Food At Work: Workplace Solutions for Malnutrition, Obesity and Chronic Diseases

by
Christopher Wanjek
for the International Labour Organization

The Prudent Prevention Dividend—The Economics and Public Finances of Nutrition-Related Chronic Disease

Championing Public Health Nutrition 2010
Ottawa, Ontario
October 25–26, 2010

Christopher Wanjek, wanjek@post.harvard.edu
Is Food a Luxury?

Hot topics at Korea’s international safety and health meeting…

* fumes
* fires
* noise
* protective equipment
* ergonomics
* food?!

Why was I talking about food?
Sound like a luxury, not a necessity.
Food At Work is about safety:
* low iron means fatigue, poor mental acuity, weakness
* low blood sugar means sleepiness, confusion, blurry vision
* obesity means lack of dexterity, exceeded weight limit for gear

Food At Work is about health:
* short-term: food-poisoning from street vendor; site-wide poisonings
* long-term: malnutrition, obesity, circulatory disease, cancer

Food At Work is about productivity:
* morale, absenteeism, sick days

Just like a chemical spill...
Just like protective equipment...
Causes of Poor Health... Genetic?

✓ heart disease  
✓ stroke  
✓ cancers  
✓ cirrhosis  
✓ renal failure  
✓ diabetes  
✓ obesity  
✓ underweight  
✓ blood iron anemia

What scientists say:

What the news media says:

Gene variants put diabetics at risk of kidney disease

Aug 25 (Reuters) - Some diabetics are at risk of developing chronic kidney disease if they have mutations of a certain gene, a long-term study in Hong Kong has found.

Kidney failure is an important cause of death for people with type 2 diabetes, and ethnic Chinese diabetics are more prone to developing chronic kidney disease than Caucasians.

The finding would help identify diabetes patients prone to developing kidney disease so they could be rigorously monitored and given more intensive preventive treatment, wrote the lead researcher in reply to questions from Reuters.

"Identification of those genetically at risk of developing renal complications can help identify these subjects for intensive management, and also may help to motivate individuals to be more compliant to treatment," wrote Ronald Ma of the Chinese University and Prince of Wales Hospital in Hong Kong.

In a paper published in the Journal of the American Medical Association on Wednesday, Ma and colleagues said they tracked for nine years 1,172 diabetes patients in Hong Kong who were free of kidney disease at the start of the study.
Is it genetics, or is it (no) choice?

Main Street, USA

Afghanistan
Choice?
Genetics?

Same genes today as a generation ago...

New lifestyle:
high-calorie, highly processed foods
and minimal activity
Proactive Approach

*Food At Work* is about opportunity -- use the workplace as the point of intervention (hey, just like schools).

*Food At Work* is about solutions -- meal plans that fit a variety of budgets.

*Food At Work* is about choice -- offering workers healthy food alternatives.
Workplace Nutrition Concerns

workers in poorer nations...
* the agricultural worker: exposed to weather, exposed to chemicals
* the construction worker: builds the cafeterias, but none for himself
* the factory worker: no time for breaks, no money for food

workers in “developed” nations...
* the agricultural worker: exposed to weather, exposed to chemicals
* the construction worker: builds the cafeterias, but none for himself
* the factory worker: lousy, unhealthy (expensive) cafeteria
* the office worker: no cafeteria, few options outside
* the gas station attendant, the retail-store clerk, the night-shift worker, the fast-food worker...
* food at meetings
Why does it matter?
Poor Nutrition Isn't Cheap

Obesity in United States costs US$99.2 billion annually — $51.6 billion direct medical costs; billions in lost productivity (39.2 million days of lost work; 239 million restricted-activity days; 89.5 million bed-days; 62.6 million physician visits).

— Obese workers twice as likely to miss work.
— Obesity accounts for up to 7% total health costs in industrialized countries.
Poor Nutrition Isn't Cheap

**Obesity** in United States costs US$99.2 billion annually — $51.6 billion direct medical costs; billions in lost productivity (39.2 million days of lost work; 239 million restricted-activity days; 89.5 million bed-days; 62.6 million physician visits).

— Obese workers twice as likely to miss work.
— Obesity accounts for up to 7% total health costs in industrialized countries.

**Diabetes** in United States costs US$174 billion annually, nearly as much as all cancers combined.

— Mexico: top killer, US$15.1 billion annually; will bankrupt health system.
— Canada: 9 million (25% of population) with diabetes or pre-diabetes.
Poor Nutrition Isn't Cheap

**Obesity** in United States costs US$99.2 billion annually — $51.6 billion direct medical costs; billions in lost productivity (39.2 million days of lost work; 239 million restricted-activity days; 89.5 million bed-days; 62.6 million physician visits).

- Obese workers twice as likely to miss work.
- Obesity accounts for up to 7% total health costs in industrialized countries.

**Diabetes** in United States costs US$174 billion annually, nearly as much as all cancers combined.

- Mexico: top killer, US$15.1 billion annually; will bankrupt health system.
- Canada: 9 million (25% of population) with diabetes or pre-diabetes.

**Cardiovascular disease** costs US$329.2 billion in the United States — $199.5 billion in direct costs, $30.9 billion for morbidity, and $98.8 billion for mortality.

- Canada: declining but still 30% of all deaths; CAN$22.2 in morbidity.
Obesity Trends* Among U.S. Adults  
(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1985

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person

BRFSS, 1986

No Data <10% 10%–14%
Obesity Trends* Among U.S. Adults

BRFSS, 1987

(*BMI ≥30, or ~30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1988

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1989

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1990
(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults
BRFSS, 1991
(*BMI ≥ 30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1992

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1993

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1994

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1995

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1996

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1997

(*BMI ≥ 30, or ~ 30 lbs. overweight for 5’ 4” person)

[Map showing obesity trends across the U.S.]
Obesity Trends* Among U.S. Adults

BRFSS, 1998

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 1999

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2000

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BFESS, 2001

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2002

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2003

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2004

(*BMI ≥30, or ~30 lbs. overweight for 5’4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2005

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2006

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
Obesity Trends* Among U.S. Adults

BRFSS, 2008

(*BMI ≥30, or ~ 30 lbs. overweight for 5’ 4” person)
The Cycle of Poverty

but...
Adequate nourishment can raise national productivity levels by 20%.
An Investment in Health

Can any country absorb the health and productivity costs?

Pay now (better nutrition) or pay later?
A food solution is needed...
The Incarnation

International Labour Organization (ILO)
-- Social Protection Sector
François Eyraud, Director
William Salter, Senior Advisor

The ILO Decent Work Agenda
"The primary goal of the ILO today is to promote opportunities for women and men to obtain decent and productive work, in conditions of freedom, equity, security and human dignity."
-- ILO Director-General Juan Somavia
The Plan

Part I (chapters 1-3)
-- why nutrition is important
-- health, safety, productivity

Part II (chapters 4-9)
-- what are worksites doing about it
-- global perspective
-- large and small enterprises

Part III (chapters 10-12)
-- what resources are there
-- checklists, policies, standards, programs
Food Solutions

* Canteen / Cafeteria
  -- healthy, subsidized (i.e. the incentive) foods [$$$]
  -- structural improvements: fans, windows, nice tables, clean & relaxing [$$]
  -- simple, healthy common meal served in bulk [$]

* Meal Vouchers
  -- ideal for variety of settings: no cafeteria space, mobile workers, small companies
  -- spurs urban development (new restaurants); generates tax revenue; eliminated black market
  -- success stories in Brazil, Hungary, France

* Mess Rooms / Kitchenettes
  -- mess rooms cheaper than cafeterias; just a clean room where food is brought in
  -- kitchenettes provide options: cook, refrigerate, relax

* Local Vendors
  -- success stories with farmers markets, safe street foods, relationships with local shops

* Low-Cost Shops
  -- no-profit or low-profit company stores selling bulk grains or other necessities
  -- solutions for the worker and the family

- NO ONE SIZE FITS ALL -
- NO SINGLE SOLUTION FOR ALL BUSINESSES EVERYWHERE -
Husky & Voestalpine Stahl

Husky Injection Molding Systems, Ltd. (Bolton, Ontario)

- mix of blue-collar, white-collar workers
- former CEO Robert Shad is health nut (retired in 2007, sold to Onex)
- impossible to get unhealthy food at the worksite
- wellness program budget US$2.5 million; cafeteria US$480,000
- US$6.8 million savings (health, safety, productivity)
- high morale; lowest absenteeism and accident rates in the industry
San Pedro Diseños

San Pedro Diseños (Guatemala City)
- textile company, low-wage earners
- Guatemala saw dramatic cut in food supply and income starting in 1995
- 60% homes cannot afford required calories and nutrients
- most diets entirely corn tortilla, rice and beans
- most workers at San Pedro weak and sluggish

The Solution
- health evaluation; nutritional education
- free sweet bread in morning (pan dulce, pan de manteca)
- hour-long meal break; subsidized meals; workers pay 1/3 value (US$0.75)
- varied menu with meat and fresh vegetables; 1,100 kcal
- free meal for Saturday workers

The Payoff
- cost company US$640 a day for all 250 employees
- 70% production increase; 20% profit increase
San Pedro Diseños
Meal Vouchers
Brazilian Experience

Programa de Alimentação do Trabalhador (PAT)
- established in Brazil in 1976; goal of providing food to low-wage workers
- doubled the number of restaurants from 1980s to 1990s
- agricultural workers use vouchers for food baskets
- PAT constitutes 1% of GDP; hundreds of thousands of new jobs
- fewer workplace accidents; fewer sick days; productivity up… significantly
- excellent white paper: Prof. José Afonso Mazzon, University of São Paulo

“Is it possible, still, to emulate Brazil?” asked a headline over a column by Mariano Grondona in La Nación.

Argentina’s former president Nestor Kirchner said that Argentina could learn from Brazil because they “showed the results of a serious investment policy.”
Mess Rooms

Anything but a mess...
- simply a big room where food is brought in
- food can be catered; offered for free or at a discount
- zero to minimal food storage; zero to minimal food preparation
- low cost to company; little infrastructure needed

- **Case Study #1: American Apparel in Los Angeles, California...**
  - worked with university; serves boxed lunches prepared externally
  - culturally appropriate, nourishing, inexpensive

- **Case Study #2: MexMode in Atlixco, Mexico...**
  - strike led to major changes at this Korean-owned garment factory
  - five vendors offer meals; only 14 pesos, which is paid by company

QuickTime™ and a decompressor are needed to see this picture.
Kitchenettes

Build it and they will come...
- refrigerators, microwave ovens, small sink
- small investment enables employees to bring, store, cook healthy food

- *Case Study #1: BonCafe in Singapore...*
- management wanted employees not to eat street food
- converted empty room into kitchenette for 60 employees
- saw modest gains in health screening results

- *Case Study #2: Me in Washington, D.C....*
- I make soup on weekend, freeze in five portions
- defrost and heat in office microwave, US$0.50 per serving
- alternative is $7 unhealthy meal
Fruit at Work

Firmafrugt
- Denmark's novel workplace fruit program
- free fruit at work
- 621 workplace in 2001; nearly 10,000 workplaces today
- 96% of employees now eating fruit daily
- candy consumption down
- program has created 40 new companies selling fruit just to companies
Fruit at Work

Workplace Farmers' Markets
- popular in United States
- company invites local farmers onto property
- fresh fruit, vegetables, wholesome breads
- convenient for workers
- workers have little "excuse" not to buy fresh fruits and vegetables
- cost to company is zero
Street Foods

Street Food: Not a Dirty Word
- street food is inexpensive, tasty
- street food can be healthy
- street food can be safe
- South Africa is a good model

Make Street Foods Safe
- invite the vendor on company grounds
- provide clean water, clean utensils
- provide safe food storage, ice
- educate vendors about food safety
- vouchers can be used for "safe" vendors

Make Street Foods Healthy
- educate workers about nutrition
- vouchers can be used for "healthy" vendors
Making a Plan

Do you have space?

Yes
Money to invest?

Yes
Canteen
Bakery
Low-cost shop
Mess room/kitchenette
Healthy vending machines
Farmer's market
On-site food van

No
Money to invest?

Yes
Nice mess hall
Nice kitchenette

No
Money to invest?

Yes
Vouchers

No
Money to invest?

Yes
Street food improvement

No
Talk to local vendors

by S. Yasutake
Conclusions

Workplace meals largely are a missed opportunity.

The workplace, instead of being accommodating, is frequently a hindrance to proper nutrition.

✓ for governments -- a well-nourished population, reduction in health costs, increase in tax revenue from higher productivity

✓ for employers -- nutrition is an issue of productivity, absenteeism, morale, sickness, safety

✓ for the social good -- feeding our fellow man is what makes us human; eliminating hunger is among the noblest of causes
Merci pour votre temps.

Christopher Wanjek
wanjek@post.harvard.edu

Food at Work available for free download at

Spanish summary at http://www.christopherwanjek.com/foodatwork