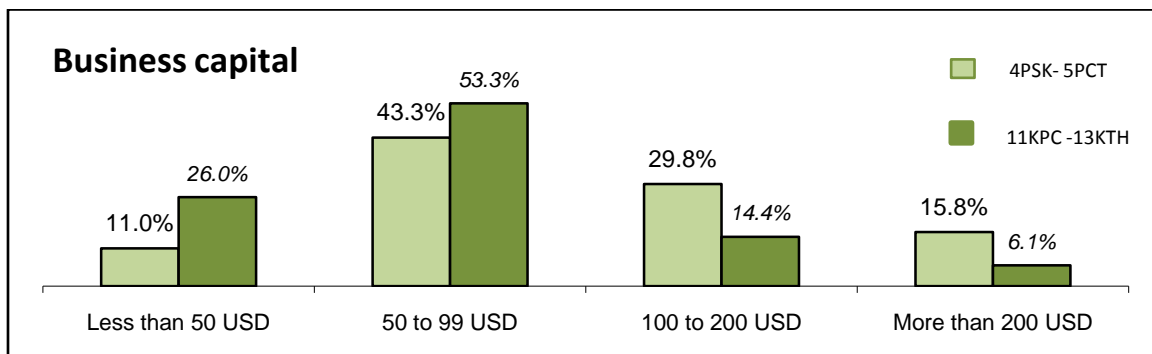
B. COMPARISON BETWEEN 'TOP' BRANCHES AND 'LOWEST' BRANCHES

The 4PSK and 5PCT branches, totaling 1,119 questionnaires in 2011, are the branches with the highest average scores. In contrary, the 11KPC and 13KTH agencies, gathering 526 questionnaires, have the lowest average scores of Chamroeun's branches. The aim of the comparison of those branches is to find out which criteria influence the large gap between the best and worst agencies of Chamroeun (more than 10 points).

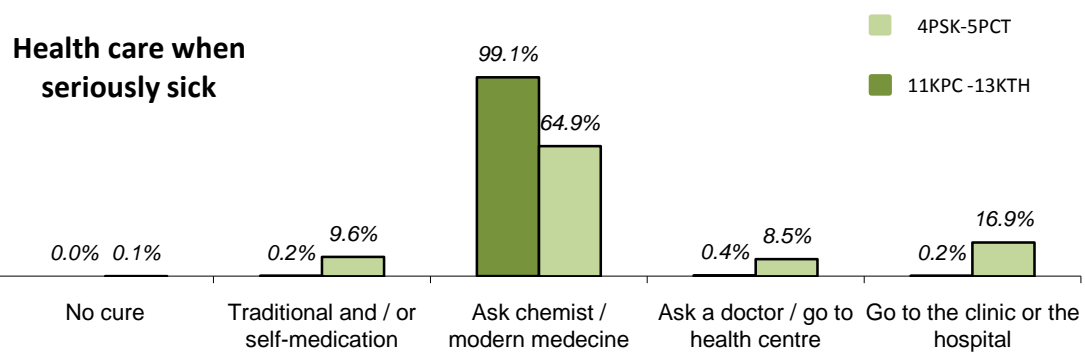
It appears that many criteria vary significantly between the best and worst branches. The followings are the most significant:



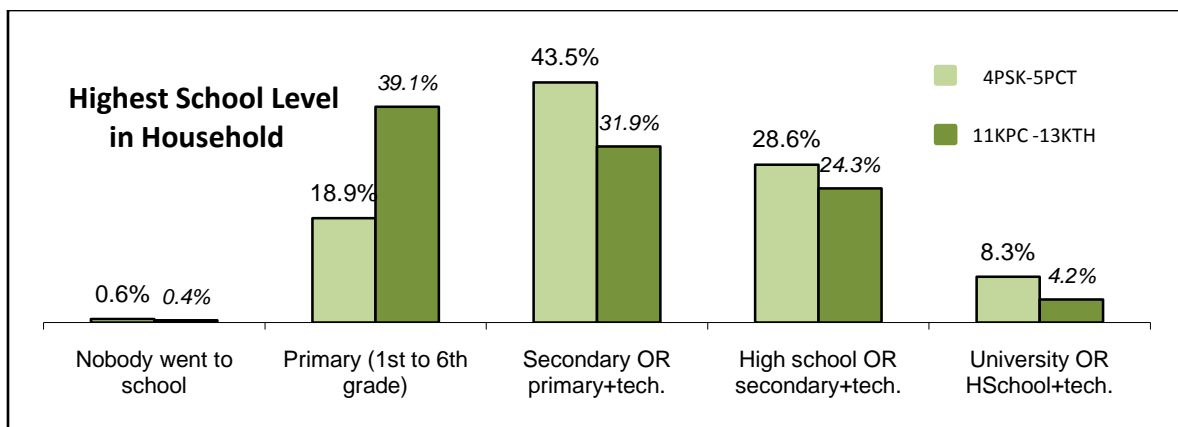
More than **90%** of the partners from the branches 4 and 5 **own individual concrete toilets**, whereas 44% of the branches 11 and 13 partners have **no concrete toilets**.



The difference of business size is maybe the most evident difference between the wealthiest and poorest branches of Chamroeun. Indeed, **more than 45% of the partners** of branches 4 and 5 have a **business capital over 100 USD**, against **only 20% of the partners** in branches 11 and 13.



One fourth of the partners in branches 4 and 5 **ask a doctor or go to a health center or hospital** to get cured when seriously sick, against **0.6%** of the partners in branches 11 and 13, where almost all partners just ask a chemist for medicine.



An interesting result also concerns the highest level of education in the households. For almost **37% of the partners in branches 4 and 5**, it is **High school or University**, against **28,5% for the partners in branches 11 and 13**. Moreover, only **19.5%** of the households in branches 4 and 5 have **no single member of the household who reached secondary school**, against **almost 40%** in branches 11 and 13.

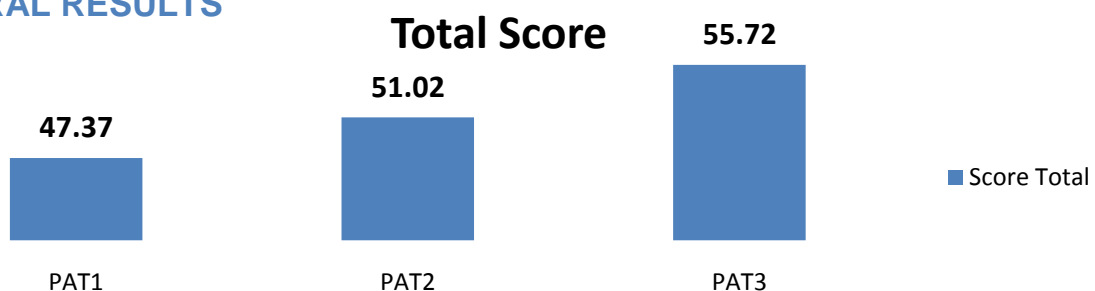
IV. EVOLUTION: COMPARISON BETWEEN PAT1, PAT2, PAT3:

This section aims to identify the indicators that evolve the most according to the number of loans partners receive with Chamroeun.

This analysis is based on 3,110 PATs of 1,521 partners. The questionnaires are divided into: 1,430 questionnaires in PAT1³, 1,426 questionnaires in PAT2 and 254 questionnaires in PAT3.

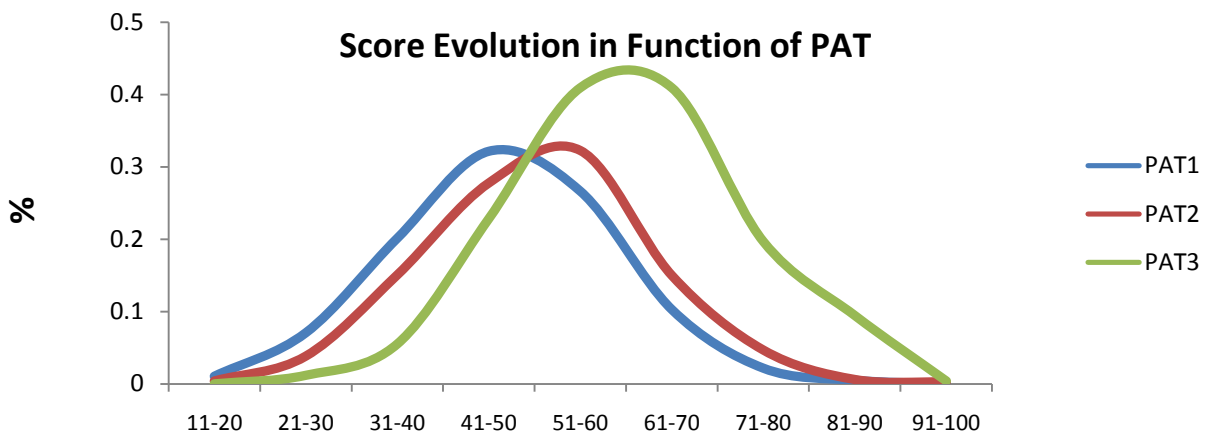
Please note that these figures represent the same group of partners who have moved from PAT1 to PAT2 and PAT3. Partners having just one PAT will not enter the analysis. This is an improvement in comparison to the previous years, where all PAT forms were taken into account; it was not the same sample whose progression was followed over time. It shows to what extent partners having had several loans in the course of time have seen their situation evolve.

A. GENERAL RESULTS



The score increase between PAT1, PAT2 and PAT3 is considerable (around 4 points per cycle).

The spread in scores is shown below:



B. IMPROVEMENT – DEGRADATION - STAGNATION

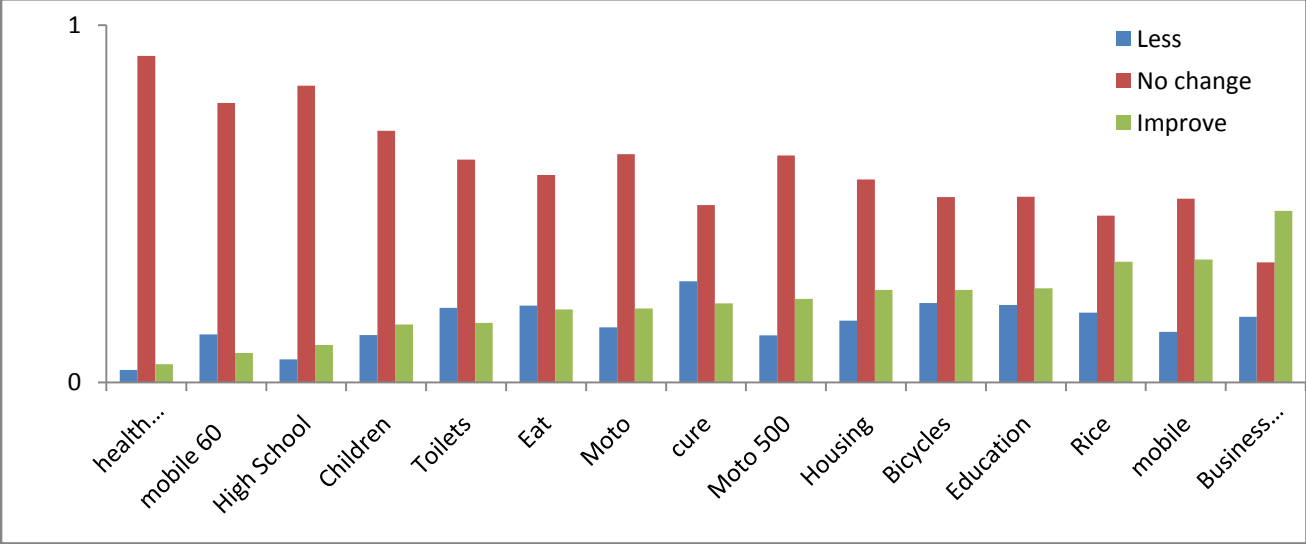
In this section, each partner's answers on all questions, are compared over time. The results are then divided in three categories:

- Stagnation if the score is the same from one PAT form to the next
- Degradation if the score is lower from one PAT form to the next
- Improvement if the score is higher from one PAT form to the next

³ PAT1 refers to the first PAT questionnaires asked to these clients ; PAT2 to the second time they were interviewed and PAT3 to the third time.

ANALYSIS ON ALL QUESTIONS

The first trend that appears is that the most common occurrence is that the answers do not vary from one PAT to the other (red column in the following graph). This seems to indicate that most of the questions are not very variable and that changing from one answer to another constitutes a considerable change.

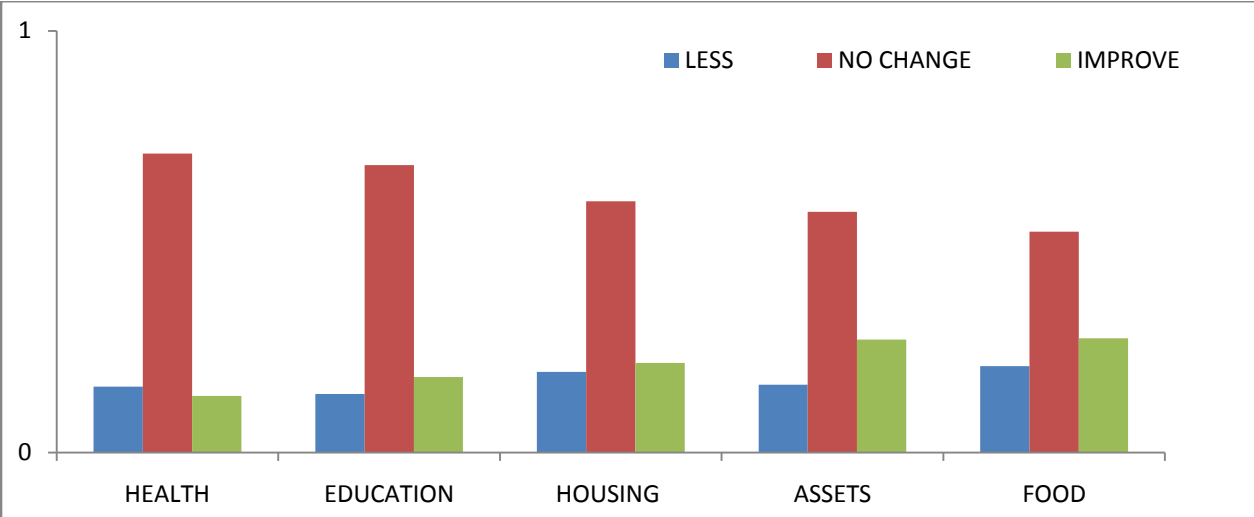


Nevertheless, there is **only one criterion** on which a majority of the partners have seen their condition improving: the **“business capital” (48% of increase)**. This indicates that in most cases the loan provided by Chamroeun reach their aim to enable partners develop their business.

The second data which is the most positively elastic to the PAT is the **number of mobile phones** owned, with **34% of improvement**.

The third data is the **purchase of rice bags of 50kg (34% increased)**. This demonstrates that loans somehow improve the level of income of the family and thus provide more opportunities to make economies of scale.

GENERAL CATEGORIES

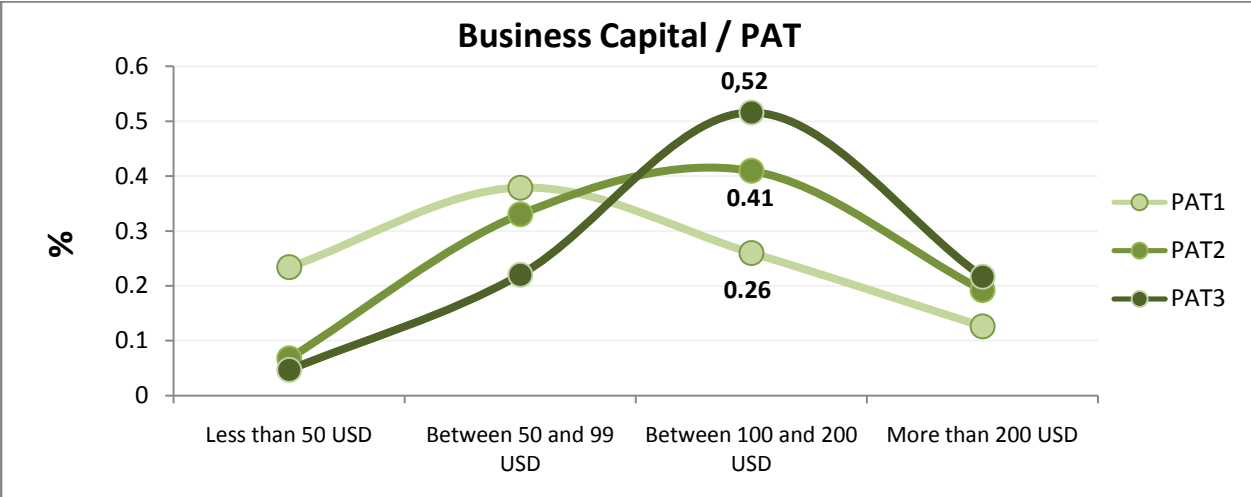


The analysis of this chart is really interesting. It shows that loans actually provide the possibility for loaners to improve their everyday life by changing their habits on material aspects: food, assets, and house. However, the impact of microfinance services is smaller on non material factors such as education and health care.

C. DETAILED EVOLUTION

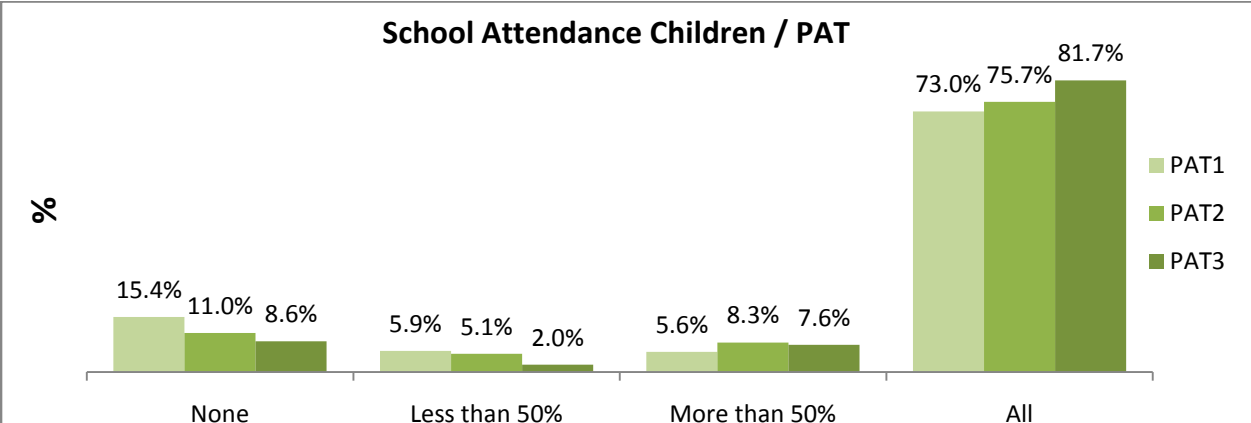
BUSINESS CAPITAL

The main increase in the business capital of the households between the different loan cycles is clearly the increase from 50-99 USD to 100-200 USD. In PAT2, **60% partners reached 100 USD or more in business capital** or more (the percentage is 74% for partners in PAT3) while it is only **39% in loan cycle 1**.



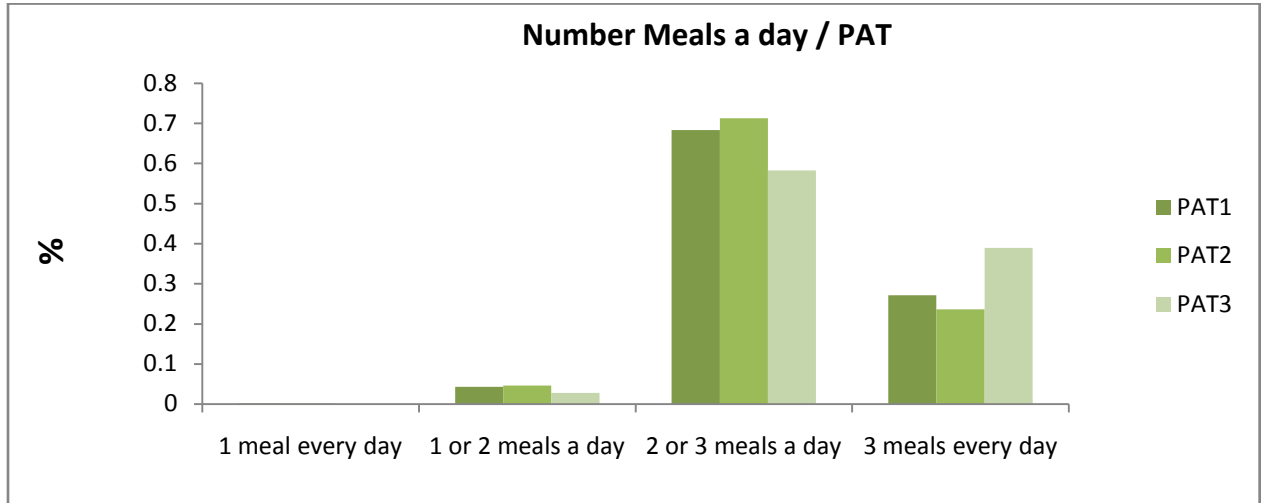
SCHOOL ATTENDANCE

The school attendance of children aged 6 to 16 also increases somewhat: approximately **83%** of the children of families in **PAT2 go to school** (90% for the smaller PAT3 sample), when only **79%** attended school in **PAT1**. The precise results are illustrated here:



MEALS PER DAY

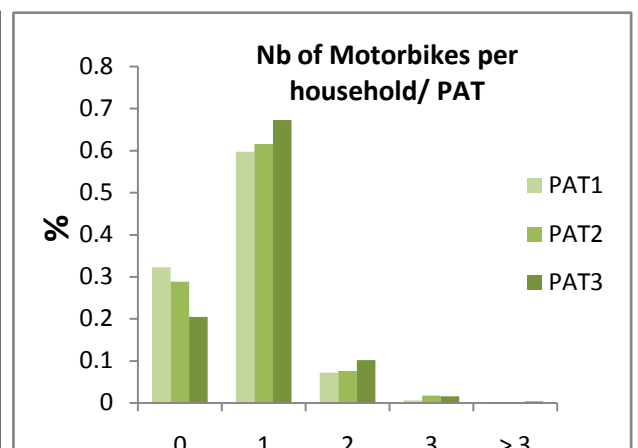
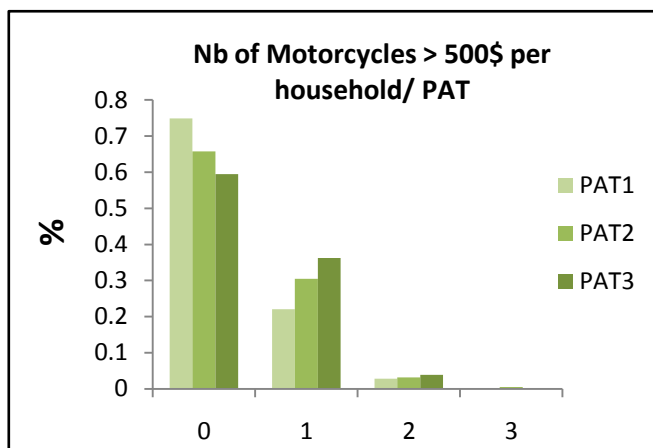
This chart on the number of meals a day per household shows an interesting result: most of the families having sometimes 2, sometimes 3 meals a day, moved forward in PAT3 to a regular 3 meals a day score.



MOTORCYCLE OWNERSHIP

The motorbikes are used to illustrate the trend on assets ownership based on the PAT questionnaires. The ownership of motorbikes increases over the loan cycles:

40% of the partners in **PAT3** have a **motorbike worth more than 500\$**, against 34% in PAT2 and 25% in PAT1.



The number of people having a bicycle also increases, but very slightly, because bicycles belongs to the low value assets in Cambodia and people are less likely to get a bike when their financial means increase.

V. MAIN RESULTS

	PAT1	PAT2	PAT3
BUSINESS CAPITAL			
% of households with business capital > 100\$	39%	60%	74%
HEALTH			
% of households going to the doctor or hospital when seriously sick	54%	51%	57%
EDUCATION			
% of households where someone pursued studies in High school or university	31%	36%	40%
% of households with less than 50% of children aged 6-16 going to school	21%	16%	11%
ASSETS			
% of households owning no mobile phone	37%	19%	15%
% of households owning at least one motorbike > 500\$	25%	34%	40%
FOOD			
% of households having 3 meals a day everyday	27%	24%	39%
% of households never buying big rice bags	19%	9%	2%
HOME			
% of households owning a house in a legal area	62%	69%	81%