## 149/1425. Process evaluation of a cash 149/1431. Leptin induces in vitro and in vivo transfer program in rural Togo: an opportunity for operational troubleshooting

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Introduction: In Togo, the Government is implementing a conditional cash transfer program associated to Behavior Change Communication (BCC) activities in two vulnerable regions. The program, which targets women during the "1,000 days period" and aims at promoting children's nutrition, is being evaluated in terms of process and impact.

Objectives: To document the key implementation challenges of the program, 6 months after it started, and suggest improvements.

Method / Design: A Program Impact Pathways analysis was first conducted to identify program areas deserving special attention. Data collection was then tailored accordingly and conducted using mixed-methods at various program levels (from program designers to beneficiaries); it encompassed focus group discussions, home-based interviews, review of program documents, direct observations of payments and BCC activities.

Results: Front line workers (FLWs) had a wrong understanding of some aspects of the program, notably the conditions associated to the transfer. In large villages with many beneficiaries, FLWs were overloaded with BCC activities (information/sensibilisation sessions and home-visits). Information, training and motivation of community staff should be reinforced to alleviate FLWs' workload. The program suffered from a lack of communication at all levels. Regular meetings should be organized to identify problems and turn suggestions for improvement into actions. The cash distribution went well despite some delays in payments and long hours queuing for women. Risks of hold-ups were also feared by the financial institution responsible for payments in villages, suggesting that additional security protection may be needed. According to beneficiaries and FLWs, village heads should be further involved in the program. They are influential community members who, for instance, may help mobilizing husbands whom participation to the program is likely to be a key to success.

Conclusions: Process evaluation initiated at an early stage may help refining programs by identifying obstacles that can affect program services and quality of implementation.

Keywords: (maximum 5): process evaluation, cash transfer program, Togo.

# the inflammatory response in mammary epithelial neoplastic cells

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Introduction: In post-menopausal women, obesity increases the risk of breast cancer and mortality. Overweight is characterized by hyperleptinaemia, oxidative stress and inflammation. That results in lipid peroxidation leading to the production of key pro-inflammatory compounds of carcinogenesis.

Objectives: The study focused on the effects of leptin on the inflammatory response via the lipid peroxidation by in vitro and in vivo approaches.

Method / Design: In vitro study was conducted on HMEC cells, MCF-7 and MDA-MB-231 in the presence of leptin (10/100 ng / ml) by the determination of hydroperoxides and isoprostanes and by gene expression and catalytic activity of the glutathione peroxidase 1 (GPx1) and cyclooxygenase 2 (COX2). The inflammatory response in vivo has been characterized in the C57 / BL6 (mammary cancer: EO771), levels by quantification of interleukins, leptin and isoprostanes in plasma and by thedetermination ofhydroperoxides, isoprostanes and COX2 activityin tumors.

Results: In vitro, whatever the concentration of leptin, a slight increase in production of cellular reactive oxygen species is observed. Induction of expression of GPx1 at 1 hour and of its catalytic activity at6 hours is resulted in a low lipid peroxidation for HMEC. Conversely, in cancer cells, GPx1 is not activated which causes a large increase in lipid peroxidation and overexpression of COX-2 (p <0.05). These results are in agreement with the in vivo model for which an increase of the plasma leptin is associated with an increase in inflammatory cytokines (TNFa, IL-6).

Conclusions: This study confirms the impact of leptin on lipid peroxidation and inflammatory response in neoplastic mammary epithelial cells, strengthening the link between obesity and breast carcinogenesis.

Keywords: (maximum 5): Leptin, obesity, breast cancer, lipid peroxidation

## 149/1433. Physical activity coupled with calcium and vitamin d3 supplementation: important determinants to improve elderly bone health

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# Abstracts

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