

Translating research evidence to enable actions for promoting healthy eating and obesity prevention

Traduire les résultats de la recherche pour permettre des actions de promotion d'une alimentation saine et de prévention de l'obésité



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"More and more patients are going to the Internet for medical advice. To keep my practice going, I changed my name to Dr. Google."

"De plus en plus de patients se tournent vers Internet pour obtenir des conseils médicaux. Pour continuer à exercer, j'ai changé mon nom en Dr. Google."



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OUTLINE

- Strength of Knowledge Translation
 - *To change clinical outcomes*
 - *To provide population guidelines*
- Healthy Eating
 - *What messaging do we need?*
 - *Role of beans, peas and lentils*
 - *Lowering blood glucose; increase fibre etc.*
- Subliminal curriculum infusion of healthy eating and healthy lifestyles
 - *Definition and components*
- Summary and Recommendations

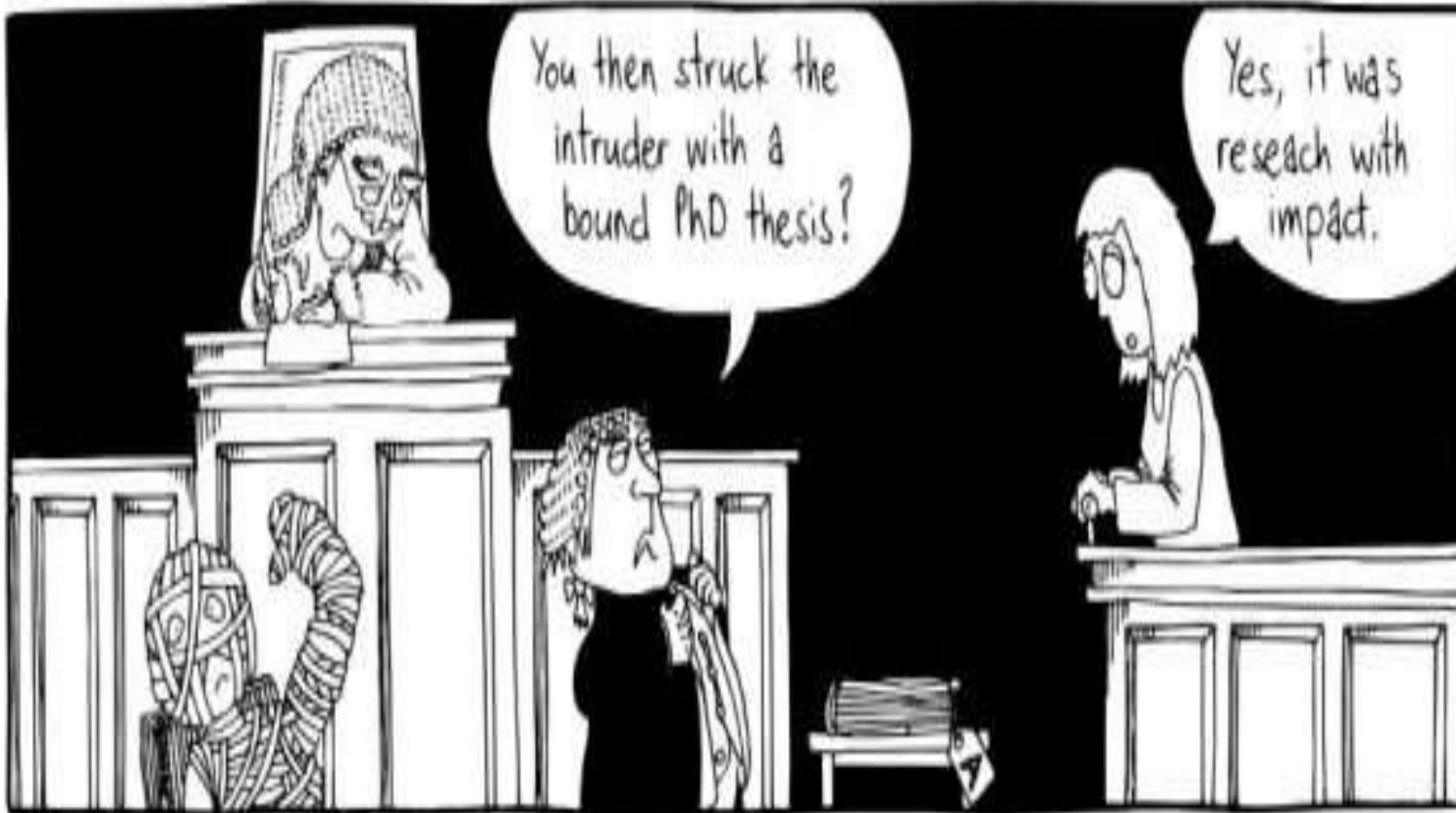
PLAN

- Force de la transmission des connaissances
 - *Modifier les résultats cliniques*
 - *Fournir des lignes directrices pour la population*
- Alimentation saine
 - *De quel message avons-nous besoin ?*
 - *Rôle des haricots, des pois et des lentilles*
 - *Abaisser la glycémie ; augmenter les fibres, etc.*
- Insertion subliminale d'une alimentation et d'un mode de vie sains dans le programme.
 - *Définition et composants*
- Résumé et recommandations



Research Impact through Knowledge Transfer

L'impact de la recherche par le transfert de connaissances



"Vous avez ensuite frappé l'intrus avec une thèse de doctorat?"

"Oui, c'était une recherche avec impact."

Knowledge Transfer in improving management of severely malnourished children

Transfert de connaissances pour améliorer la prise en charge des enfants souffrant de malnutrition sévère

Proceedings of the Nutrition Society (1987), 46, 53-58 53

Free radicals in the pathogenesis of kwashiorkor

By M. H. N. GOLDEN* and D. RAMDATH, *Wellcome Trace Element Research Group, Tropical Metabolism Research Unit, University of the West Indies, Kingston 7, Jamaica*

The skeletal spectre of the marasmic child clearly results from a lack of intake of the bulk nutrients. It can be easily and consistently reproduced in any convenient species of experimental animal.

In stark contrast, the other major form of malnutrition, kwashiorkor, has only once been convincingly reproduced in experimental animals. Coward & Whitehead (1972) produced oedema, fatty liver, skin lesions, hair discoloration and friability, hypoproteinaemia and mental changes in baboons by feeding the animals exactly same diets that children with kwashiorkor received in Uganda. The authors



Research Review (1989), 2, 20-49

NON-HAEMATOLOGICAL ASPECTS OF IRON NUTRITION

D. D. RAMDATH AND M. H. N. GOLDEN
Wellcome Trace Element Research Group, Tropical Metabolism Research Unit, University of the West Indies, Kingston, Jamaica

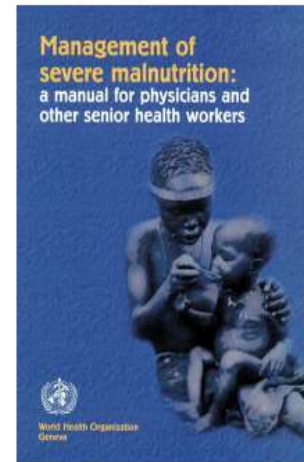
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OUTCOME: KNOWLEDGE TRANSLATION

Evidence base for rational interventions to promote health

Resuscitate
Repair
Replete



Developing Dietary Guidelines for the Caribbean

Élaboration de directives diététiques pour la Caraïbe

SUMMARY OF DIETARY INTAKE STUDIES IN FIVE CARIBBEAN COUNTRIES

DIETARY INTAKE	BDOS	JAM	GUY	MONS	TRT
ENERGY (kcal)	1698/ 2002	2324; 2320/2966	2738/ 3191	2227/ 2454	1831/ 2326
PROTEIN (g)	70/86	102	83/89		60/76
FAT (g)	49.7/49.3	66			62/70
CHO (g)	245/277	328	373/440		264/343
FIBRE (g)		29; 23/31			18/23
% FAT CAL	26/22	33/32	32	29	30/27
%CHO CAL	58/55	58/59	55	55	57/59
%PROTEIN CAL	16/17	12/13	12	16	13/13

ESTIMATING DIETARY INTAKES AMONG CARIBBEAN POPULATIONS

Dan Ramdath PhD., FACN
Honorary Professor – UWI
Research Scientist - AAFC

WORKSHOP TO REVIEW RDA AND POPULATION NUTRIENT GOALS FOR THE CARIBBEAN
2-3 December 2013, Kingston, Jamaica

WORKSHOP TO REVIEW RECOMMENDED DIETARY ALLOWANCES AND POPULATION NUTRIENT GOALS FOR THE CARIBBEAN
2-3 December 2013
Courtleigh Hotel & Suites, Kingston, Jamaica

Objectives:

1. Review recommendations for the revision of the Recommended Dietary Allowances (RDAs) for the Caribbean in light of current scientific evidence on the role of energy and nutrients in protection and promotion of human health.
2. Review the Population Nutrient Intake Goals for the Caribbean.
3. Make recommendations for dissemination and use of the RDAs and Population Nutrient Goals.




RNI

Recommended Nutrient Intakes and Population Nutrient Intake Goals for the Caribbean

PAHO   

Healthy eating: what messages do we need?

➤ Healthy Eating

- Eating small amounts of a variety of foods throughout the day

Alimentation saine : quels messages faut-il faire passer ?

➤ Alimentation saine

- Manger de petites quantités d'aliments variés tout au long de la journée.





Healthy Eating in plain sight

Foods from Animals & Alternatives
Limit usage and choose low fat products

Ground Provisions
Eat regularly



Cereals
Eat regularly

Legumes & Nuts
Eat regularly

Fats & Oils
Use very little and always choose low fat products

Fruits & Vegetables
About 1/2 of the day's food should be chosen from this group

Une alimentation saine à la vue de tous

Aliments d'origine animale et alternatives
Limiter la consommation et choisir des produits à faible teneur en matières grasses

Légumes
Mangez régulièrement



Céréales
Mangez régulièrement

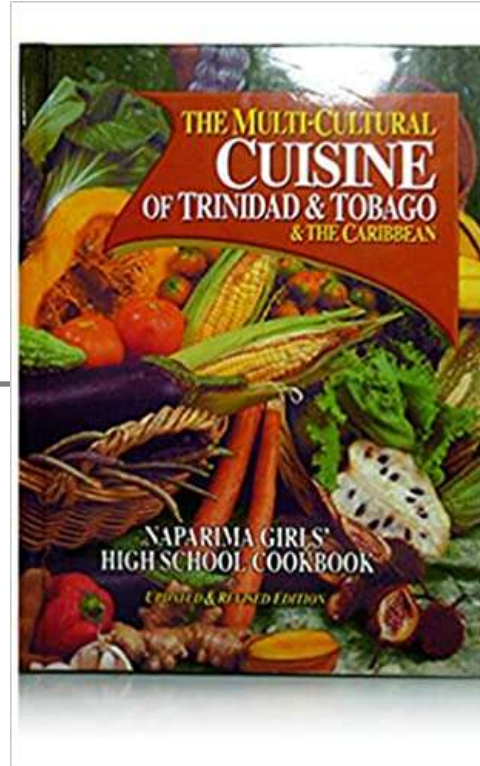
Légumineuses et fruits à coque
Mangez régulièrement

Graisses et Huiles
Utilisez très peu et choisissez toujours des produits à faible teneur en matières grasses

Fruits et Légumes
Environ 1/2 de la nourriture de la journée doit être choisie dans ce groupe.

Healthy Eating ...Nutrition Literacy

Alimentation saine
...Connaissances en
matière de nutrition



FRONT-OF-PACKAGE WARNING LABELING

Front-of-package warning labeling is a simple, practical and effective tool to inform the public about products that can harm health and help guide purchasing decisions



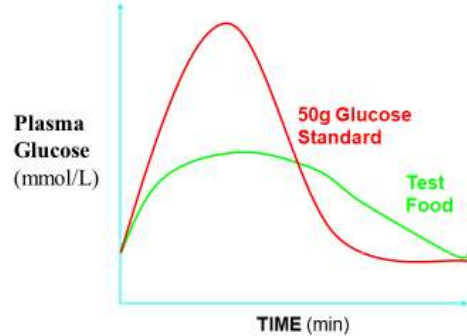
SUR LE DEVANT DE L'EMBALLAGE - L'ÉTIQUETTE D'AVERTISSEMENT

L'étiquetage d'avertissement sur le devant de l'emballage est un outil simple, pratique et efficace pour informer le public sur les produits qui peuvent nuire à la santé et aider à orienter les décisions d'achat.

Dietary patterns associated with healthy eating and reduced NCD risk

Modes d'alimentation associés à une alimentation saine et à une réduction du risque de MNT (maladies non transmissibles)

METHOD- for Food Glycaemic Index (GI)



GI Calculation :

$$\frac{\text{AUC for test food}}{\text{AUC for 50g glucose}} \times 100$$

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What is the Glycemic Index?

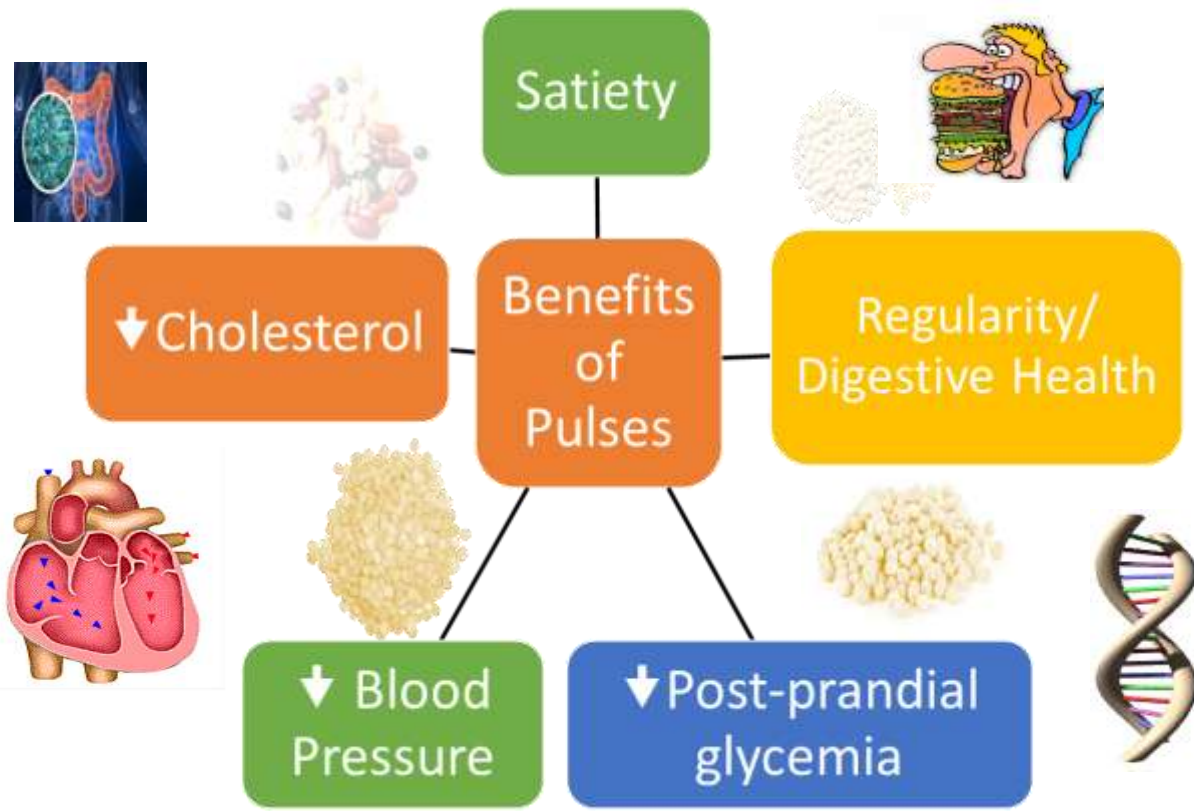
Ranks carbs from 0 to 100 according to how much they cause the blood sugar to rise after they're eaten.

Glycemic Index Indice glycémique

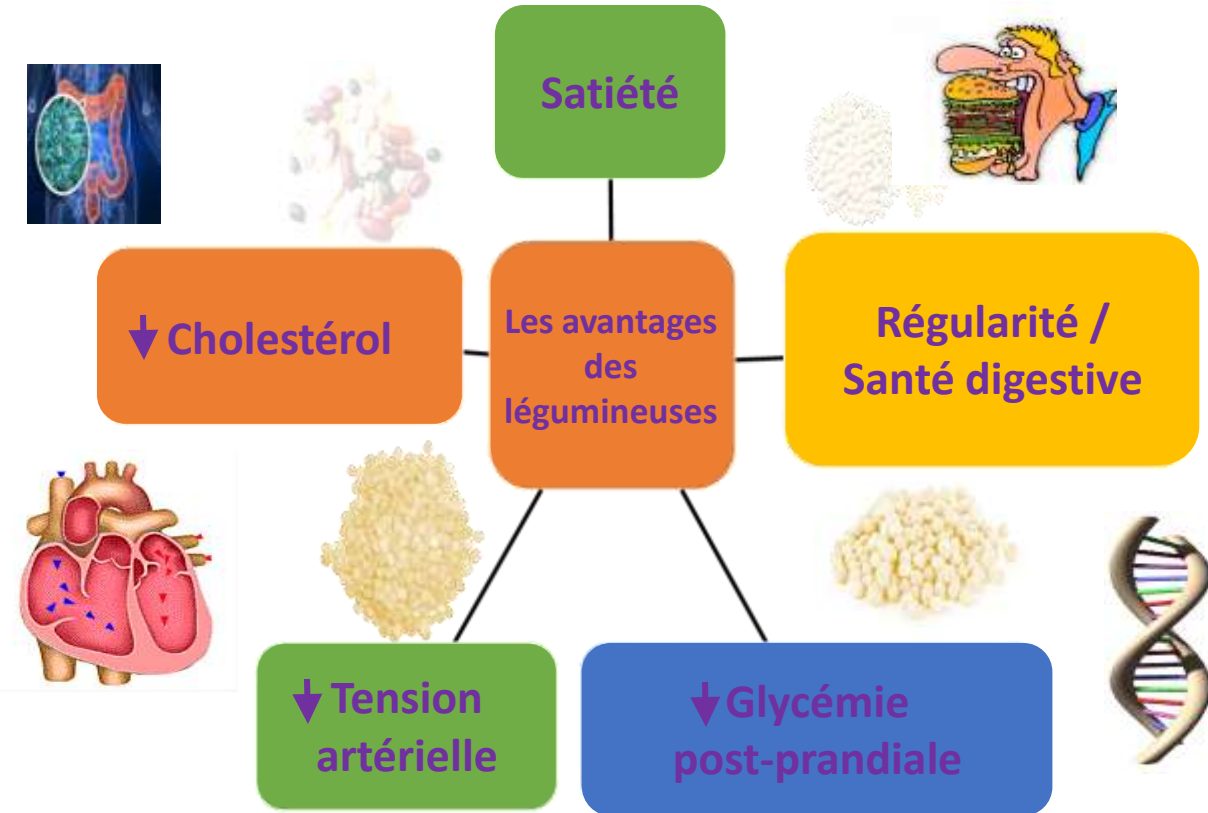
Low GI (<55), Medium GI (56-69) and High GI (70>)

Grains / Starches		Vegetables		Fruits		Dairy		Proteins	
Rice Bran	27	Asparagus	15	Grapefruit	25	Low-Fat Yogurt	14	Peanuts	21
Bran Cereal	42	Broccoli	15	Apple	38	Plain Yogurt	14	Beans, Dried	40
Spaghetti	42	Celery	15	Peach	42	Whole Milk	27	Lentils	41
Corn, sweet	54	Cucumber	15	Orange	44	Soy Milk	30	Kidney Beans	41
Wild Rice	57	Lettuce	15	Grape	46	Fat-Free Milk	32	Split Peas	45
Sweet Potatoes	61	Peppers	15	Banana	54	Skim Milk	32	Lima Beans	46
White Rice	64	Spinach	15	Mango	56	Chocolate Milk	35	Chickpeas	47
Cous Cous	65	Tomatoes	15	Pineapple	66	Fruit Yogurt	36	Pinto Beans	55
Whole Wheat Bread	71	Chickpeas	33	Watermelon	72	Ice Cream	61	Black-Eyed Beans	59
Muesli	80	Cooked Carrots	39						
Baked Potatoes	85								
Oatmeal	87								
Taco Shells	97								
White Bread	100								

HEALTH BENEFITS OF DIETARY PULSES



LES AVANTAGES DES LÉGUMINEUSES ALIMENTAIRES POUR LA SANTÉ



Effect on blood glucose response when lentils are mixed with rice or potato

Replacement of $\frac{1}{2}$ of the available carbohydrates in rice or potato with lentil or yellow pea lowers blood glucose response by ~ 23 to 38%

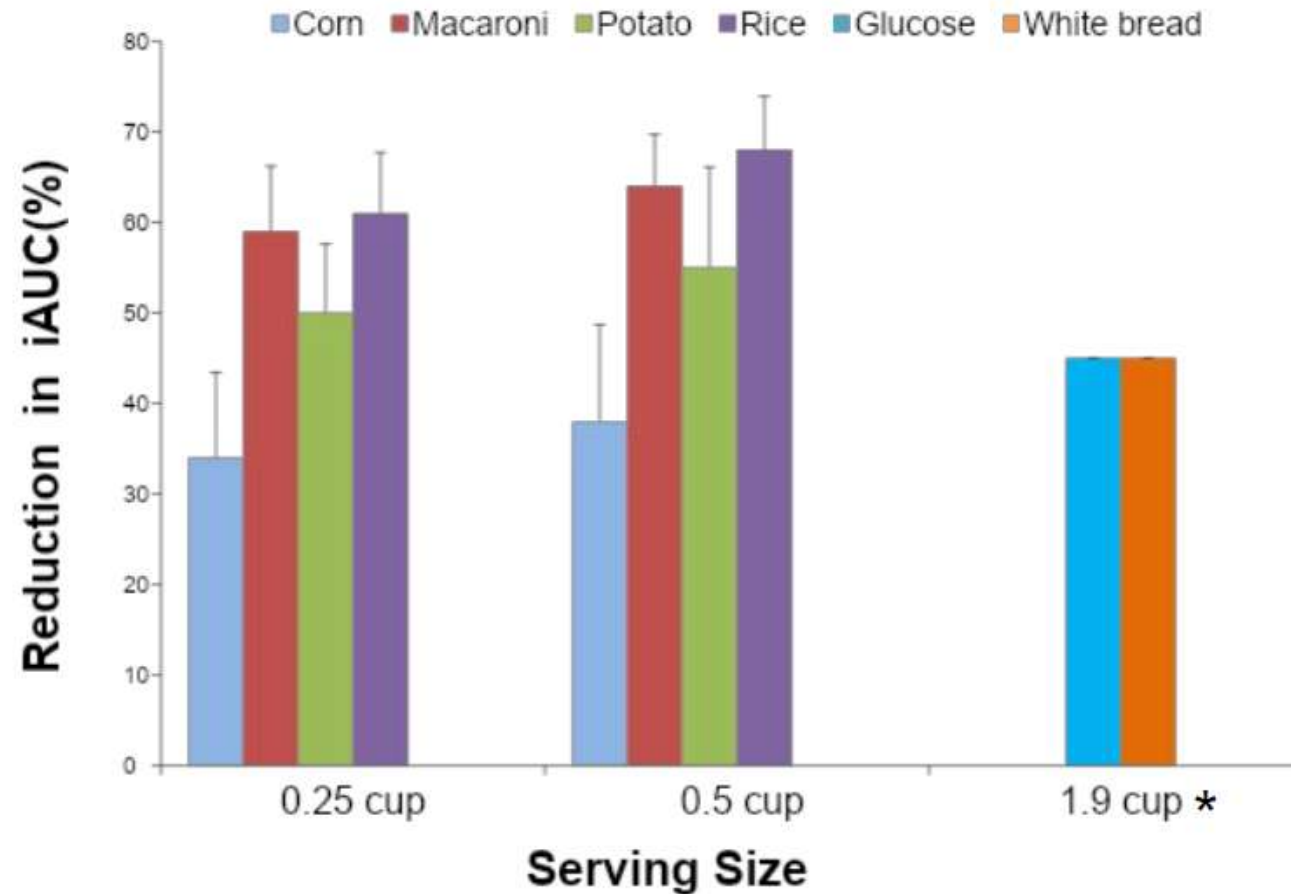
Effet sur la réponse glycémique lorsque les lentilles sont mélangées au riz ou à la pomme de terre

Le remplacement de $\frac{1}{2}$ des glucides disponibles dans le riz ou la pomme de terre par des lentilles ou des pois jaunes réduit la réponse glycémique de ~ 23 à 38% .



Beans and blood glucose response: what is the minimum effective dose?

Haricots et réponse glycémique : quelle est la dose minimale efficace ?



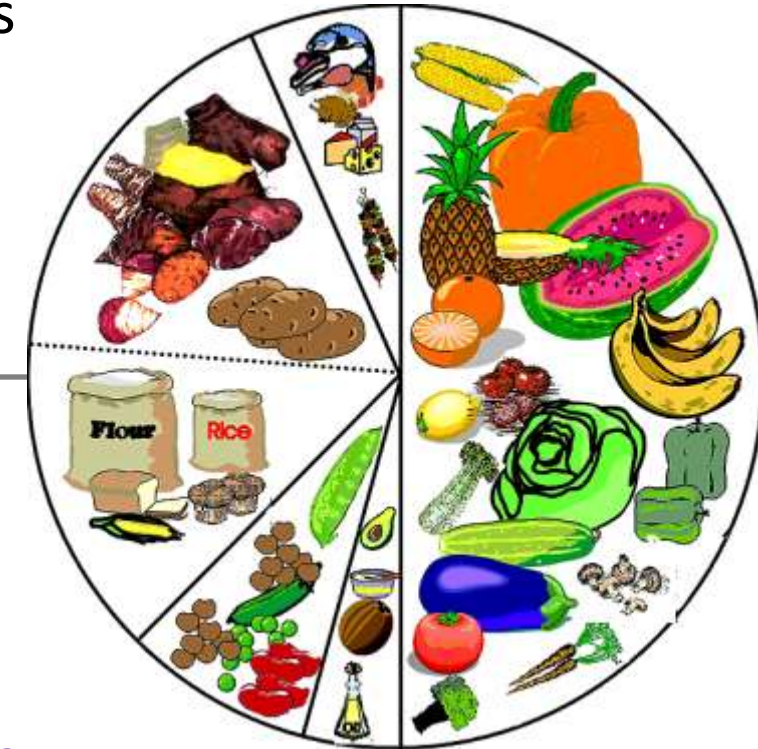
* Taken from:

1. Wong et al., (2009). *J. American College of Nutrition* (28): 543-552.
2. Mollard et al., (2014). *Appl. Physiol. Nutr. Metab.* 39: 849-851.

The Bottom Line

- Eat Less Food
- Cut the FAT: bake or grill
- Eat more fruits and vegetables
- Step out into activity: walk

- Shed the excess weight
- Stop Smoking
- Limit Alcohol Intake



Au bout du compte

- Mangez moins de nourriture
- Réduire les graisses : cuire au four ou au grill
- Mangez plus de fruits et de légumes
- Se mettre en activité marcher

- Perdre les kilos superflus
- Arrêter de fumer
- Limiter la consommation d'alcool

Involving stakeholders in integrating health and nutrition into the elementary school curriculum in the Caribbean

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2. Ministry of Education, Port of Spain, Trinidad & Tobago

3. School of Pharmacy and Nutrition. University of Saskatchewan. Canada

Impliquer les parties prenantes dans l'intégration de la santé et de la nutrition dans le programme des écoles primaires dans la Caraïbe

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2. Ministère de l'Éducation, Port of Spain, Trinidad-&-Tobago

3. École de Pharmacie et de Nutrition. Université de Saskatchewan. Canada



Infusion Of Nutrition And Healthy Lifestyles In The Primary School Curriculum In T&T

Proposal for Curriculum Infusion & Funding

- Program for infusion of nutrition and healthy lifestyles into the primary school curriculum in T&T
- Obtained funding from PAHEF, SSHRC

Workshops with Curriculum Writers

- Workshops led by USASK Content Experts: June 2008
- KAPB Tool developed and validated

Teacher Training Workshops & Videoconference

- Trained teachers from intervention schools on delivery of curriculum content, material preparation – June 2008
- Follow up: videoconference and site visits: Sept 2008; Nov 2008; Jan 2009; May 2009

Implementation and Outcomes Assessment

- Baseline Data Collection – November 2008
- Interim KAPB Assessment -January 2009
- Process Evaluation by Teachers
- Final KAPB Assessment – May/June 2009

Dissemination, KT and Sustainability

- Dissemination KT Workshop – April 2010
- Sustainability and expansion of program

Introduction de la nutrition et des modes de vie sains dans le programme de l'école primaire à T&T

Proposition d'intégration de programmes d'études et de financement

- Programme d'intégration de la nutrition et des modes de vie sains dans le programme de l'école primaire à T&T
- Obtention d'un financement de la PAHEF et du CRSH

Ateliers avec des rédacteurs de programmes scolaires

- Ateliers animés par des experts en contenu USASK : Juin 2008
- Développement et validation de l'outil KAPB

Ateliers de formation des enseignants et vidéoconférence

- Enseignants formés par les écoles partenaires sur la transmission de contenu pédagogique et la préparation de matériel - juin 2008
- Suivi : vidéoconférence et visites sur place : Sept 2008 ; Nov 2008 ; Jan 2009 ; Mai 2009

Mise en œuvre et évaluation des résultats

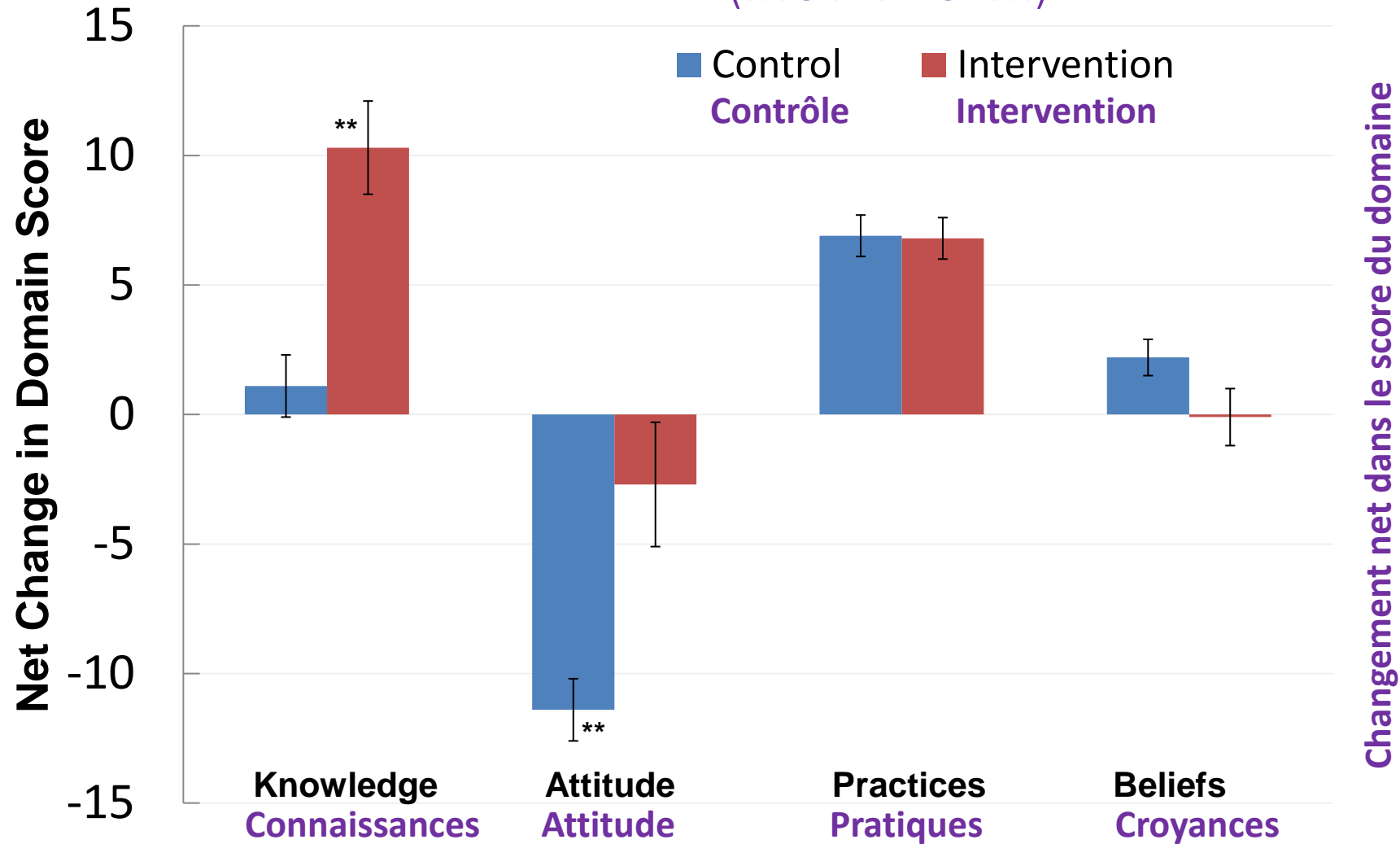
- Collecte de données de base - novembre 2008
- Évaluation intermédiaire du KAPB - janvier 2009
- Évaluation du processus par les enseignants
- Évaluation finale du KAPB - mai/juin 2009

Diffusion, transfert de connaissances (TC) et durabilité

- Atelier de diffusion de l'IC - avril 2010
- Durabilité et expansion du programme

NET SCORES FOR KAPB DOMAINS FOLLOWING INTERVENTION (MEAN±SEM)

SCORES NETS POUR LES DOMAINES DE LA KAPB APRÈS L'INTERVENTION (MOYEN±SEM)



Changement net dans le score du domaine

** p>0.0001 by ANOVA. Control (n=115) Intervention (n=194)

School Food Vendors As Agents Of Change:

Encouraging healthy food choices among primary schools in Dominica, St Kitts, Grenada, Trinidad & Tobago

Les vendeurs de nourriture dans les écoles comme agents de changement :

Encourager les choix alimentaires sains dans les écoles primaires de la Dominique, de Saint-Kitts, de la Grenade et de Trinidad-&-Tobago



Conclusions

- *The Caribbean needs strong children to remain strong*
- *Challenge: “few governments prioritize health over BIG business”*
- *Need political will to implement effective childhood obesity policies*

Conclusions

- *Les pays de la Caraïbe ont besoin d'enfants forts pour rester forts*
- *Défi : "peu de gouvernements priorisent la santé par rapport aux grandes entreprises".*
- *Nécessité d'une volonté politique pour mettre en œuvre des politiques efficaces en matière d'obésité infantile*



THANK YOU

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Rotary
District 7030



**SERVE TO
CHANGE LIVES**

Innovative Agriculture
for secure and safe food



Agriculture Innovante
pour une nourriture sûre et saine.

Presented by:
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Présenté par:
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B4Agro&Food Systems

Rotary
District 7030



**SERVIR POUR
CHANGER DES VIES**

Hybrid Hydroponics

- 4 years of R&D: Own investments and time
- No pumps and even no Greenhouse
- Business model: Every Surinamese a Prosumer!
- More than 100 projects and more than 100 crops tested
- Mission and Vision: Quality, Quantity, Continuity

Hydroponie hybride

- 4 ans de R&D : Investissements propres et temps
- Pas de pompes et encore moins de serre
- Modèle d'affaires : Chaque Surinamais est un consommateur éclairé !
- Plus de 100 projets et plus de 100 cultures testées
- Mission et vision : Qualité, Quantité, Continuité

In pictures



En images



USP's of Hybrid Hydroponics (1)

- Advantages with respect to soil cultivation and / or NFT hydroponics
 - Production of safe, clean, healthy, local, fresh and unsprayed vegetables
 - No pumps and / or electricity needed for operational functioning
 - No greenhouse needed for fruit crops such as tomatoes, peppers, pickles etc.
-

Les Atouts de l'Hydroponie Hybride (1)

- Avantages par rapport à la culture du sol et / ou à la culture hydroponique NFT
- Production de légumes sûrs, propres, sains, locaux, frais et non traités
- Pas de pompes et / ou d'électricité nécessaires au fonctionnement opérationnel
- Aucune serre nécessaire pour les cultures fruitières telles que les tomates, les poivrons, les cornichons, etc.

USP's of Hybrid Hydroponics (2)

- 60% less costs in labor, no more chapping, weeding, hoeing
 - 80% less water consumption, so less energy costs
 - 50% less disease and pests, especially soil-related diseases
 - 100% organic/biological certified crop protection
 - Guaranteed sales and crop/harvest buying
-

Les Atouts de l'Hydroponie Hybride (2)

- 60% de coûts de main-d'œuvre en moins, plus besoin de sarclage, de désherbage, de binage
- 80 % de consommation d'eau en moins, donc moins de coûts énergétiques
- 50% de maladies et de parasites en moins, notamment les maladies liées au sol
- Protection des cultures certifiée 100% biologique
- Ventes garanties et achats de cultures/récoltes

In pictures



En images



USP's of Hybrid Hydroponics (3)

- More efficient and effective with fertilizer consumption
 - Higher crop harvest yield, due to lower plant failure
 - Lower start-up costs due to Low Tech Innovation
 - Faster scaling up possibilities, due to locally available materials
 - Complete customized training and guidance from seeds2sales
-

Les Atouts de l'Hydroponie Hybride (3)

- Meilleure efficacité et performance avec la consommation d'engrais
- Meilleur rendement des récoltes, du fait de la réduction des défaillances des plants
- Coûts de démarrage plus faibles en raison de la faible technicité de l'innovation
- Possibilités d'extension plus rapides, grâce aux matériaux disponibles localement
- Formation et conseils personnalisés complets de seeds2sales

USP's of Hybrid Hydroponics (4)

- 24/7 Aftersales guidance via B4 WhatsApp for B4 Outgrowers
 - Local headquarters and experimental R&D station
 - B4 training program, Up-Grade Trainings at R&D station
 - Proven Frugal Innovation Low Tech Innovation
 - [B4Agro&Food Systems Track record Facebook](#)
-

Les Atouts de l'Hydroponie Hybride (4)

- Assistance après-vente 24h/24 et 7j/7 via B4 WhatsApp pour les cultivateurs B4.
- Siège local et station expérimentale de R&D
- Programme de formation B4, formations de haut niveau à la station de R&D
- Innovation Economique avérée Innovation à Faible Technicité
- [B4Agro&Food Systems Bilan Facebook](#)

In pictures



En images



SDG Scan B4AFS 1of2



	<p>Goal 1: End poverty in all its forms everywhere</p> <p>B4Agro&FoodSystems educate people to be self-sufficient and self-supportive in a sustainable sector. Our main drivers are Sustainability, Innovation and Diversity.</p>
	<p>Goal 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture</p> <p>B4Agro&FoodSystems saves sweet water and preserve the soil with their Hybrid Hydroponic Systems and gives people a chance to feed the world with very much needed greens and nutrition's.</p>
	<p>Goal 3: Ensure healthy lives and promote well-being for all at all ages</p> <p>B4Agro&FoodSystems is specialized in greens with healthy nutrition's and vitamins as needed daily.</p>
	<p>Goal 4: Ensure inclusive and quality education for all and promote lifelong learning</p> <p>B4Agro&FoodSystems pillars are education, entrepreneurship and evolution of mankind. By teaching, learning, coaching, guiding and education we provide generations lifelong learning and earning.</p>
	<p>Goal 5: Achieve gender equality and empower all women and girls</p> <p>B4Agro&FoodSystems are for all people, man and women because of the ease of doing it there are no limitations to participate.</p>
	<p>Goal 6: Ensure access to water and sanitation for all</p> <p>B4Agro&FoodSystems is saving up to 80% water in comparison to traditional soil farming and so preserving natural sweet water reservoirs.</p>
	<p>Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all</p> <p>B4Agro&FoodSystems are easy to combine with solar and wind energy and other types of sustainable energy forms to set up our B4 Mini Farms, but first of all we use no electricity at all in our operations.</p>
	<p>Goal 8: Promote inclusive and sustainable economic growth, employment and decent work for all</p> <p>B4Agro&FoodSystems is a real example of decent work for all with a sure sustainable economic growth for a large number of people.</p>
	<p>Goal 9: Build resilient infrastructure, promote sustainable industrialization and foster innovation</p> <p>B4Agro&FoodSystems developed an innovative green growth system for greens to be further industry processed or be eaten just as fresh leafy greens.</p>

SDG Scan B4AFS 2of2



	<p>Goal 10: Reduce inequality within and among countries</p> <p>B4Agro&FoodSystems gives people of all layers of society an equal chance based upon their own ambitions.</p>
	<p>Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>B4Agro&FoodSystems fits right in "global" concepts as sustainable city farming.</p>
	<p>Goal 12: Ensure sustainable consumption and production patterns</p> <p>B4Agro&FoodSystems decreases the global "footprint" of production and consumption by bringing these factors all in one place, so minimal transport between them.</p>
	<p>Goal 13: Take urgent action to combat climate change and its impacts</p> <p>B4Agro&FoodSystems has a set of USP's that have a direct positive effect on the environment and our global climate challenges</p>
	<p>Goal 14: Conserve and sustainably use the oceans, seas and marine resources</p> <p>B4Agro&FoodSystems uses only environmentally friendly crop protectors, so no negative effects of effluents to rivers and oceans are contributed.</p>
	<p>Goal 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p> <p>B4Agro&FoodSystems has a compact type of farming whereas little space is needed versus traditional soil farming.</p>
	<p>Goal 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</p> <p>B4Agro&FoodSystems stands for availability for all, which safeguards abundance for all and therefore safety for all.</p>
	<p>Goal 17: Strengthen the means of implementation and revitalize the global partnership for sustainable development</p> <p>B4Agro&FoodSystems works with all partners on a fair business level to ensure all benefits in a sustainable manner regarding our products and services.</p>

THANK YOU

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MERCI

In pictures



En images

