

# McDonald's, television, and prevalence of obesity essay



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## McDonald's, Television, and Prevalence of Obesity

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## **Aim**

There is a ground for concern because there is an ascertained tendency towards increased fleshiness rates in both developed and developing economic systems ( Kilpelainen et al. , 2011 ) . The increasing fleshiness rates have been attributed to alterations in life style ( World Health Organization ( WHO ) , 2004 ) . Therefore, there is a demand to explicate effectual public wellness policies that will control the lifting prevalence rates of fleshiness epidemic ( Kilpelainen et al. , 2011 ) . Particularly, fleshiness bar policies should concentrate on lifestyle alteration, which includes increased physical activity and hypocaloric diet. Reasons for inaction and high Calorie diet such as watching Television and handiness of fast nutrient mercantile establishments such as McDonald's are believed to be lending to the lifting prevalence of fleshiness ( Alheritiere et al. , 2013 ) . It is against this background that this probe was designed to understand whether fleshiness rates in a state depends on the figure of McDonald's eating houses per 1, 000 people and the figure of telecastings per 1, 000 people.

## **Background**

Fleshiness is a wellness status charaterised by inordinate organic structure weight in the signifier of fat ( World Obesity Federation, 2012 ) . An estimated 1. 5 billion grownups are fleshy or corpulent. More than 200 million school-age kids are estimated to be overweight ( World Obesity Federation, 2012 ) . Obesity epidemic has been increasing among all OECD states since it began ( OECD, 2014 ) . It is estimated that 18 % of the grownups in the OECD states are corpulent. The rate is highest in New Zealand, and the United States where more than one in every three

grownups are corpulent. In Australia and Canada, the rate is lower at more than one grownup in every four are corpulent ( OECD, 2014 ) .

The near-pandemic proportion of fleshiness is holding terrible wellness, societal, and economic impacts on the society. Obesity is associated with terrible wellness, societal, and economic impacts. Obesity is a important cause of morbidity, disablement and premature decease. In add-on, people with fleshiness are more susceptible to chronic diseases than those who do non hold. Some of the chronic diseases associated with fleshiness are type 2 diabetes, high blood pressure, coronary bosom disease, malignant neoplastic diseases, fatty liver, osteoarthritis, gall-bladder disease, and sleep apnea ( World Obesity Federation, 2012 ) .

Fleshiness has potentially serious societal impacts. There is considerable bias and stigmatisation against people with fleshiness. Stigmatization might take to depression and low self-pride, which adversely affect an individual's quality of life. Furthermore, societal bias and stigmatisation might convey about mental wellness issues, hapless educational results, and diminished employment chances ( World Obesity Federation, 2012 ) .

The economic impact of fleshiness is both direct and indirect. Direct costs of fleshiness are incurred through medical attending given to people with fleshiness. These include costs due to diagnosis and intervention of corpulence and related co-morbidities. Indirect costs of fleshiness are incurred through decreased productiveness and subsequent loss of income, unwellness, premature decease, absenteeism, and lost chances and restricted activity. Furthermore, societies make many accommodations to

the substructure in order to suit people with fleshiness. Such substructure accommodations might include wheel chairs, reinforced beds, and alterations to transport safety criteria ( World Obesity Federation, 2012 ) .

Sedentary behaviours and high Calorie fast nutrients have been identified as hazard factors for corpulence and fleshiness ( Alheritiere et al. , 2013 ; Zimmerman & A ; Bell, 2010 ) . McDonald's has been perceived as the symbol for fast nutrient ( Alheritiere et al. , 2013 ) . A old survey of 44 states reported a really strong relationship between the figure of McDonald's mercantile establishments and the proportion of fleshy individuals. However, the survey did non find whether McDonald's cause corpulence ( Alheritiere et al. , 2013 ) . Watching telecasting is an of import hazard factor for fleshiness. The increasing inclination toward sedentary life styles is illustrated by an addition in the figure of places with multiple Television sets and the figure of clip spent watching TVs. Watching Television lowers metabolic rate and increases high Calorie nutrient intake through exposure to nutrient advertisement ( Zimmerman & A ; Bell, 2010 ) .

## **Methods**

The informations used in this survey was obtained from 28 states most of which were from Europe. There were besides states from Asia and North America. Data was collected about prevalence of fleshiness, the figure of McDonald's mercantile establishments in each state per 1000 individuals and the figure of figure of TVs per 1000 individuals.

Data was analysed utilizing IBM SPSS Statistics Version 20. To prove the hypothesis, a multiple arrested development with fleshiness rate as the

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result variable. The forecaster variables were figure of McDonald's mercantile establishments per 1000 individuals and figure of TVs per 1000 individuals.

## Consequences

The mean of per centum of corpulent people among the 28 states was 13.8536 ( *South dakota* = 6.45729 ). The average figure of McDonald's mercantile establishments per 1000 individuals among the 28 states was 15557 ( *South dakota* = .112533 ). The figure of TVs per 1000 individuals among the 28 states was 475.64689 ( *South dakota* = 132.068532 ).

A multiple arrested development analysis was performed with figure of McDonald's eating houses per 1000 individuals and figure of TVs per 1000 individuals as forecaster variables and per centum of fleshiness as the result variable. One-dimensionality of the independent variables was assessed utilizing partial secret plans. Figure 1 and Figure 2 show that although there is no perfect additive relationship between per centum of fleshiness and figure of McDonalds per 1000 individuals and per centum of fleshiness and figure of TVs per 1000 individuals, there was none of the partial arrested development secret plans demonstrates an obvious nonlinear form. Therefore, the one-dimensionality premise of multiple arrested development was most likely non violated.

Figure 1. A Partial Plot of the Relationship between Percentage of Obesity and Number of McDonalds per 1000 Persons

Figure 2. A Partial Plot of the Relationship between Percentage of Obesity and Number of McDonalds per 1000 Persons  
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From Figure 3, it can be observed that the points are reasonably dispersed equally and indiscriminately throughout the secret plan. This sort of form indicates that the premises of one-dimensionality and homoscedasticity were met.

Figure 3. A Plot of Standardized Residuals vs. Standardized Predicted Values

Findings show that the theoretical account had an equal quality as determined by the multiple correlativity coefficient (  $R_{\text{Roentgen}} = .425$  ). Although this correlativity was non strong, it was low but equal. The arrested development theoretical account could explicate 18.1 % of the discrepancy in the dependant variable, per centum of fleshiness, before it was adjusted. However, the extracted theoretical account was able to account for 11.5 % of the discrepancy in the dependant variable ( per centum of fleshiness ) after it was adjusted for the consequence of any confusing variable. The findings mean that the theoretical account had a little explanatory ability for the dependant variable ( per centum of fleshiness ) .

Model Summary <sup>B</sup>

Model	Roentgen	R Square	Adjusted R Square	Std. Mis the Estim
1	.425 <sup>a</sup>	.181	.115	6.0734

a. Forecasters: ( Constant ) , Number of TVs per 1000, Number of McDonalds per 1000

## B. Dependent Variable: Percentage obese

Table 1. The Multiple Linear Regression Model Summary

The extracted theoretical account was non a good tantrum for the information. The ground is that as shown in Table 2, the arrested development theoretical account did non statistically significantly predict the per centum of fleshiness in a state. The two independent variables, figure of McDonald's mercantile establishments per 1000 individuals in a given state and figure of TVs per 1000 individuals in the same state, did non statistically significantly predict the per centum of fleshiness in that state,  $F(2, 25) = 2.760$ ,  $P = .083$ . F-test's deficiency of statistical significance implies that the void hypothesis is upheld. In this survey, the F-test void hypothesis holds that there is no additive relationship between the independent variables independent variables ( figure of McDonald's per 1000 individuals, figure of TVs per 1000 individuals in a state, and the per centum of fleshiness cases in that state. The upholding of the void hypothesis means a additive relationship between the variables in the arrested development theoretical account is extremely improbable.

Analysis of variance <sup>a</sup>

Model	Sum of Squares	df	Mean Square	F	Si
1	Arrested	203.	2	101.	2.



	development	627	814	70
Residual	922.182	25	36.887	
Entire	1125.810	27		

a. Dependent Variable: Percentage obese

b. Forecasters: ( Constant ) , Number of TVs

per 1000, Number of McDonalds per 1000

Table 2. The Multiple Linear Regression ' s F-test Statistics

The coefficient estimations of the extracted theoretical account are shown in Table 3. The unstandardized coefficients demo how much the result variable ( per centum of fleshiness ) changes with a given independent variable when all other variables are held changeless. Table 3 shows that for every one extra McDonald's mercantile establishment per 1000 individuals, there is matching addition of 34.163 in the per centum of fleshiness. The alteration was statistically important (  $p = 0.27$  ) , although it was traveling toward nonsignificance. However, for every addition in one Television set per 1000 individuals, there is a lessening of .021 in the per centum of fleshiness in the state. However, this lessening was non statistically important (  $P = .106$  ) . The more powerful of the two independent variables in foretelling per centum of fleshiness was figure of McDonald's per 1000 individuals ( Beta = .595 ) than the figure of TVs per 1000 individuals ( Beta = -.425 ) . In other words, the figure of McDonalds per 1000 individuals has a higher impact on

the per centum of fleshiness in a given state than the figure of TVs per 1000 individuals. Therefore, the figure of McDonald's per 1000 individuals in a state makes a higher part to the prevalence of fleshiness than the figure of TVs per 1000 individuals in that state.

Coefficients <sup>a</sup>

Model	Unstandardize d Coefficients	Standardized Coefficients	T	Sig.	95.0 % Confidence Interval for B	
					Lower Boundary	Upper Bound
1	( Constant )	18.428	4.744		3.884	
	Number of McDonalds per 1000	34.163	14.543	.595	2.349	.027
	Number of TVs per 1000	-.021	.012	-.425	-1.678	.106

a. Dependent

Variable:

Percentage

obese

## Table 2. The Multiple Linear Regression Estimates

Using the information provided in Table 3, the theoretical account for foretelling per centum of fleshiness in a given state may be given as:

$$\text{Predicted Percentage fleshiness} = 18.428 + 34.163 (\text{McDonalds}) - .021 (\text{TVs})$$

For Australia, the predicted fleshiness rate can be calculated utilizing the equation as:

$$\text{Predicted Percentage Obesity} = 18.428 + 34.163 (.349) - .021 (505.226)$$

$$= 18.428 + 11.922887 - 10.609746$$

$$= 19.741141 \%$$

Therefore, the predicted per centum of fleshiness in Australia is 19.74% .

The existent fleshiness rate in Australia is 21.7% . Therefore, the predicted value is lower than the existent rate of fleshiness. However, observing that theoretical account is merely able to account for merely 11.5% of the discrepancy in the fleshiness rate when the consequence of confusing variables is taken into history, is possible to see the predicted value is lower.

## Discussion

The past few decennaries have seen prevalence of fleshiness reach epidemic degrees ( Foster-Schubert, 2012 ) . Recent alterations in life style have been cited as the taking ground for the lifting prevalence rates of fleshiness ( WHO, 2004 ) . Lifestyle intercessions aimed at weight loss have been considered as cardinal to the bar of fleshiness. This survey was designed to find if the figure of McDonald's eating houses per 1000 individuals and the figure of TVs per 1000 individuals may be used to significantly foretell the per centum of fleshiness in a state.

The findings show that the arrested development theoretical account with the figure of McDonalds per 1000 individuals and the figure of TVs per 1000 individuals as the independent variables and per centum of fleshiness as the dependant variable did non statistically significantly predict per centum of fleshiness. The extracted theoretical account could merely explicate a little discrepancy of 18. 1 % in the dependant variable ( per centum of fleshiness ) before being adjusted for the consequence of immaterial variables. When the theoretical account was adjusted for the consequence of confusing variables, it explained a smaller discrepancy in the dependant variable. The F-test showed that the theoretical account did non statistically significantly predict per centum of fleshiness.

Consistent with old research ( Alheritiere et al. , 2013 ) , the figure of McDonald's per 1000 individuals in a given state statistically significantly added to the theoretical account. However, the figure of TVs per 1000 individuals did non statistically significantly lend to the anticipation of per centum of fleshiness in a state. The figure of McDonald's mercantile  
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establishments per 1000 individuals was more powerful in foretelling per centum of fleshiness than the figure of TVs per 1000 individual in that state.

The ground why the figure of TVs did non statistically add to the anticipation theoretical account is non clear. However, it might be noted that the presence of Television in a family is non certain indicant that the members of that family do non prosecute in physical exercisings. In add-on, there are other factors that topographic point people at the hazard of fleshiness such as the presence of FTO cistron discrepancy that increases an individual's susceptibleness to fleshiness. If members of a given family do non hold this cistron, there is a possibility that they might non go corpulent even if they spend clip watching telecastings ( non making physical exercisings.

It was a surprising determination to happen that an addition in the figure of TVs per 1000 individuals was associated with a lessening in the per centum of fleshiness, though non statistically important. It was expected that an addition in the figure of TVs would be associated with an addition in fleshiness. This determination might be explained by observing that the nowadays of Television in families might hold served as of import beginnings of information on how to forestall fleshiness. It might be that people with Televisions have more entree to information on the bar of fleshiness.

Unlike the instance of TVs, the presence of McDonald's clearly indicates that the outlet's merchandises have consumers in that state. If a state has a high figure of McDonald eating houses, it means that ingestion of McDonald's merchandises, most of which are high Calorie diet, is high in such a state.

This might explicate why the presence of McDonald's is an important forecaster of per centum of fleshiness in that state.

The findings of this survey show that an anticipation theoretical account made of the figure of McDonald's per 1000 individuals and the figure of TVs per 1000 individuals does not statistically significantly predict per centum of fleshiness. The figure of McDonald's mercantile establishments per 1000 individuals statistically significantly positively adds to the anticipation theoretical account. An addition in the figure of McDonald's per 1000 individuals is associated with a statistically important addition in the per centum of fleshiness. However, the figure of TVs per 1000 individuals does not significantly lend to the theoretical account. An addition in the ownership of TVs per 1000 individuals is associated with nonsignificant decrease in the per centum of fleshiness. Using these observations, the following recommendations are made. First, fleshiness bar plans should concentrate on modulating the figure of fast nutrient ironss selling high Calorie diets such as the MacDonalld's because of the important function they play in doing people corpulent. Such nutrient ironss might be targeted for bar attempts by being required, by jurisprudence, to set a label covering a considerable per centum of the packaging, bespeaking that what has merely been bought will increase opportunities of acquiring fleshiness. Second, wellness publicity runs intended to forestall fleshiness may see utilizing TVs to make more people. Alternatively of sing TVs as increasing fleshiness instances, they should be seen as of import tools for the bar of fleshiness. Third, there is demand for a follow-up survey to look into the consequence of holding a Television on fleshiness.

## Mentions

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