

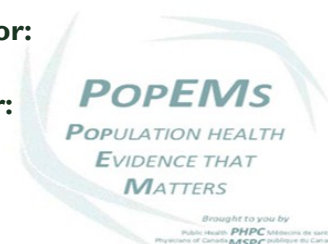
The Influence of Menu Labeling on Calories Selected or Consumed: A Systematic Review and Meta-Analysis¹

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BOTTOM LINE: This systematic review found 17 heterogeneous quasi-experimental and experimental studies from the last 14 years. The analysis revealed that information-only menu labeling did not decrease calories selected or consumed. However, contextual or interpretive labeling did very modestly decrease caloric intake. Despite the fairly weak evidence for menu labeling, several jurisdictions are pursuing this policy.

Content Area: Health Promotion, Healthy Public Policy/Planning,

Keywords: Menu Labeling, Nutrition, Healthy Public Policy.

Background: Menu labeling is a public health policy that has been proposed to address obesity.² In North America there have been a number of recent menu labeling policy initiatives including in the province of Ontario and in particular the City of Toronto.³ It is believed that providing additional information on restaurant menus will help consumers choose healthier food options, but the evidence for this is unclear.

Methods: Databases were searched for controlled experimental and quasi-experimental studies between 1990-2013 investigating the effect of *informative* (providing nutrient content only e.g. calorie count), *contextual* (providing additional information to put the nutrient content in context e.g. daily recommended caloric intake) or *interpretive* (offering an additional interpretation of the menu e.g. traffic light symbol) menu labeling on calories selected or consumed. Studies were included if they were conducted in Canada, the U.S. or a country with a “similar nutrition labeling environment” and examined healthy, non-institutionalized persons aged 11 or older. Experimental studies that were sufficiently similar were pooled in a meta-analysis.

Findings/Results:

Data from 17 studies – 7 quasi-experimental, 10 experimental – were synthesized. Informative only menu labeling of calories did not decrease calories selected or consumed (-31 kcal [P=0.35] and -13 kcal [P=0.61], respectively). The addition of contextual or interpretive information led to a statistically significant difference in calories selected and consumed (-67 kcal [p=0.008] and -81 kcal [p=0.007] respectively). This effect was noted in women, but not men.

IMPLICATIONS: This review suggests that calorie counts alone on menus do not influence food selection. However, the addition of contextual or interpretive information made a statistically significant difference in reducing calories selected and consumed, indicating that any menu labeling policy intervention should consider additional information to aid the consumer in choosing healthy menu items.

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Contributor Comments/ Analysis

One important limitation of some menu labeling studies including a number contained in this systematic review is that participants are not required to pay for their selected food. It is likely that cost is a significant factor in food choices and this influence is not investigated in this systematic review. Although the meta-analysis shows a statistically significant decrease in calories selected and consumed when contextual or interpretive information is applied to menu labeling, it is unclear whether a reduction in (on average) 67 or 81 kcal is significant enough to cause population-level change in the outcome of interest, that is, obesity. Furthermore, detailed cost-effectiveness analysis is needed to determine whether the intervention of menu labeling is worth the significant time, cost and human resources that health units/authorities and other decision-making bodies need to expend in order to enact this policy.



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