

# Richer but fatter: the unintended consequences of microcredit financing on household health and expenditure in Jamaica

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First published: 20 October 2014

<https://doi.org/10.1111/tmi.12403>



## Abstract

### Objective

To determine whether there was a difference in wealth and cardiovascular disease (CVD) risk between microcredit loan beneficiaries and community-matched non-beneficiaries (controls).

### Methods

Seven hundred and twenty-six households of microcredit loan beneficiaries were matched with 726 controls by age, sex and community. A standardised interviewer administered questionnaire was used to collect data on health and household expenditure. Weights, heights, waist circumference and blood pressure measurements were taken for an adult and one child (6–16 years) from each household.

### Results

Amongst adults, there was no difference in the prevalence of pre-hypertension and hypertension. More male (68.1% vs. 47.8%) and female beneficiaries (84.5% vs. 77.9%) were overweight/obese. More male (17.2% vs. 7.1%;  $P < 0.05$ ) and female beneficiaries (68.5% vs. 63.3%;  $P < 0.05$ ) exhibited substantially increased risk for CVD. Children of beneficiaries displayed higher mean BMI-for-age z-scores than their control peers: males 0.56 [95% CI 0.40–0.72] vs. 0.18 [95% CI 0.02–0.35] ( $P < 0.001$ )

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# Abstract

## Objectif

Déterminer s'il y avait une différence dans la richesse et le risque de maladies cardiovasculaires (MCV) entre les bénéficiaires de microcrédit et les non-bénéficiaires appariés (témoins) de la communauté.

## Méthodes

726 ménages bénéficiaires de microcrédit ont été appariés à 726 témoins par âge, sexe et communauté. Un questionnaire d'enquête standardisé a été utilisé pour recueillir des données sur la santé et les dépenses des ménages. Poids, taille, circonférence de la taille et pression artérielle ont été mesurés pour un adulte et un enfant (de 6 à 16 ans) dans chaque ménage.

## Résultats

Chez les adultes, il n'y avait pas de différence dans la prévalence de l'hypertension et de la pré-hypertension. Plus de bénéficiaires masculins (68,1% vs 47,8%) et féminins (84,5% vs 77,9%) étaient en surpoids/obèses. Plus de bénéficiaires masculins (17,2% vs 7,1%,  $p < 0,05$ ) et féminins (68,5% vs 63,3%,  $p < 0,05$ ) présentaient substantiellement plus de risque accru de MCV. Les enfants de bénéficiaires présentaient des z-scores moyens de l'IMC-pour-l'âge plus élevés que leurs pairs témoins; garçons 0,56, [IC95%: 0,40 à 0,72] vs 0,18, [IC95% 0,02 à 0,35] ( $p < 0,001$ ) et filles 0,66, [IC95%: 0,52 à 0,80] vs 0,42, [IC95%: 0,29 -0,56], ( $p < 0,001$ ). Sur base des z-scores de l'IMC-pour-l'âge, les enfants des bénéficiaires avaient plus de chances d'être en surpoids/obèses (OR = 1,46; IC95%: 1,18 à 1,82). Les bénéficiaires étaient économiquement plus aisés; leurs dépenses annuelles totales moyennes et leurs possessions immobilières étaient significativement plus élevées que pour les témoins ( $p < 0,001$ ).

## Conclusions

Le financement de microcrédit est positivement associé à l'acquisition de richesse, mais a empiré l'état de risque cardiovasculaire.

## Abstract

## Objetivo

Determinar si existía una diferencia en riqueza y riesgo de enfermedad cardiovascular (EC) entre

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## Resultados

Entre adultos, no había diferencias en la prevalencia de prehipertensión e hipertensión. Más hombres (68.1% vs 47.8%) y mujeres beneficiarias de un microcrédito (84.5% vs 77.9%) tenían sobrepeso / obesidad. Más hombres (17.2% vs 7.1%;  $p < 0.05$ ) y mujeres beneficiarias (68.5% vs 63.3%;  $p < 0.05$ ) mostraban un aumento sustancial del riesgo para enfermedad cardiovascular. Los niños de beneficiarios tenían una mayor media del índice de masa corporal por edad (Z-score) que sus iguales en el grupo control; hombres 0.56, [IC 95% 0.40–0.72] vs 0.18, [IC 95% 0.02–0.35], ( $p < 0.001$ ) y mujeres 0.66, [IC 95% 0.52–0.80] vs 0.42, [IC 95% 0.29–0.56], ( $p < 0.001$ ). Basándose en índice de masa corporal por edad (Z-score), los niños de beneficiarios tenían una mayor probabilidad de tener sobrepeso / ser obesos (OR=1.46; IC 95% 1.18 – 1.82). Los beneficiarios estaban económicamente mejor situados: su gasto medio anual y el tener casa en propiedad era significativamente mayor que en los controles ( $p < 0.001$ ).

## Conclusiones

La financiación de microcréditos está asociada de forma positiva con la adquisición de riquezas pero con un peor estatus de riesgo cardiovascular.

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