

Est-ce qu'une diète santé implique nécessairement une perte de poids? Leçons tirées de la diète méditerranéenne

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**Journée de
santé publique**

Québec

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Déclaration d'intérêt

Financement (5 ans)

- IRSC, CRSNG, FRQ-NT, FRQ-S
- Grappes laitières AAC/Producteurs laitiers du Canada
- Grappes Canola AAC/Canola Council of Canada
- Atrium Innovations
- Institut Danone
- Merck Frosst

Autres (Conseillé scientifique, honoraires, 5 ans)

- Producteurs laitiers du Canada
- Unilever
- Danone Canada
- Société canadienne de nutrition
- Centre Européen pour la Nutrition & la Santé (CENS)



Déclaration d'intérêt

Idéologiques:

- Pas au service d'une idéologie nutritionnelle spécifique (diète faible/riche en gras, DietMed, portfolio...)
- Au service des données scientifiques
- Aucun bénéfice personnel si la population consomme \pm de gras saturés, de sucre, la diète méditerranéenne...



CMAJ

GUIDELINES

Canadian Cardiovascular Harmonized National Guidelines Endeavour (C-CHANGE): 2014 update

Sheldon W. Tobe MD, James A. Stone MD PhD, Kimberly M. Walker MPH, Todd Anderson MD, Onil Bhattacharyya MD PhD, Alice Y.Y. Cheng MD, Jean Gregoire MD, Gord Gubitza MD, Mary L'Abbé PhD, David C.W. Lau MD, Lawrence A. Leiter MD, Paul Oh MD, Raj Padwal MD, Luc Poirier MSc, Peter Selby MD, Mark Tremblay PhD, Richard A. Ward MD, Diane Hua MPH, Peter P. Liu MD; for the C-CHANGE Initiative*

Diet, sodium and alcohol intake

Target population†

- To decrease blood pressure, consider reducing sodium intake toward 2000 mg (5 g of salt) per day.
- All individuals should be encouraged to adopt healthy eating habits to lower their risk of cardiovascular disease: 1) moderate energy (caloric) intake to achieve and maintain a healthy body weight; 2) emphasize a diet rich in vegetables, fruit, whole-grain cereals and polyunsaturated and monounsaturated oils, including omega-3 fatty acids particularly from fish; 3) avoid trans fats, limit saturated and total fats to $< 7\%$ and $< 30\%$ of daily total energy (caloric) intake, respectively; 4) increase daily fibre intake to > 30 g; 5) limit cholesterol intake to 200 mg daily for individuals with dyslipidemia or at increased risk of cardiovascular disease.



Tobe et al, CMAJ 2014

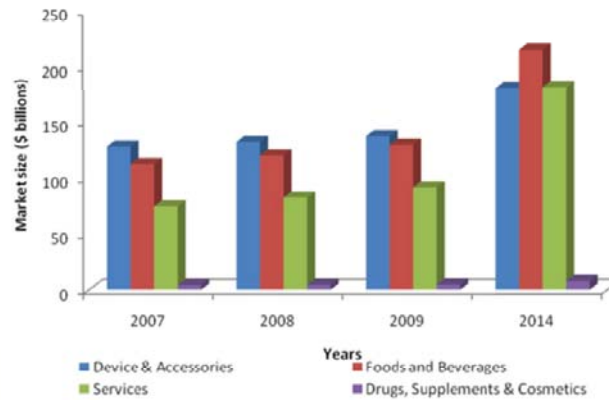
Recommandations nutritionnelles USDA 2010

« Équilibrer les calories pour gérer son poids »

« Contrôler son apport en calories pour bien gérer son poids. Pour ceux qui sont en surpoids ou obèses, ceci implique une **réduction des calories consommées »**

Mais est-ce que la perte de poids est la bonne cible?

Marché des produits liés à la gestion du poids (USA)



MarketsandMarkets 2014

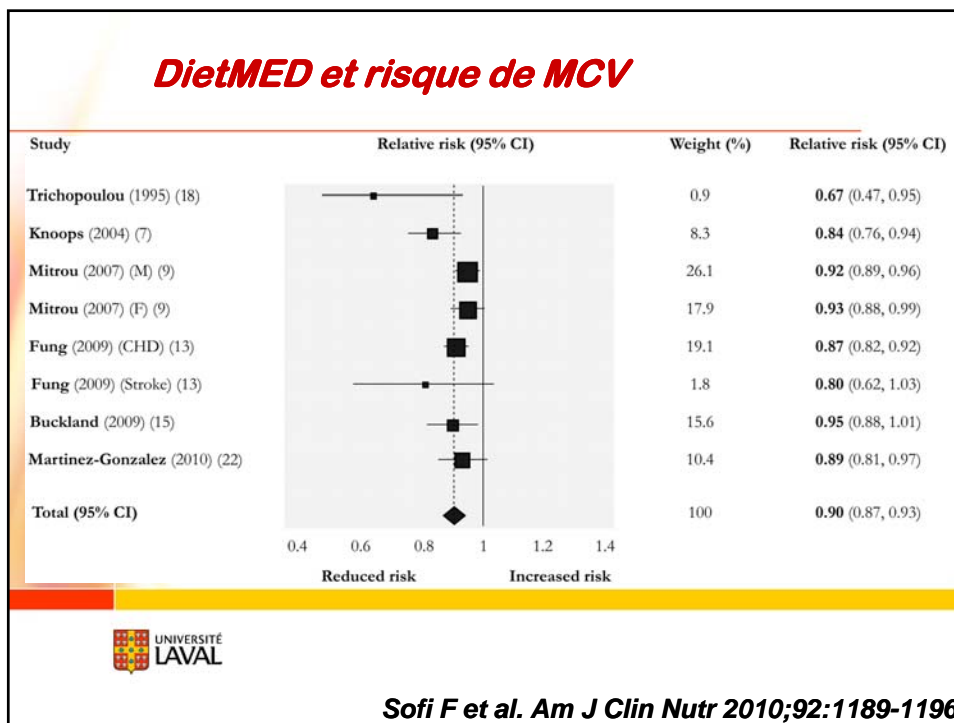
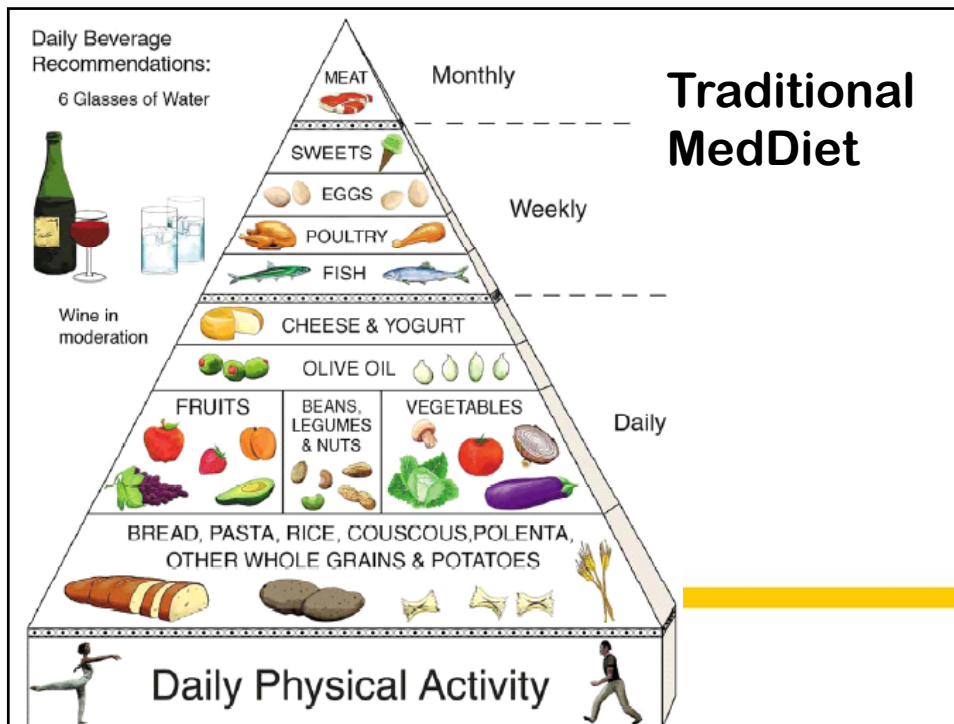
Projet EAT- Eating Among Teens (N=4700+ adolescents)

- Comportements alimentaires
 - Malsains: 57% ♀, 33% ♂
(jeûne, sauter des repas, cigarette)
 - Extrêmes: 12% ♀, 5% ♂
(vomissement, laxatifs, diurétiques)
- Comportements plus prévalents chez les jeunes en surpoids

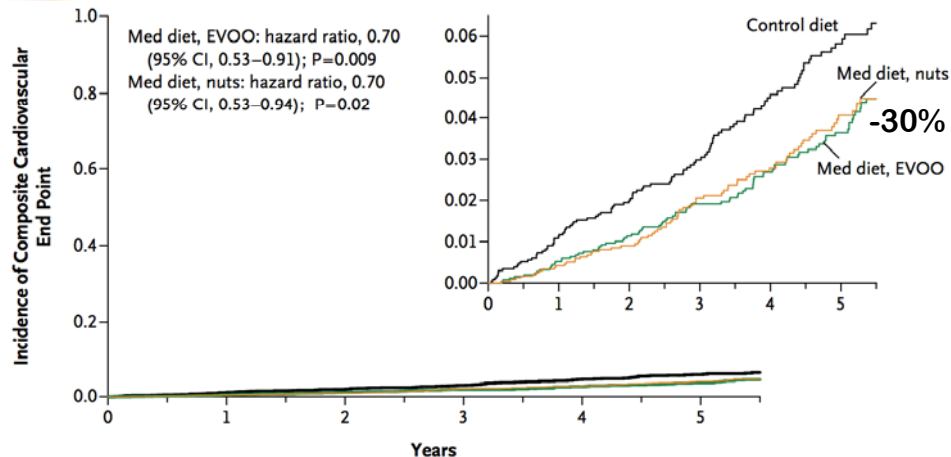


Neumark-Sztainer et al,
Arch Pediatr Adolesc Med. 2002 Feb;156(2):171-8.

Le concept « Fat and Fit »



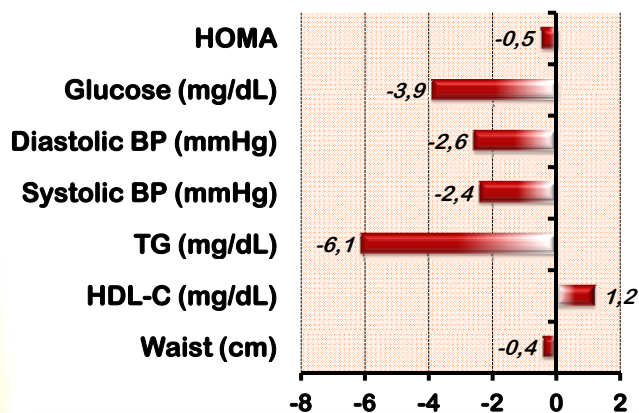
PREDIMED



www.ulaval.ca

NEJM 2013

The Effect of Mediterranean Diet on Metabolic Syndrome and its Components *A Meta-Analysis of 50 Studies and 534,906 Individuals*



www.ulaval.ca

14

JACC Vol. 57, No. 11, 2011

DietMed, perte de poids et syndrome métabolique

Considérations cliniques et métaboliques

OBJECTIF

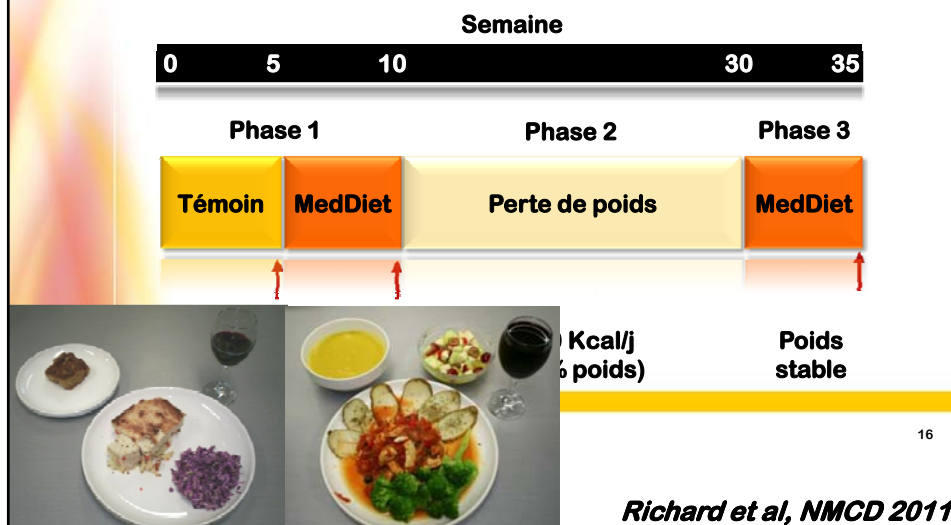
Étudier les effets de la DietMed, avec et sans perte de poids, sur les facteurs de risque cardiométabolique chez les hommes avec syndrome métabolique

*NMCD 2011, Br J Nutr 2011, Obesity 2012
JLR 2013, Nutr J 2013, MJNM 2013,
Metabolism 2013, ATVB 2014*

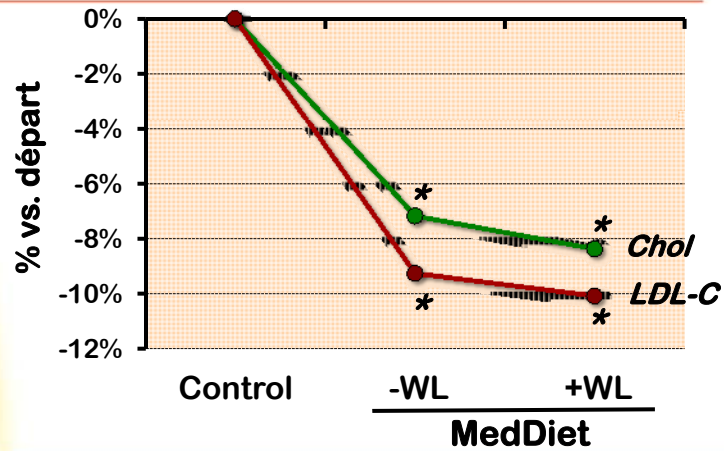
**C Richard
P Couture
S Desroches
AH Lichtenstein
B Lamarche**



Étude clinique contrôlée

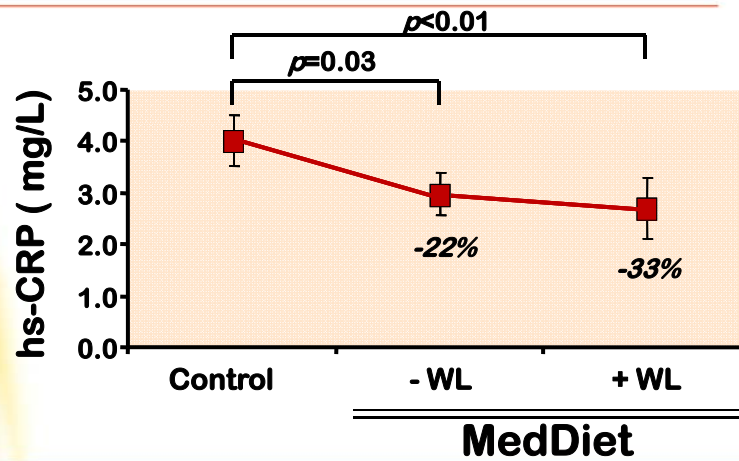


Cholestérol



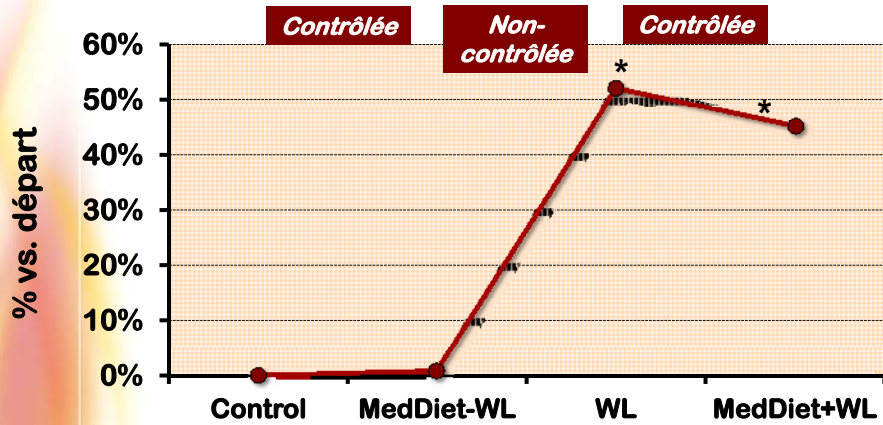
Richard et al, NMCD 2011

Hs-CRP (inflammation)



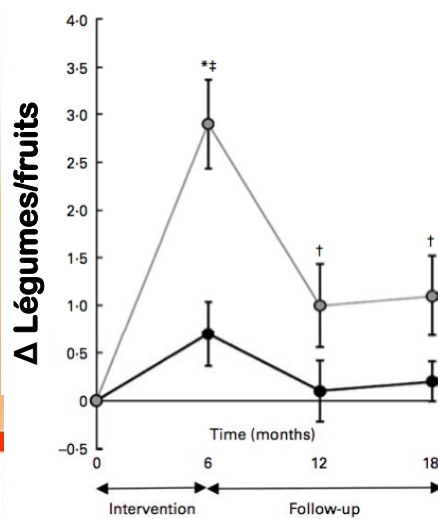
Richard et al, Obesity 2012

Restriction cognitive



Royer et al, unpublished

Faire la promotion des L/F vs. approche restrictive (diète faible en gras)



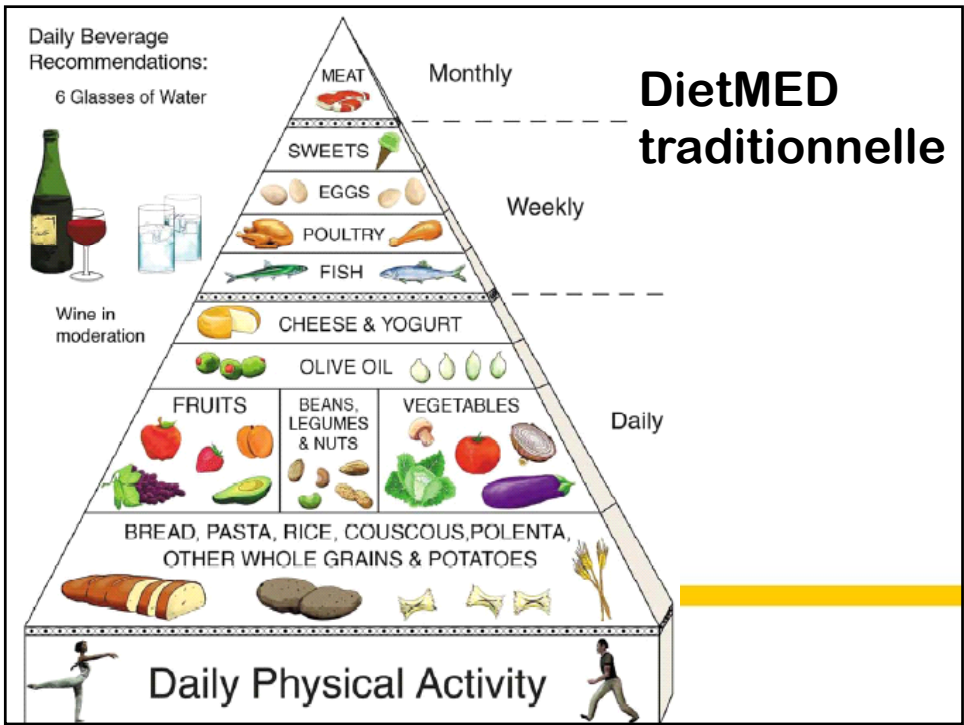
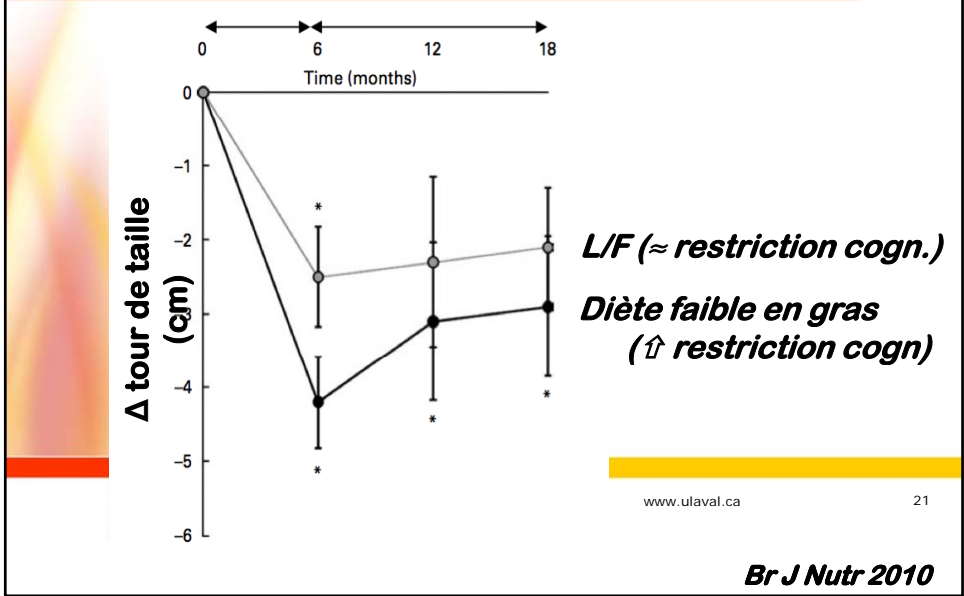
L/F (approche par objectif)


Diète (éviter...)

www.ulaval.ca

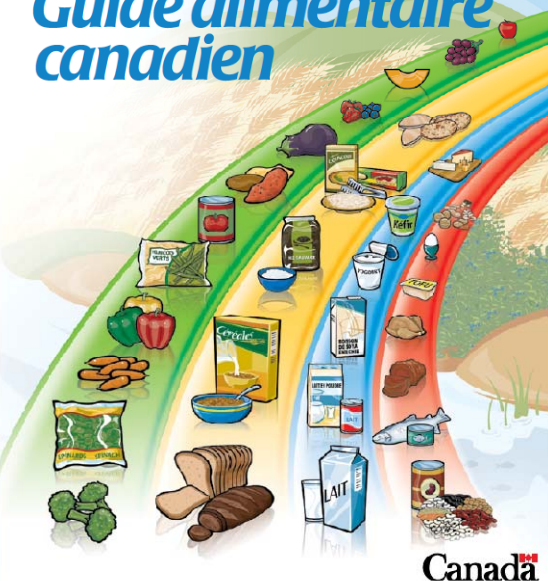
Br J Nutr 2010

Faire la promotion des L/F vs approche restrictive (diète faible en gras)





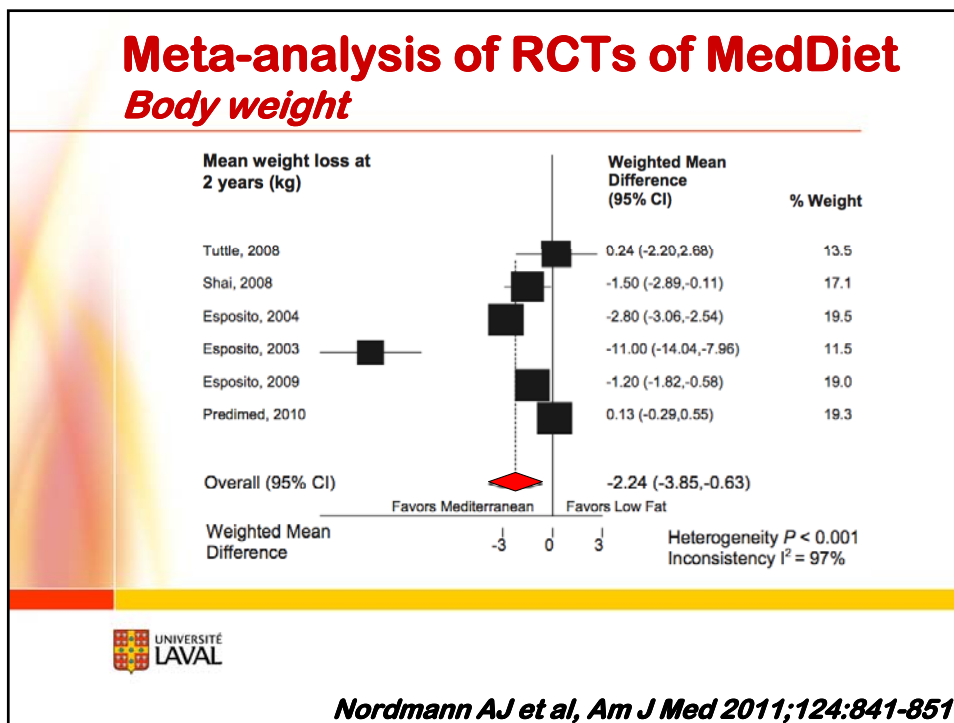
Bien manger avec le **Guide alimentaire canadien**



Score Med, Québec:
 21/44 (femmes)
 20/44 (hommes)

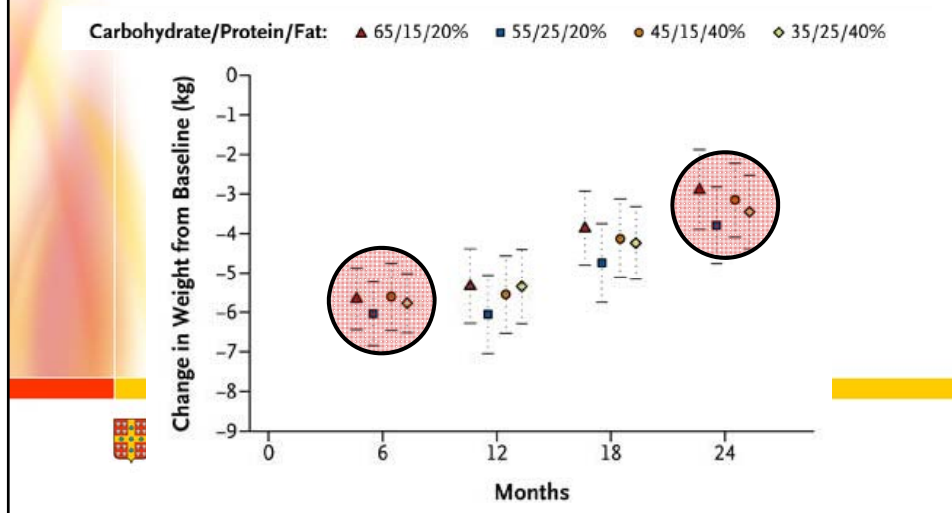
Score Med du GAC:
30/44 et +

www.ulaval.ca
Goulet et al, Atheroscler 2003
Richard et al Metabolism 2013



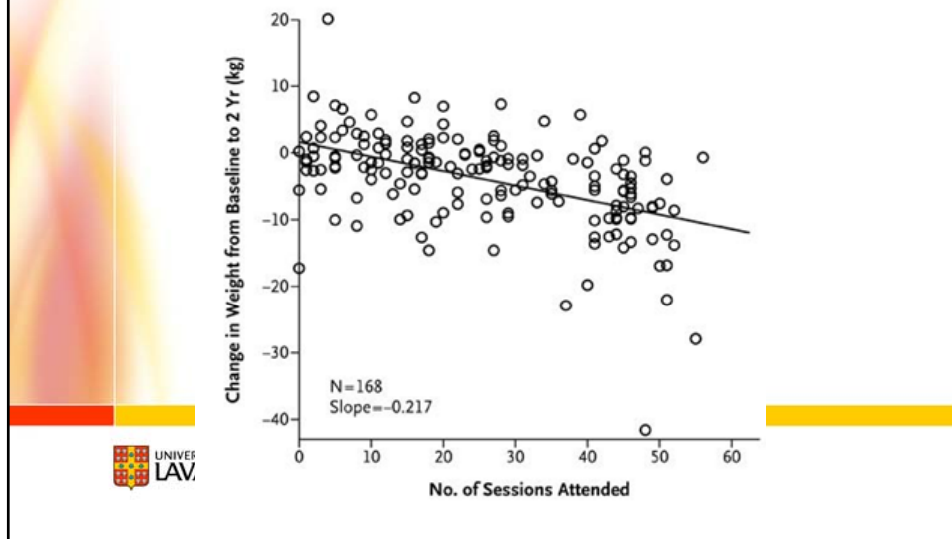
Comparison of Weight-Loss Diets with Different Compositions of Fat, Protein, and Carbohydrates

Sacks et al. NEJM 2009;360 (9): 859



Comparison of Weight-Loss Diets with Different Compositions of Fat, Protein, and Carbohydrates

Sacks et al. NEJM 2009;360 (9): 859



Est-ce que la perte de poids est la bonne cible?

NON...

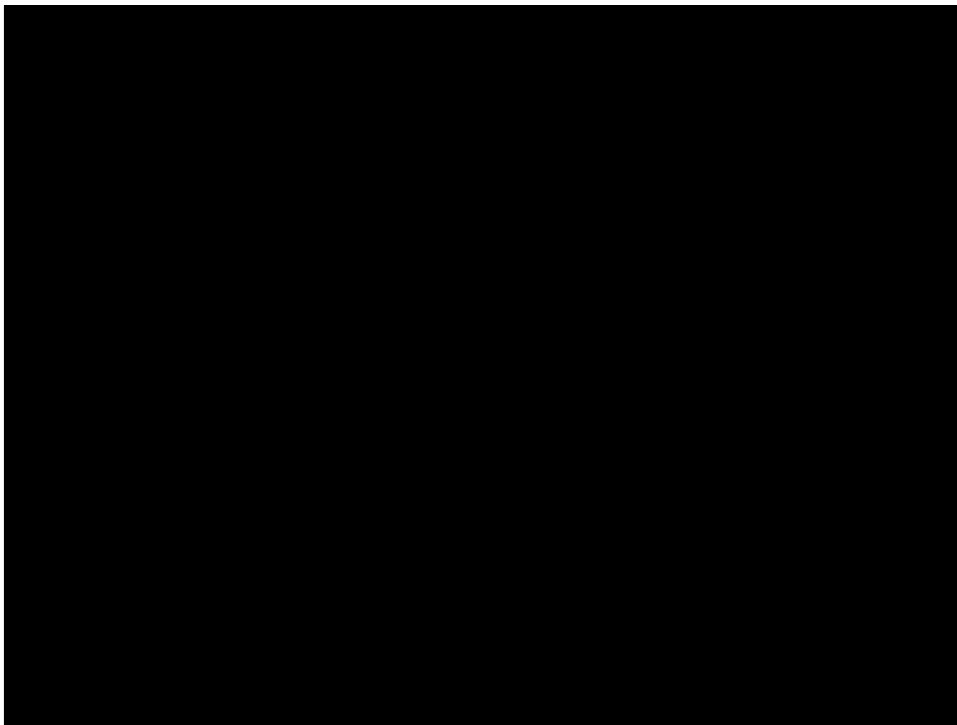
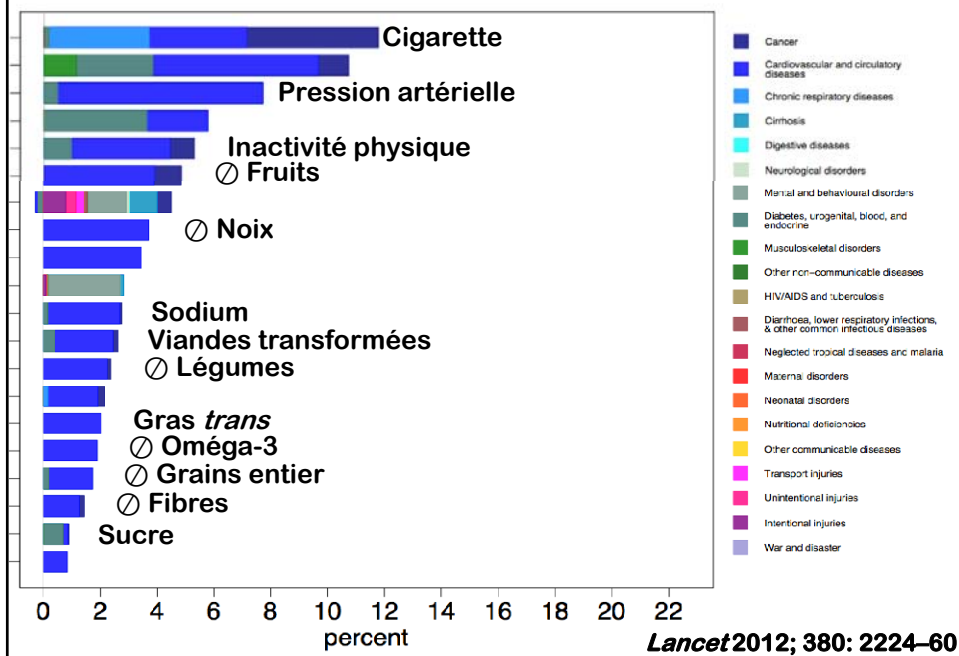
- Faible taux de succès à long terme des approches restrictives...
- Impacts indésirables à long terme sur le comportement alimentaire...
- Impacts indésirables à long terme sur la qualité de vie (stress, échecs...)

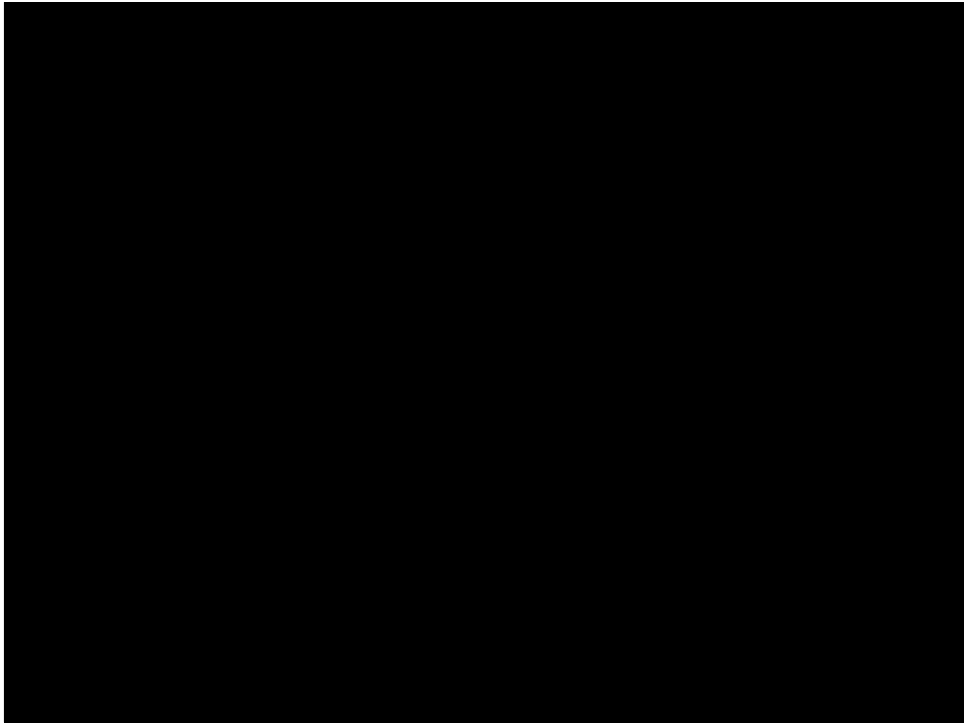
DÉFIS

- Maintien des habitudes alimentaires saines à long termes...



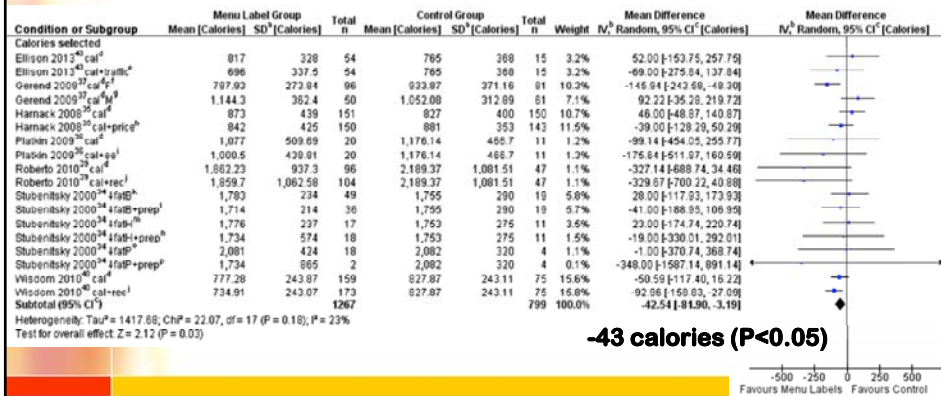
Disease burden, North America 2010





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

Calories sélectionnées



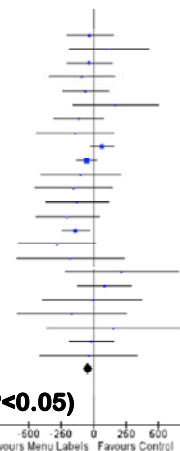
Sinclair, J Acad Nutr diet 2014

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

Calories consommées

Study	Mean (Calories)	SD (Calories)	n	Mean (Calories)	SD (Calories)	n	Weight	IV, Random, 95% CI (Calories)
Oliz 2012 ²⁶ cal ¹ RF ¹	463.70	206.16	30	490.35	200.70	0	4.5%	-26.57 [-204.30, 151.25]
Oliz 2012 ²⁶ cal ¹ RF ² M ¹	822.15	303.5	31	698.39	356.56	6	1.5%	123.76 [-180.89, 428.41]
Oliz 2012 ²⁶ cal ¹ UnRF ¹	476.44	258.2	37	509.27	257.65	11	4.7%	-32.83 [-206.34, 140.68]
Oliz 2012 ²⁶ cal ¹ UnRF ²	842.16	321.2	30	930.31	304.47	7	2.2%	-88.13 [-341.28, 165.02]
Oliz 2012 ²⁶ cal+rec ¹ RF ¹	428.4	226.17	18	490.35	200.70	0	4.4%	-61.95 [-240.95, 117.09]
Oliz 2012 ²⁶ cal+rec ¹ RF ²	868.10	317.41	14	698.39	256.56	6	1.3%	169.79 [160.42, 500.00]
Oliz 2012 ²⁶ cal+rec ¹ UnRF ¹	396.74	216.6	14	509.27	257.65	11	3.9%	-112.53 [-303.04, 77.98]
Oliz 2012 ²⁶ cal+rec ¹ UnRF ²	790.90	375.03	14	930.31	304.47	7	1.6%	-139.32 [-438.71, 160.09]
Harnack 2008 ²⁸ cal ¹	804.7	423.9	151	738	358.2	150	18.1%	65.70 [-22.94, 154.34]
Harnack 2008 ²⁸ cal+price ¹	761	356.8	150	813.3	331.6	143	22.9%	-52.30 [-131.13, 26.53]
Piatkin 2009 ²⁹ cal ¹	868.82	392.03	20	965.4	426.36	11	1.6%	-96.58 [-403.01, 209.85]
Piatkin 2009 ²⁹ cal+price ¹	841.31	367.03	20	995.4	429.36	11	1.6%	-154.09 [-454.51, 146.33]
Roberto 2010 ²⁷ cal ¹	1,324.72	620.65	96	1,459.92	724.62	47	2.4%	-124.20 [-365.72, 117.32]
Roberto 2010 ²⁷ cal+price ¹	1,256.37	688.47	104	1,458.92	724.62	47	2.4%	-202.55 [-448.36, 43.26]
Temple 2010 ²⁵ NF ¹ F ¹	487.6	110.8	12	623.65	151.2	11	12.0%	-136.05 [-245.20, -26.50]
Temple 2010 ²⁵ NF ¹ M ¹	742.1	194.7	12	1,021.9	489.8	12	1.6%	-279.80 [-578.02, 18.42]
Temple 2011 ³¹ NF ¹ L ¹ F ¹	642.5	181.8	11	819.4	460.4	5	0.8%	-176.90 [-594.51, 240.71]
Temple 2011 ³¹ NF ¹ L ¹ M ¹	1,037.4	289.9	7	819.97	336.9	3	0.7%	217.43 [-219.67, 654.53]
Temple 2011 ³¹ NF ¹ O ¹ F ¹	763.0	225.7	17	679.9	196.6	9	3.4%	94.00 [-122.22, 290.22]
Temple 2011 ³¹ NF ¹ O ¹ M ¹	1,152.0	466.1	16	1,161.2	442.9	9	1.0%	-40.40 [-291.49, 374.69]
Temple 2011 ³¹ traffic ¹ L ¹ F ¹	651.4	182.1	11	819.4	460.4	5	0.8%	-168.00 [-595.35, 240.25]
Temple 2011 ³¹ traffic ¹ L ¹ M ¹	974.5	462.7	7	919.97	326.9	3	0.6%	154.52 [-268.05, 667.11]
Temple 2011 ³¹ traffic ¹ O ¹ F ¹	665.7	217	17	679.8	196.6	8	4.9%	-14.10 [-184.98, 156.78]
Temple 2011 ³¹ traffic ¹ O ¹ M ¹	1,126.1	442.1	16	1,161.2	442.9	9	1.0%	-35.10 [-410.99, 340.78]
Subtotal (95% CI)			854			544	100.0%	-41.22 [-78.88, -3.46]

Heterogeneity: Tau² = 0.00, Chi² = 21.87, df = 23 (P = 0.53), I² = 0%
 Test for overall effect: Z = 2.14 (P = 0.03)



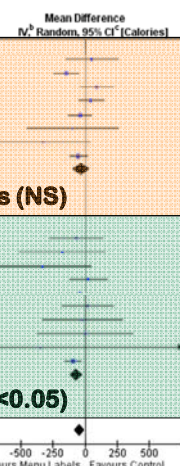
-41 calories (P<0.05)

Sinclair, J Acad Nutr diet 2014

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

Condition or Subgroup	Menu Label Group		Total n	Control Group		Total n	Weight	IV, Random, 95% CI (Calories)	Mean Difference IV, Random, 95% CI (Calories)
	Mean (Calories)	SD (Calories)		Mean (Calories)	SD (Calories)				
Calories selected - informative interventions									
Elison 2013 ³⁴ cal ¹	817	328	54	765	368	15	3.2%	52.00 [-153.75, 257.75]	
Derynd 2009 ²⁷ cal+price ¹	797.99	273.64	96	932.87	371.10	01	10.2%	-145.94 [-243.58, -48.30]	
Demers 2009 ²⁷ cal+price ¹	1,144.5	382.4	50	1,052.08	312.89	81	7.1%	82.22 [-35.28, 219.72]	
Harnack 2008 ²⁸ cal ¹	873	439	151	827	400	150	10.7%	46.00 [-48.87, 140.87]	
Harnack 2008 ²⁸ cal+price ¹	842	426	150	881	353	143	11.5%	-30.00 [-120.26, 50.26]	
Piatkin 2009 ²⁹ cal ¹	1,077	509.09	20	1,175.14	466.7	11	1.2%	-99.14 [-454.05, 255.77]	
Roberto 2010 ²⁷ cal ¹	1,082.22	627.3	96	2,189.37	1,081.51	47	1.1%	-327.14 [-688.74, 34.48]	
Wisdom 2010 ²⁷ cal ¹	777.28	243.07	159	827.87	243.11	75	15.6%	-50.59 [-117.40, 16.22]	
Subtotal (95% CI)			776			583	60.9%	-30.44 [-95.85, 34.98]	
Calories selected - contextual or interpretive interventions									
Elison 2013 ³⁴ cal+price ¹	896	337.5	54	765	368	15	3.2%	-89.00 [-275.84, 137.84]	
Piatkin 2009 ²⁹ cal+price ¹	1,009.5	428.81	20	1,175.14	466.7	11	1.2%	-175.64 [-511.07, 160.50]	
Roberto 2010 ²⁷ cal+price ¹	1,059.7	1,062.58	96	2,189.37	1,081.51	47	1.1%	-126.67 [-700.22, 40.88]	
Subbensky 2000 ³³ cal+price ¹	1,783	294	48	1,753	275	19	5.8%	26.00 [-117.93, 173.92]	
Subbensky 2000 ³³ cal+price ²	1,752	224	48	1,753	275	19	5.8%	-11.44 [-154.52, 131.64]	
Subbensky 2000 ³³ cal+price ³	1,776	237	17	1,753	275	11	3.5%	23.00 [-174.74, 220.74]	
Subbensky 2000 ³³ cal+price+prep ¹	1,734	574	18	1,753	275	11	3.5%	-19.00 [-330.01, 292.01]	
Subbensky 2000 ³³ cal+price+prep ²	2,081	424	18	2,082	320	4	1.1%	-1.00 [-370.74, 368.74]	
Subbensky 2000 ³³ cal+price+prep ³	1,734	895	2	2,082	320	4	0.1%	-348.90 [-1567.14, 891.14]	
Wisdom 2010 ²⁷ cal+price ¹	734.91	243.07	173	827.87	243.11	75	15.8%	-82.96 [-158.83, -27.09]	
Subtotal (95% CI)			491			216	36.0%	-67.39 [-116.89, -17.79]	
Total (95% CI)									
			1267			799	100.0%	-42.54 [-81.90, -3.19]	

Heterogeneity: Tau² = 0.00, Chi² = 5.86, df = 9 (P = 0.75), I² = 0%
 Test for overall effect: Z = 2.66 (P = 0.008)
 Test for subgroup differences: Chi² = 0.77, df = 1 (P = 0.38), I² = 0%



-31 calories (NS)

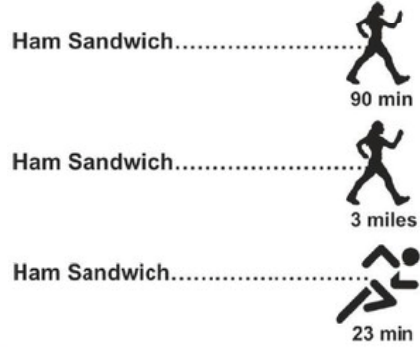
-67 calories (P<0.05)

Sinclair, J Acad Nutr Diet 2014

Contextualiser l'information (≠ environnements favorables)

Fitness Facts	
Calories burned per 1 hour	
Exercise	Amount
Running	560
Jogging	490
Walking	245
Bicycling	420

Estimated amount of expended, calories based on example body weight of 155 lbs.

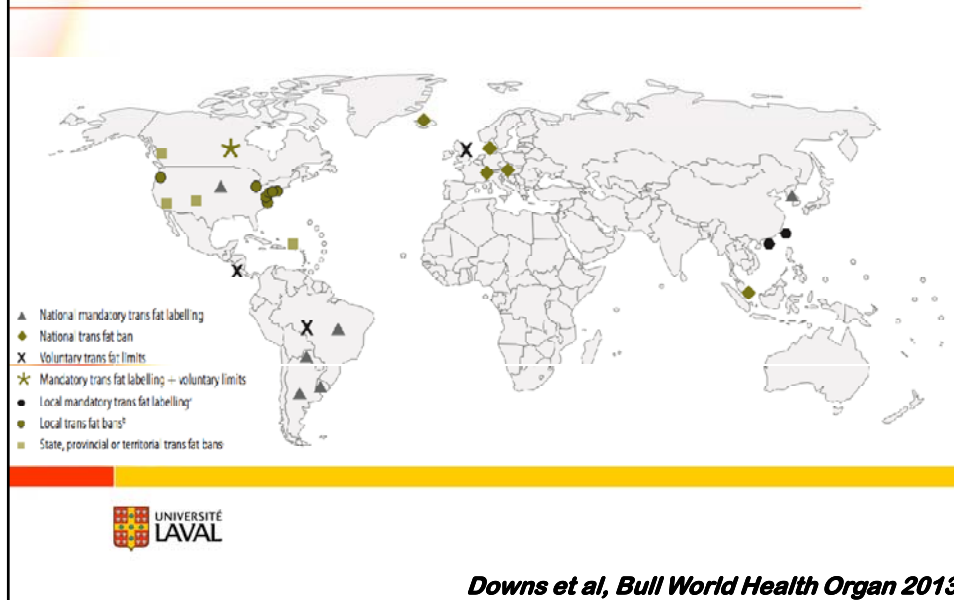


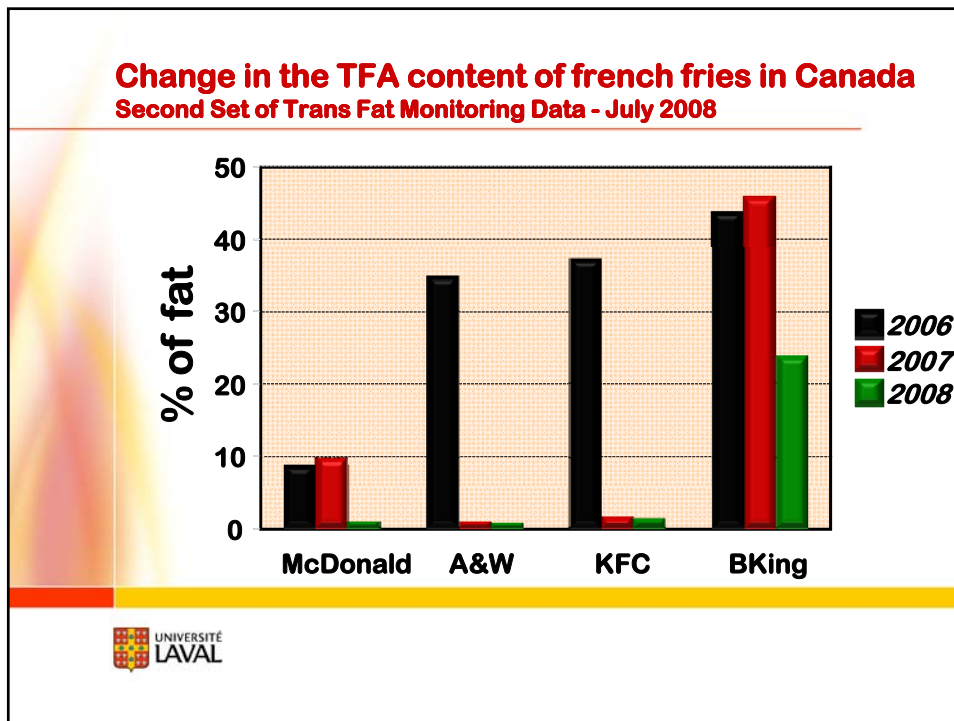
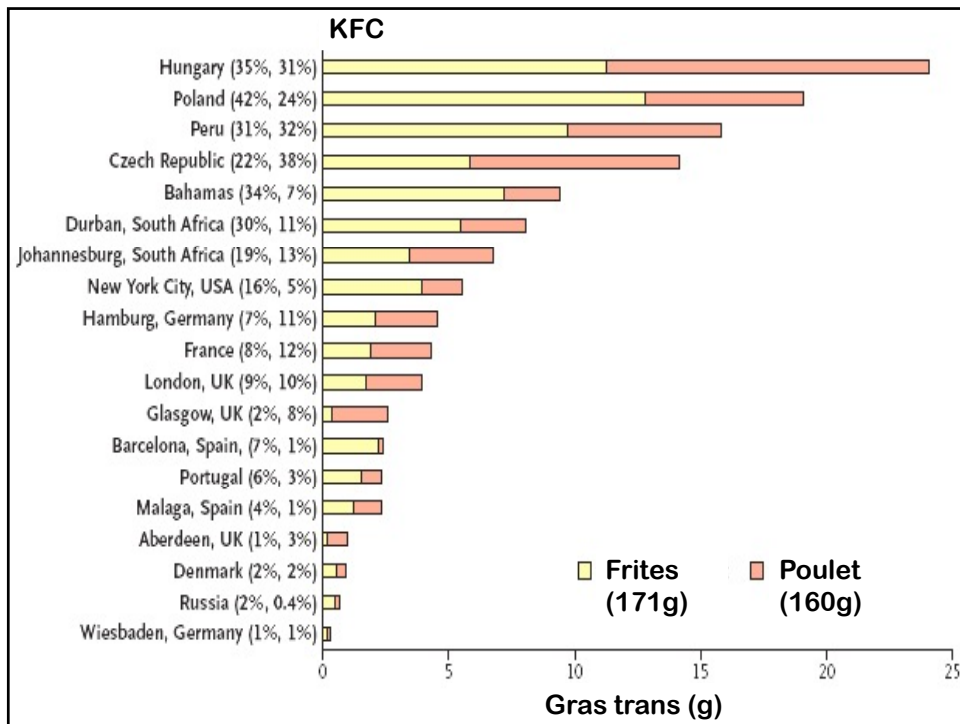
Environnements favorables



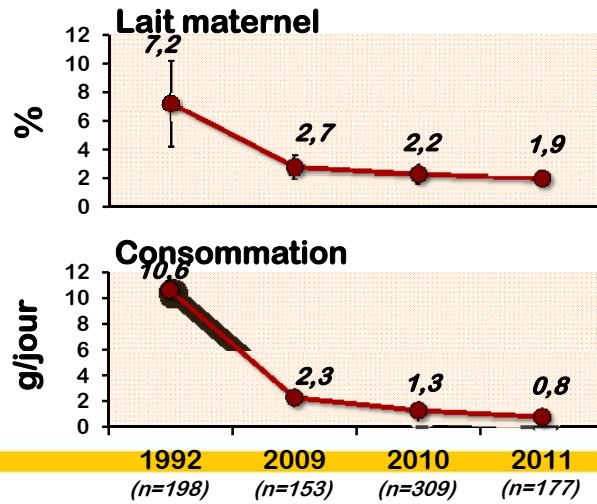


Trans fat policies around the world 2005–2012

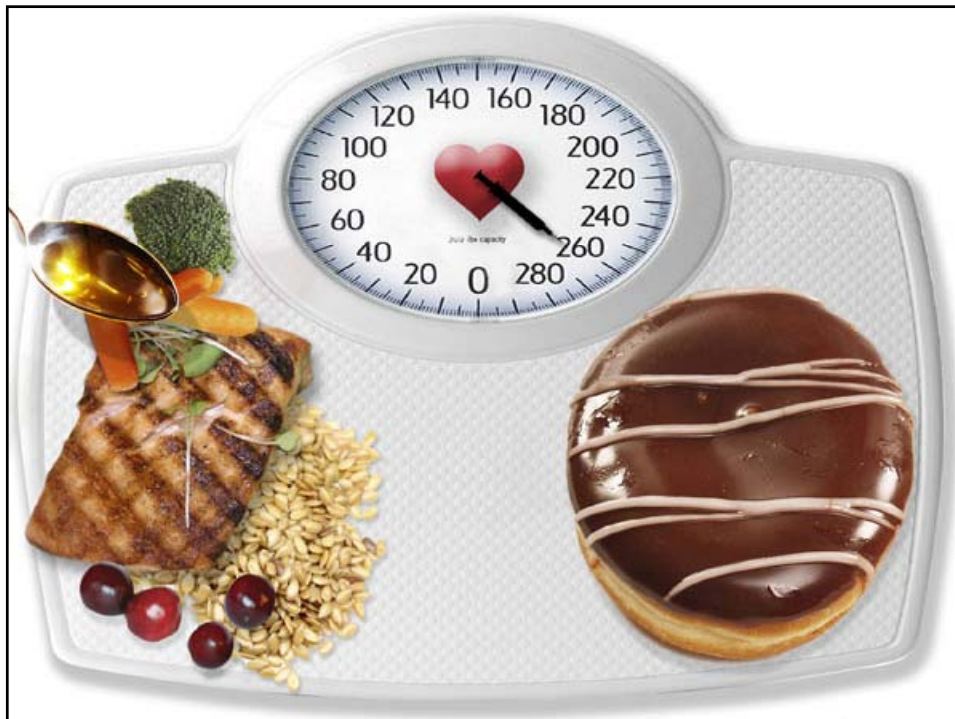


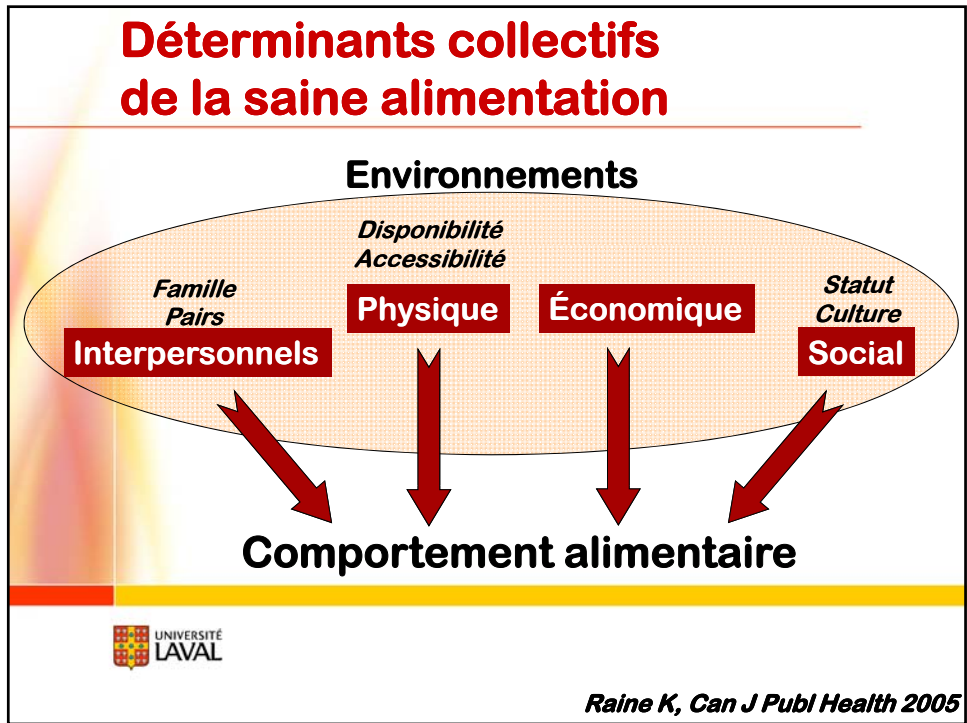
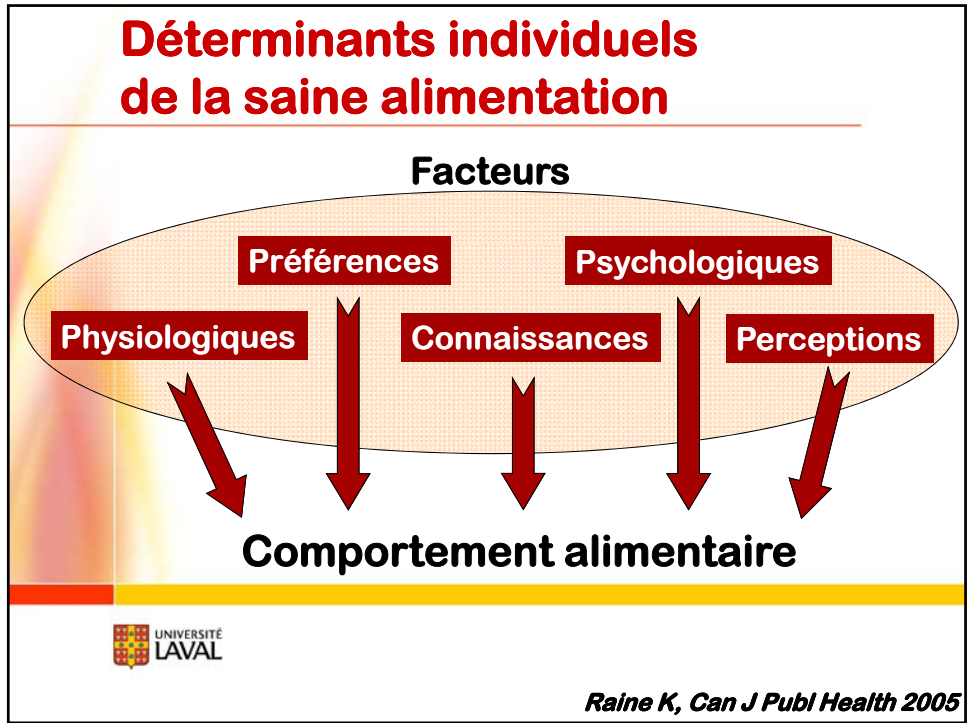


Trans fat- Canada



Chen et al, Lipids 1995
Ratnayake et al, AJCN 2014





Conclusions

- Mettre trop d'accent sur le poids peut s'avérer dommageable
- Mettre trop d'accent sur un/des nutriments spécifiques s'est avéré infructueux
- Miser sur l'environnement...



