

FOOD AT WORK

WORKPLACE SOLUTIONS FOR MALNUTRITION,
OBESITY AND CHRONIC DISEASES



International
Labour
Office
Geneva



CHRISTOPHER WANJEK

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

La alimentación en el trabajo: Una inversión rentable

Montevideo, Uruguay
October 24, 2008

by
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for the International Labour Organization

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Is Food a Luxury?

XVIII World Congress on Safety and Health at Work
- Global Forum for Prevention -

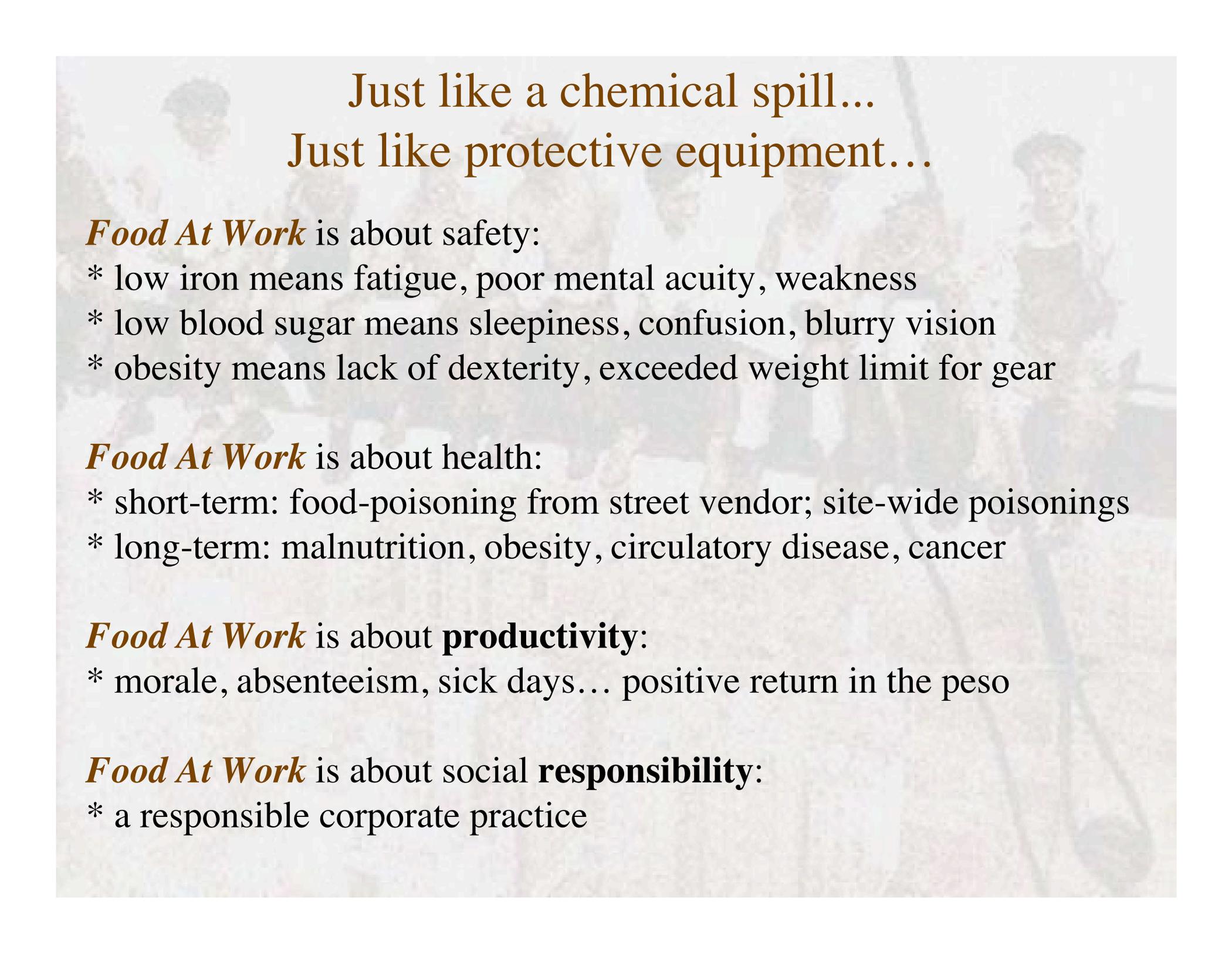
Safety and Health : A Societal Responsibility
June 29 ~ July 2, 2008
COEX Convention Center, Seoul, Korea



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.*



Just like a chemical spill...
Just like protective equipment...

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... positive return in the peso

Food At Work is about social **responsibility**:

- * a responsible corporate practice

Causes of Poor Health... Genetic?

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

What scientists say:

nature.com

nature
neuroscience

Published online: 11 September 2005; | doi:10.1038/nn1548

Agouti-related peptide-expressing neurons are mandatory for feeding

Eva Gropp¹, Marya Shanabrough², Erzsebet Borok², Allison W Xu³, Ruth Janoschek¹, Thorsten Buch⁴, Leona Plum^{1, 5}, Nina Balthasar⁶, Brigitte Hampel¹, Ari Waisman⁷, Gregory S Barsh³, Tamas L Horvath² & Jens C Brüning¹

Multiple hormones controlling energy homeostasis regulate the expression of neuropeptide Y (NPY) and agouti-related peptide (AgRP) in the arcuate nucleus of the hypothalamus. Nevertheless, inactivation of the genes encoding NPY and/or AgRP has no impact on food intake in mice. Here we demonstrate that induced selective ablation of AgRP-expressing neurons in adult mice results in acute reduction of feeding, demonstrating direct evidence for a critical role of these neurons in the regulation of energy homeostasis.

What the news media says:

Newsday **Gene directs eating habits**

BY JAMIE TALAN
STAFF WRITER

September 14, 2005

A single gene controls "Food Central" in the brain, directing the day-to-day activity of a necessary human pastime: Eating.

Now, Yale scientists have proven that the gene, AgRP, makes a protein that feeds brain cells that give orders about when to eat and how much. AgRP had been identified in earlier research as part of the brain pathway involved in appetite, but a range of genetic studies emerged empty-handed when the gene was deactivated early in development. Contrary to what scientists thought would happen, test animals kept eating.

But Tamas Horvath, chairman and associate professor at Yale School of Medicine, didn't give up on the gene. He designed a way to let the gene do its job and then wipe out the entire population of this kind of cell in one fell swoop

Genetics or (no) choice?



Main Street, USA



Afghanistan

Genetics or (no) choice?



Proactive Investment

Food At Work is about opportunity -- using the workplace as the point of intervention.

Food At Work is about productivity -- healthier workers are better workers.

Food At Work is about solutions -- meal plans that fit a variety of budgets, while meeting your social responsibility.

Workplace Food Concerns

Workers all around the world...

- * the agricultural worker – exposed to elements, exposed to chemicals
- * the construction worker – builds the cafeterias, but none for himself
- * the factory worker – lousy, unhealthy or 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... what do they do?
- * food at meetings

Nutritional Concerns in Uruguay... 2008

source: MINISTERIO DE SALUD PUBLICA

INACTIVITY

- Uruguay #1 in South America! Over 60% inactive. Go Uruguay!

OBESITY

- Uruguay #2 in South America!
- 60% overweight, including 24% obese

CIRCULATORY DISEASE

- leading cause of death, 36%
- perhaps highest rate in South America
- 34% with high blood pressure; 33% with high cholesterol



CANCER

- second-leading cause of death, 23%

DIABETES

- affects 7-8% of population; as high as United States; #5 cause of death

IRON ANEMIA:

- concern for women and children

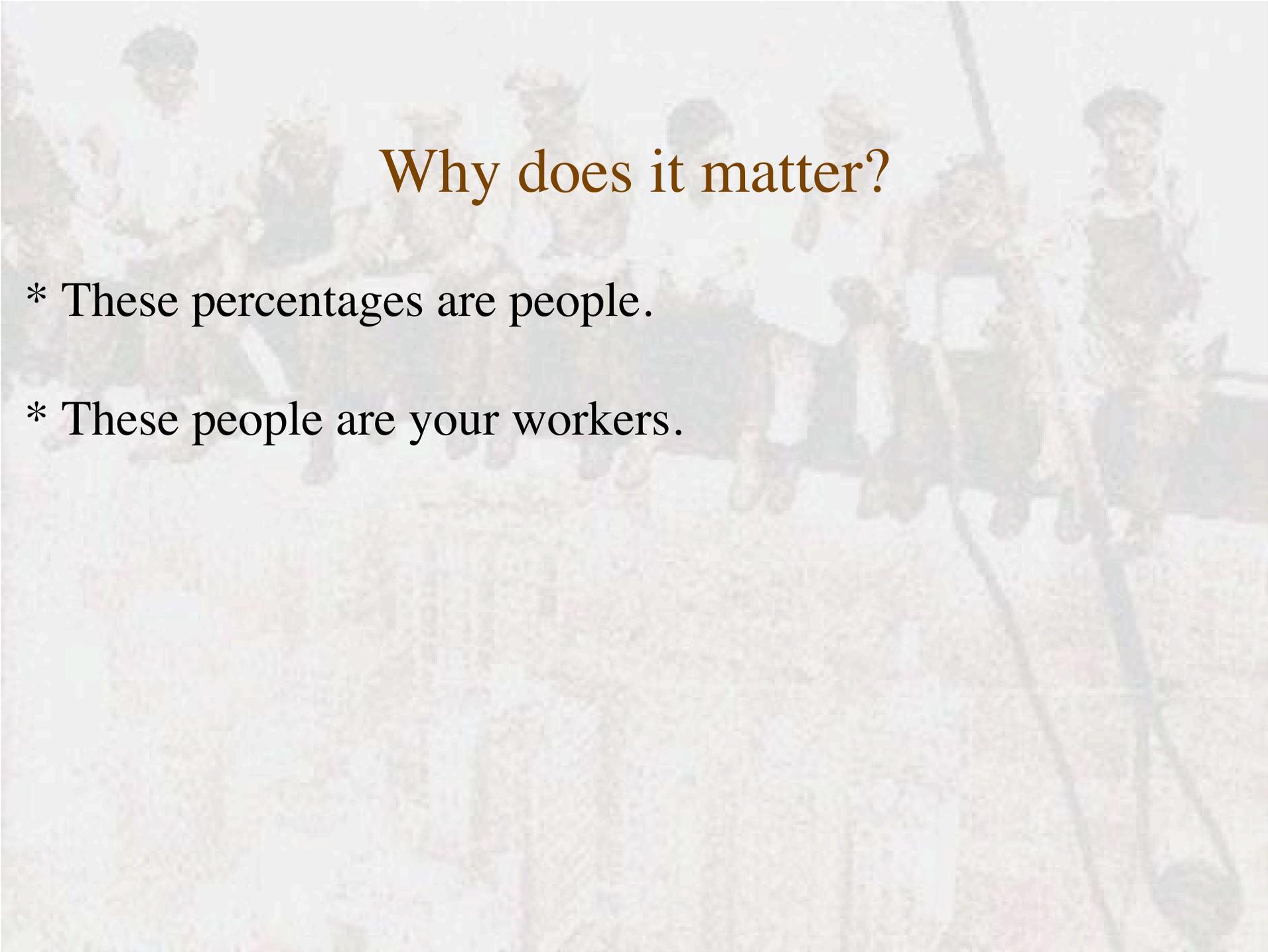
Why does it matter?



A group of approximately ten people, including men, women, and children, are sitting on the ground in a circle. They are wearing traditional, light-colored clothing, possibly made of wool or cotton. The setting appears to be outdoors on a dirt or gravel surface. The image is faded and serves as a background for the text.

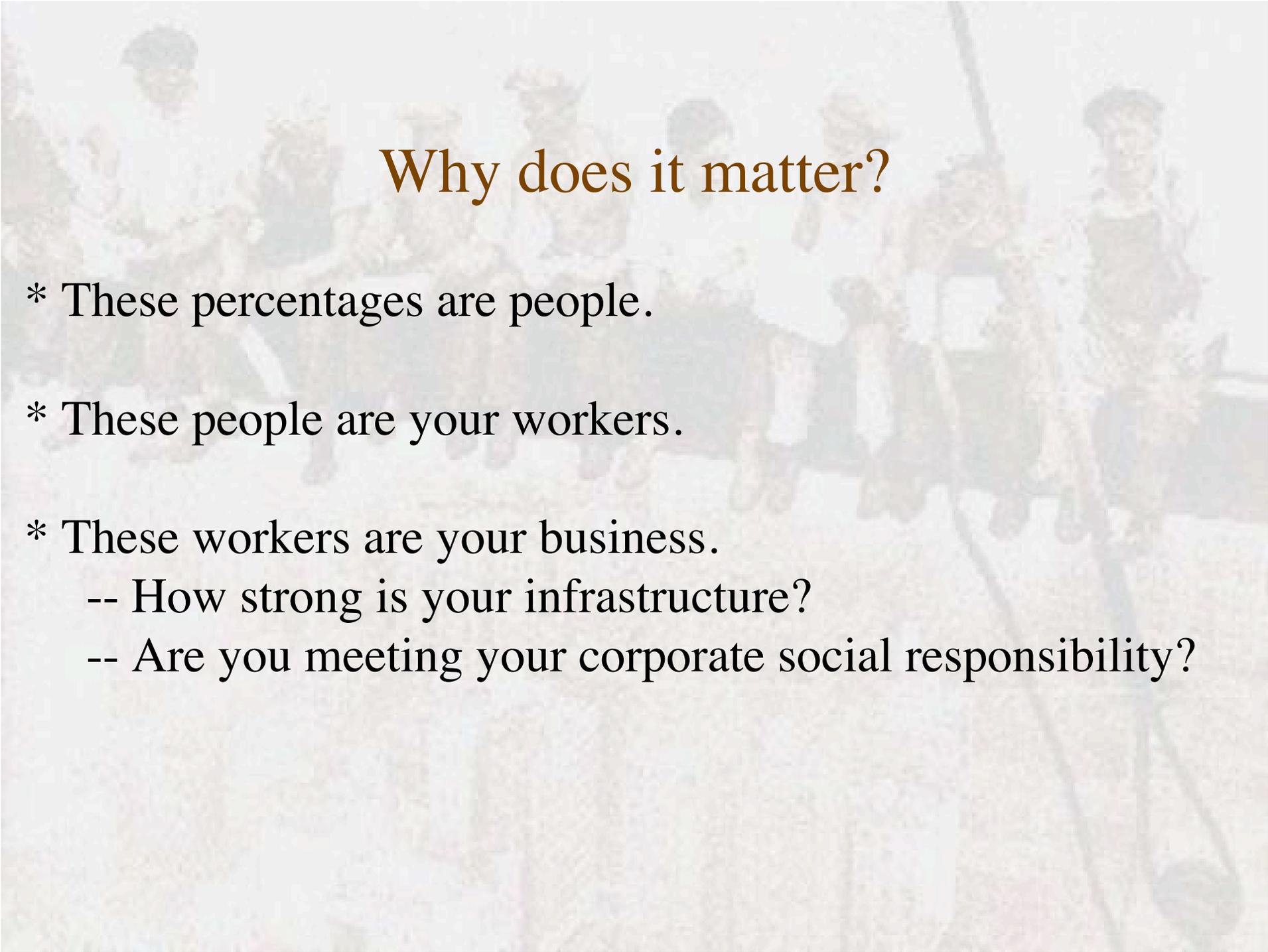
Why does it matter?

* These percentages are people.



Why does it matter?

- * These percentages are people.
- * These people are your workers.



Why does it matter?

- * These percentages are people.
- * These people are your workers.
- * These workers are your business.
 - How strong is your infrastructure?
 - Are you meeting your corporate social responsibility?

Big Picture: 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 2-7% of total health costs in industrialized countries.

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.

Diabetes in United States costs US\$174 billion annually, nearly as much as all cancers combined. Diabetes top killer in Mexico.

- **Uruguay** has second-highest per capita health expenditure, US\$697.
- **Uruguay** pays nearly US\$1 billion in direct and indirect costs for diabetes.

Diet-related diseases contribute to about 46% of the global disease burden and 60% of all deaths worldwide; cardiovascular disease alone amounts to 30% of deaths.

Poor Nutrition Isn't Cheap (cont.)

Iron deficiency anemia affects 2-3 billion people; up to 30% impairment of physical work capacity reported in iron-deficient men and women; 5% productivity loss for light blue-collar work, 17% loss for heavy manual labor.

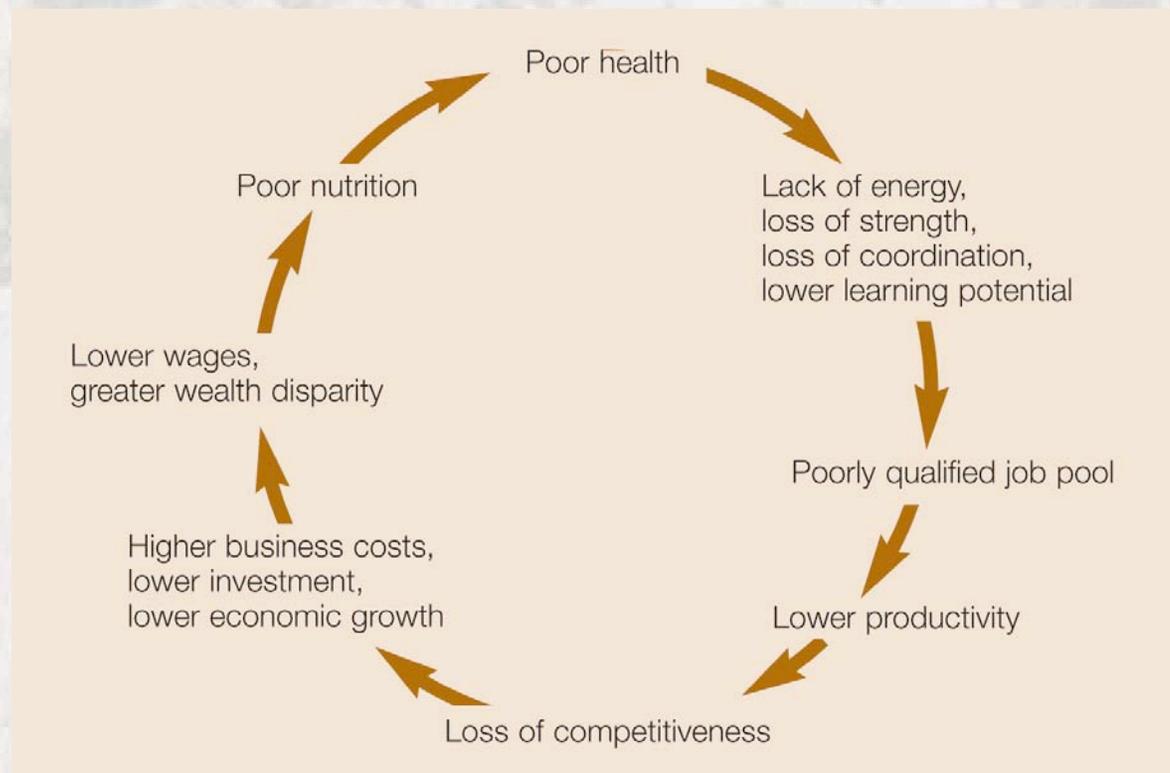
Micronutrient deficiencies mean 2 to 3% loss in GDP; in South Asia, just iron deficiency is a US\$5 billion loss in productivity.

Malnutrition in Bangladesh costs US\$1 billion; country spends \$246 million fighting malnutrition; will lose \$22 billion in productivity over the next 10 years.

Stunting from malnutrition lowers GDP. Adults moderately stunted from childhood micronutrient deficiencies are 2-6% less productive; severely stunted adults 9% less productive.

Diet-related diseases are 22.6% of health care costs in China; 13.9% in India. In Brazil, cardiovascular disease is 20% of health care costs.

The Cycle of Poverty



The Cycle of Prosperity

- * Workplace programs to reduce obesity produces a short-term return on investment of US\$1.17 per dollar spent

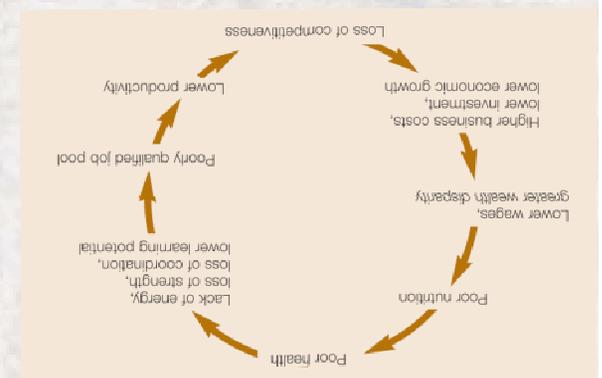
-- Baker et al., *Journal of Occupational & Environmental Medicine*, 50(9):981-990, September 2008

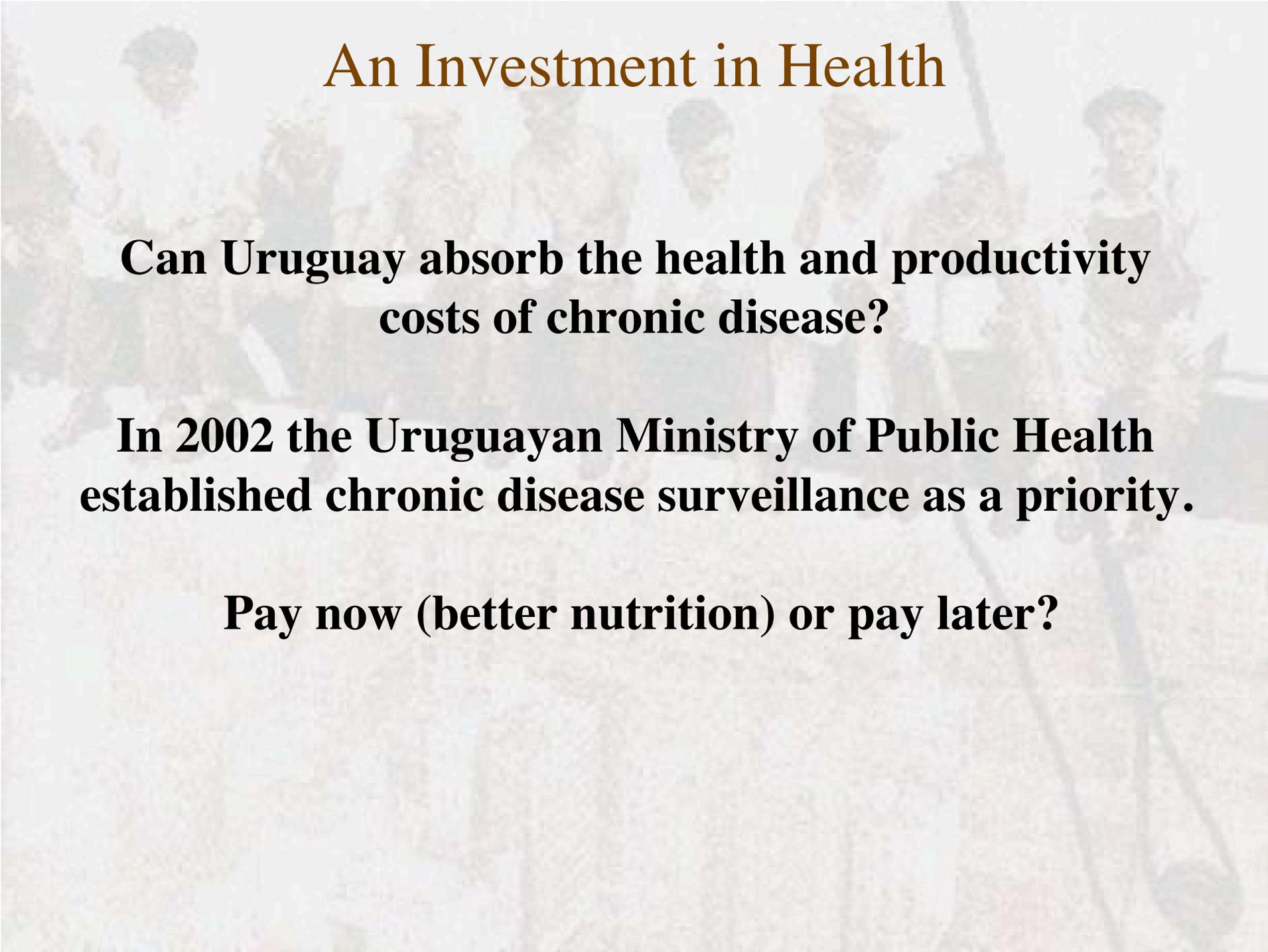
- * Adequate nourishment can raise national productivity levels by 20%.

-- World Health Organization, *Battling iron deficiency anaemia*, 2003

- * 86% of the companies ranked best in the “Great Place to Work” index in Uruguay last year give food benefits to their employees

Churn that wheel the other way...





An Investment in Health

Can Uruguay absorb the health and productivity costs of chronic disease?

In 2002 the Uruguayan Ministry of Public Health established chronic disease surveillance as a priority.

Pay now (better nutrition) or pay later?

A group of approximately ten children are sitting on the ground in a rural, outdoor setting. They are dressed in simple, light-colored clothing. In the foreground, there is a large, textured pile of grain, possibly rice or wheat, which is slightly out of focus. The background shows a simple, open area with some trees and a utility pole. The overall scene suggests a rural, possibly impoverished, environment.

A food solution is needed...

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CHRISTOPHER WANJEK

The Incarnation

Organización Internacional del Trabajo (OIT)
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*

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CHRISTOPHER WANJEK

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 -

Dole & Husky

Dole Food Company, Inc. (California, USA)

- cafeteria food is subsidized; less money than nearby restaurants
- low-fat food; free fruit; no meat!
- workers hated it at first but now love it
- workers saw real progress in weight loss, lower cholesterol, etc.

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

- CEO is vegetarian; healthy 77-year-old man
- wellness program budget US\$2.5 million; cafeteria US\$480,000
- impossible to get unhealthy food at the worksite
- mix of blue-collar, white-collar workers
- 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



Meal Vouchers

* Vouchers: solution for a bustling city

- Zona Metropolitana, Maldonado, Colonia, Paysandú y Salto...
- builds a strong food-service industry
- keeps cities safe with increased pedestrian traffic and commerce
- works best in a diverse "good food" culture

* Vouchers: solution for growing economies

- Hungary and Brazil adopted voucher system to improve health... *and economy*
- better regulation of tax collection; better control of black market
- tax incentives encourage employers; taxing food programs hurts the system
- government ultimately collects more revenue

* Vouchers can target top health concern

- In Brazil, voucher meals must contain a stated amount protein, calories, etc.
- Uruguay can set the rules

Brazilian Experience

Programa de Alimentação do Trabalhador (PAT)

- established in Brazil in 1976; goal of providing food to low-wage workers
- meal must be 1,400 kcal for most workers
- NDpCal (protein quality) must be 6%, comparable to rice and beans

- 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 journal articles: Prof. José Afonso Mazzon, University of São Paulo

- major success in corporate social responsibility

Mess Rooms and Kitchenettes

Mess Rooms

- 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

Kitchenettes

- provide the space, and they will come
- refrigerators, microwave ovens, small sink
- small investment enables employees to bring, store, cook healthy food
- Singapore BonCafe, kitchenette for 60 employees
- management wanted employees not to eat street food
- saw modest gains in health screening results



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



Vegetables 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



5 al Día

Five-a-Day Fruit and Vegetable Program

- WHO: fruit/vegetable consumption can reduce 20-30% of gastrointestinal cancers and 5-12% other cancers worldwide
- FAO and WHO recommend at least 400 grams/day (5-6 servings)
- Uruguayans consume less than 100 grams/day on average!
- 93% of Uruguayans don't eat five servings a day!

- F/V programs active in dozens of countries, including Uruguay (5 al Día)
- 5 al Día: partnership of government, non-governmental organizations, industry
- local contact, Mariano Winograd; <http://www.5aldia.com.ar>



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

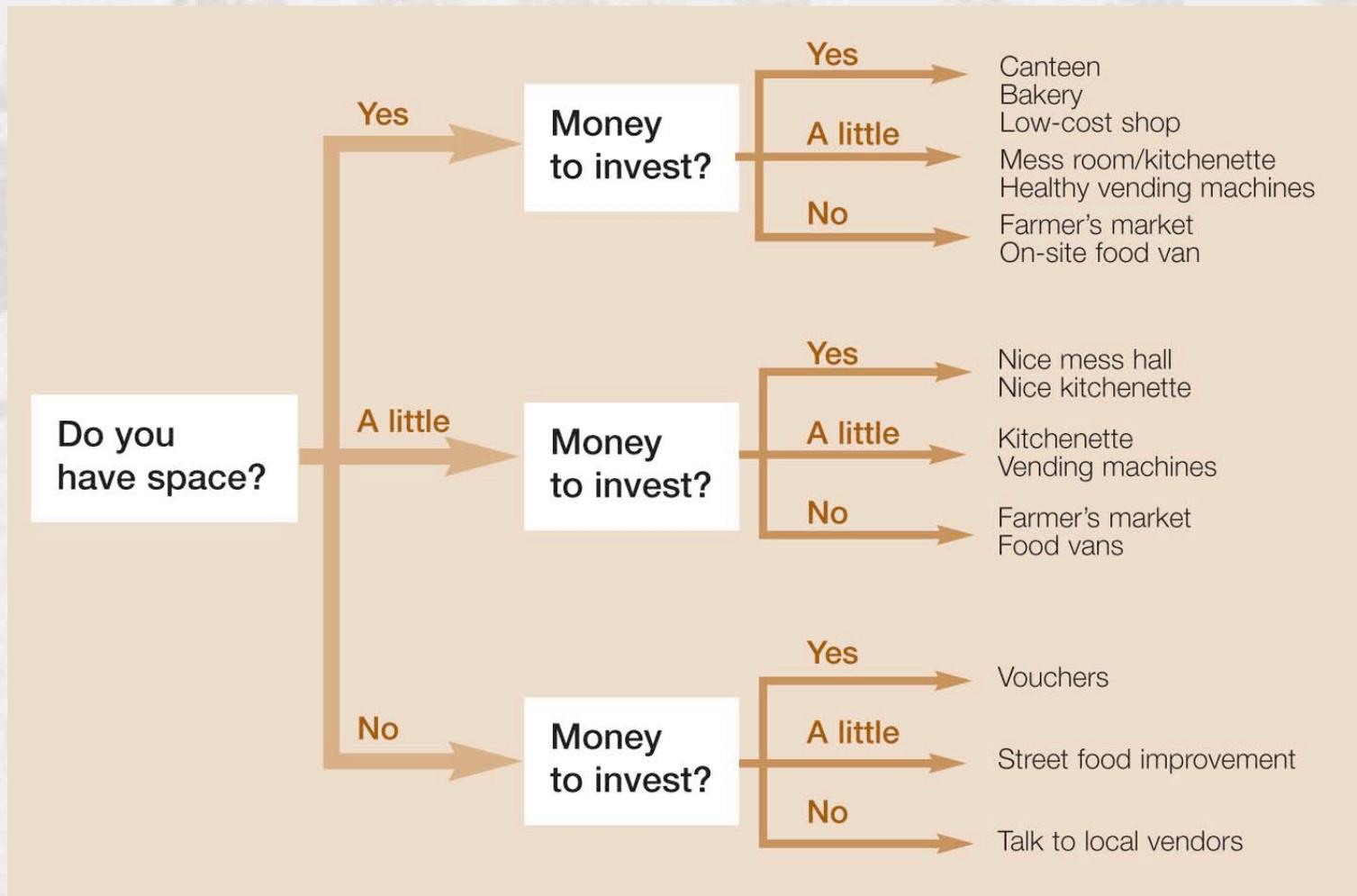
- invite the vendor on company grounds
- provide clean water, clean utensils
- provide safe food storage, ice
- educate vendors about food safety
- vouchers can be used for "safe" vendors

Make Street Foods Healthy

- educate workers about nutrition
- vouchers can be used for "healthy" vendors



Making a Plan



Incentives

Education

- workers need to be taught proper nutrition
- the best plans go hand-in-hand with health screening
- vested interest; will see improvements each month

Pricing

- workers need to afford the meal
- healthy menu, nice atmosphere, high price --> no sales

Time

- workers need time to eat
- healthy menu, nice atmosphere, 20-minute break --> no sales

Exercise

- meal programs more effective with an exercise component
- healthy meal with exercise, synergistic

You Are Not Alone

Food at Work / ILO

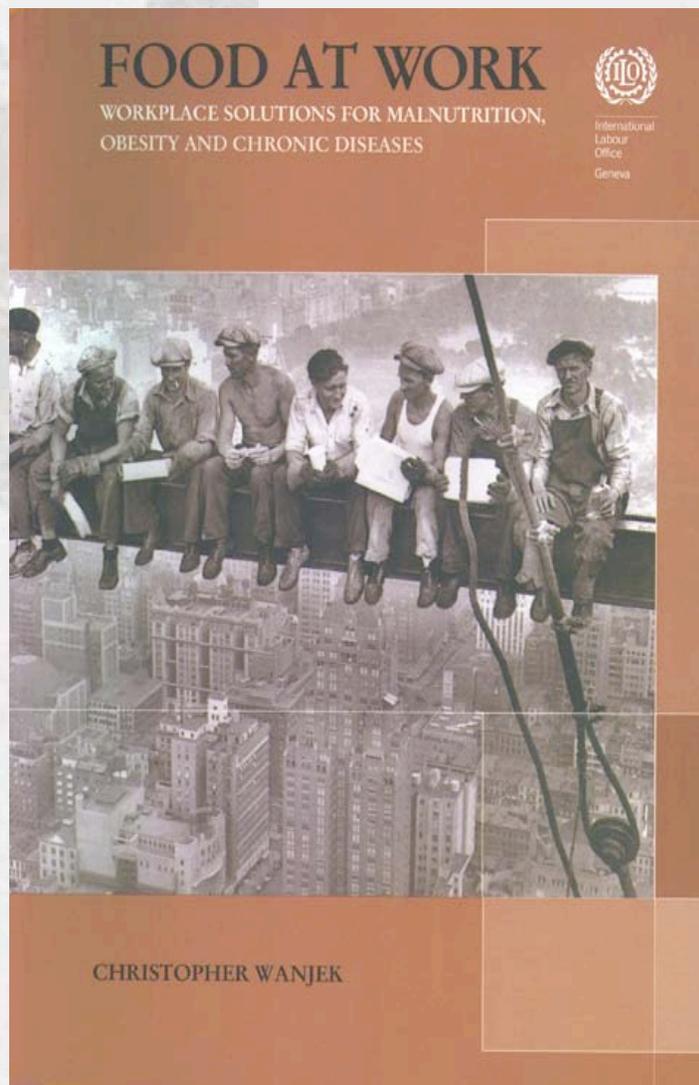
- checklist
- ILO SOLVE program
- Welfare Facilities Recommendation of 1956

WHO, FAO

- Global Strategy for Food Safety
- Codex Alimentarius
- Diet, Nutrition and the Prevention of Chronic Disease

Nutrition Programs

- Alimentación y Equilibrio: international, catering to local customs
- 5 al Día in Uruguay



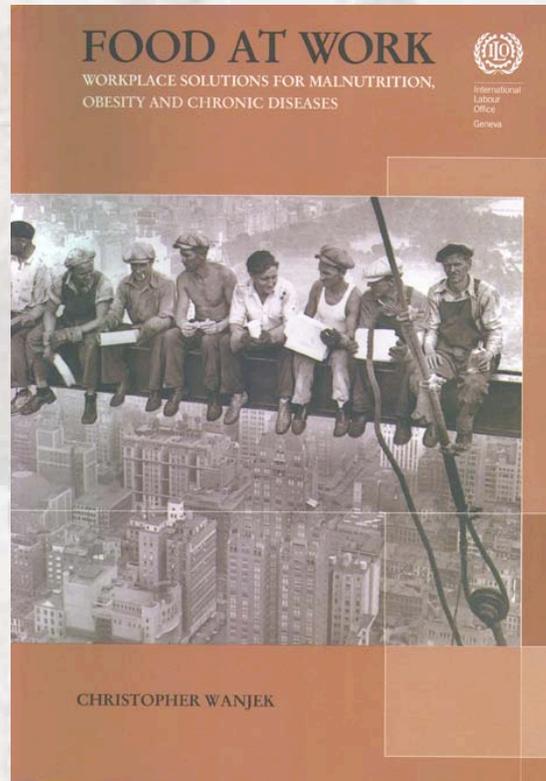
Conclusions

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

Gracias por su tiempo.



Christopher Wanjek
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Food at Work available for free download at
http://www.ilo.org/global/What_we_do/Publications/ILOBookstore/Orderonline/Books/lang--en/WCMS_PUBL_9221170152_EN/index.htm

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