Community-Based Interventions for the Promotion of Healthy Body Weights
ISBNPA Satellite Workshop in Calgary, Alberta, Canada, May 20, 2008

Obesity Prevention in Worksites: Interventions in Context

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Outline

- Why worksites?
- The context of work – a social ecological model
  - Interpersonal
  - Organizational
  - Neighborhood/Community
- Challenges and Opportunities
  - Interventions
  - Evaluations
  - Methodology

Why worksites?

- Reach: 62% of North American adults
- Exposure: More than half of waking hours
- Sustainability: Potential for long term engagement
- Existing channels of communication
- Social support networks

Work and the Cost of Obesity

- Obesity has been associated with
  - Higher absenteeism
  - More accidents
  - Increased health care use
  - Increased health costs/claims
  - Decreased productivity

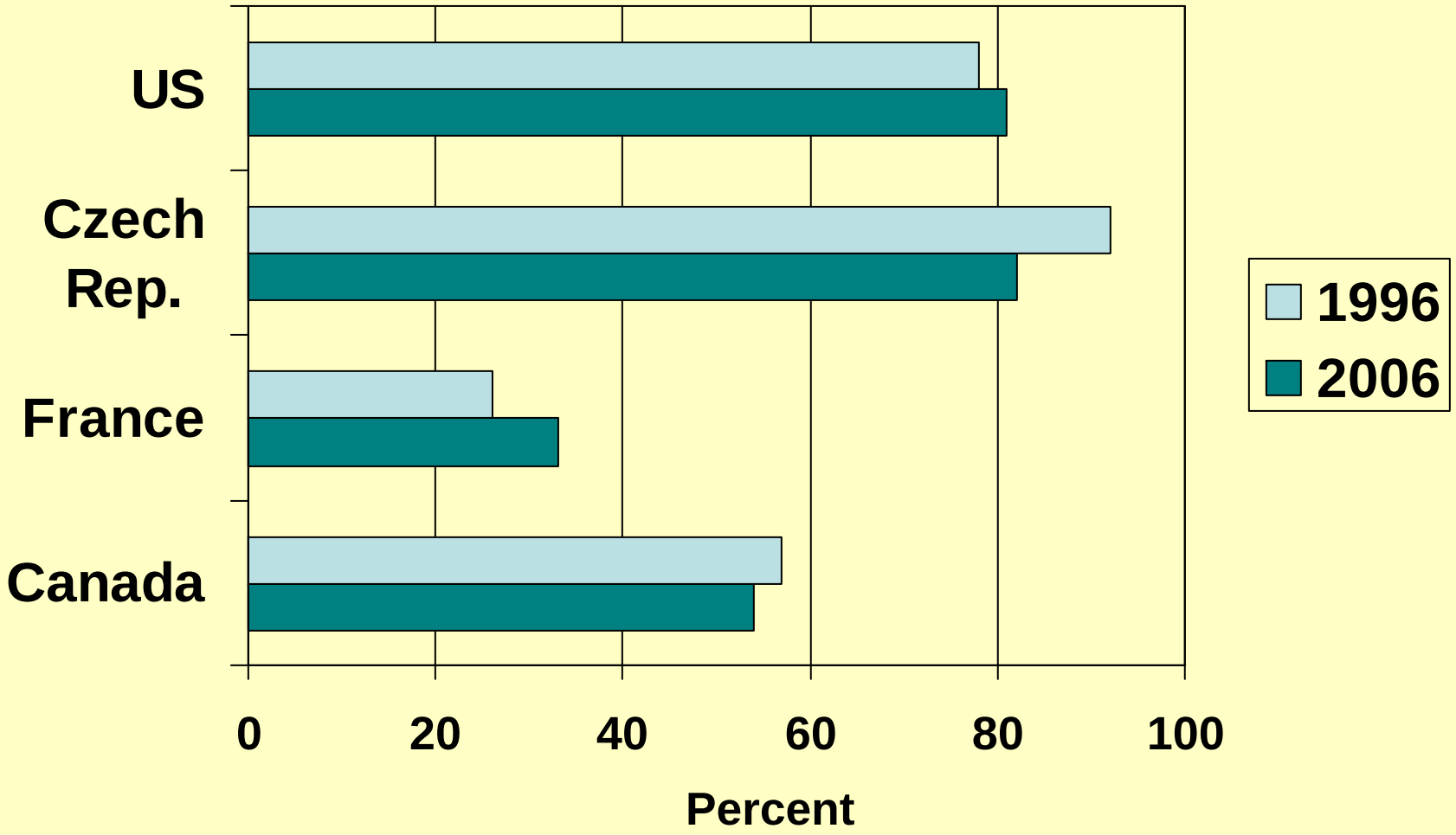
  - ROI for health promotion programs
    - Median $3.14 to $1.00

Wellness Council of America (www.welcoa.org)

Work Conditions and Obesity

- Obesity and weight gain associated with:
  - Long work hours/Overtime work
    (Shields, 2000; Lallukka, 2008; Nakamura, 1998)
  - High work demands (Hellersted,1997)
  - Job title, job status (Netterstrom, 1991; Ball, 2002)
  - High job strain (Wamala, 1997; Brunner, 2007)
  - Work fatigue (Lallukka, 2005)

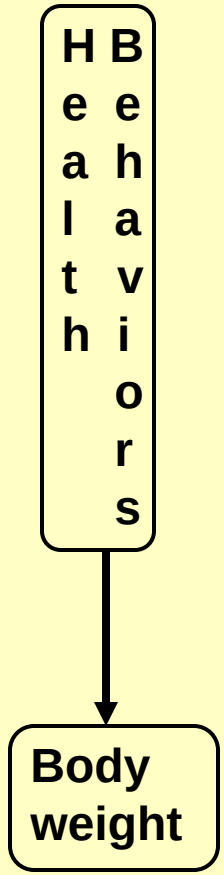
Proportion Working ≥40 Hours/Week



Key Indicators of the Labour Market, 5th ed. International Labour Office, 2007

The context of work: a social-ecological model

Adapted with permission from Sorensen et al. Preventive Medicine 2003
www.sciencedirect.com/science/journal/00917435



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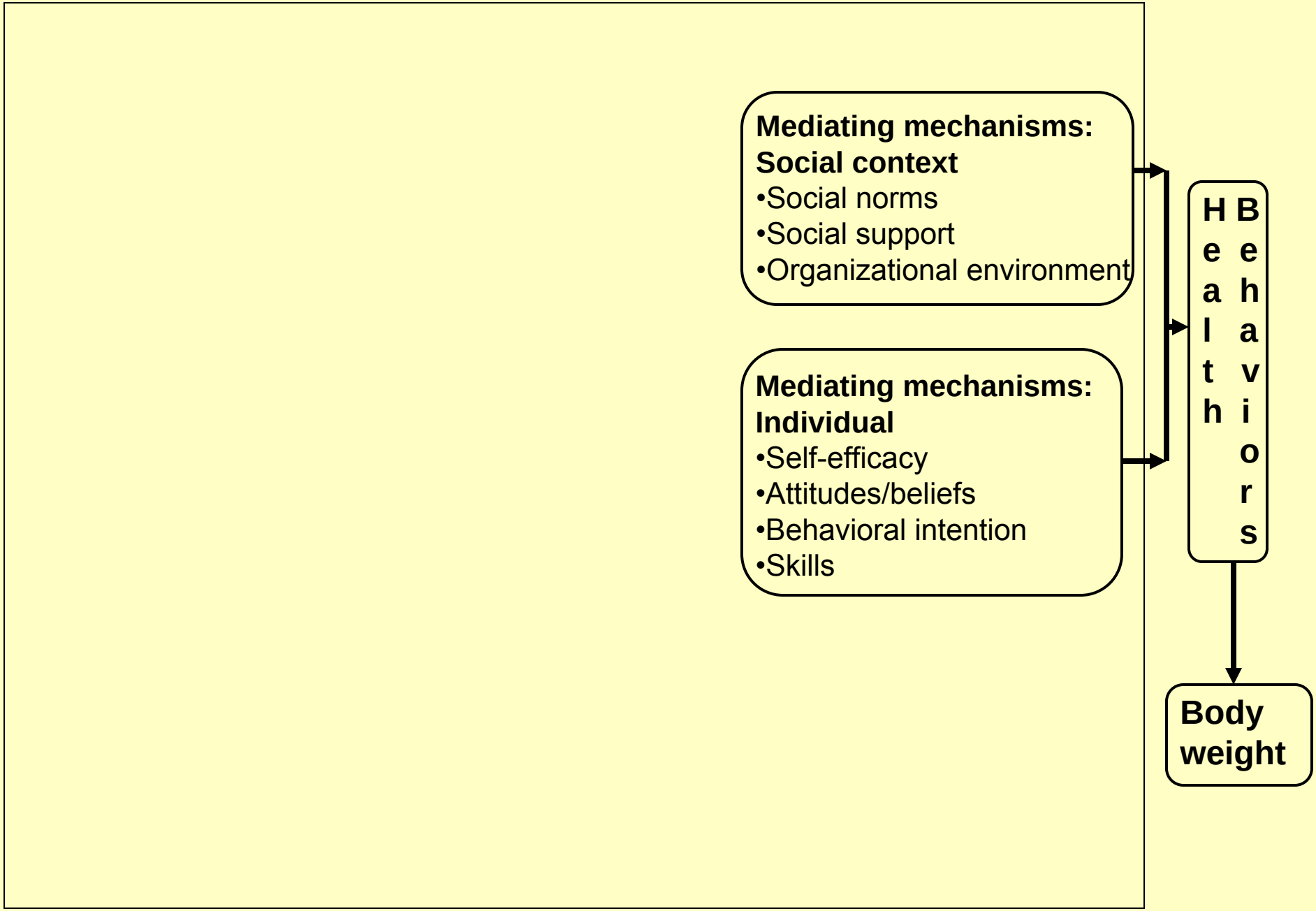

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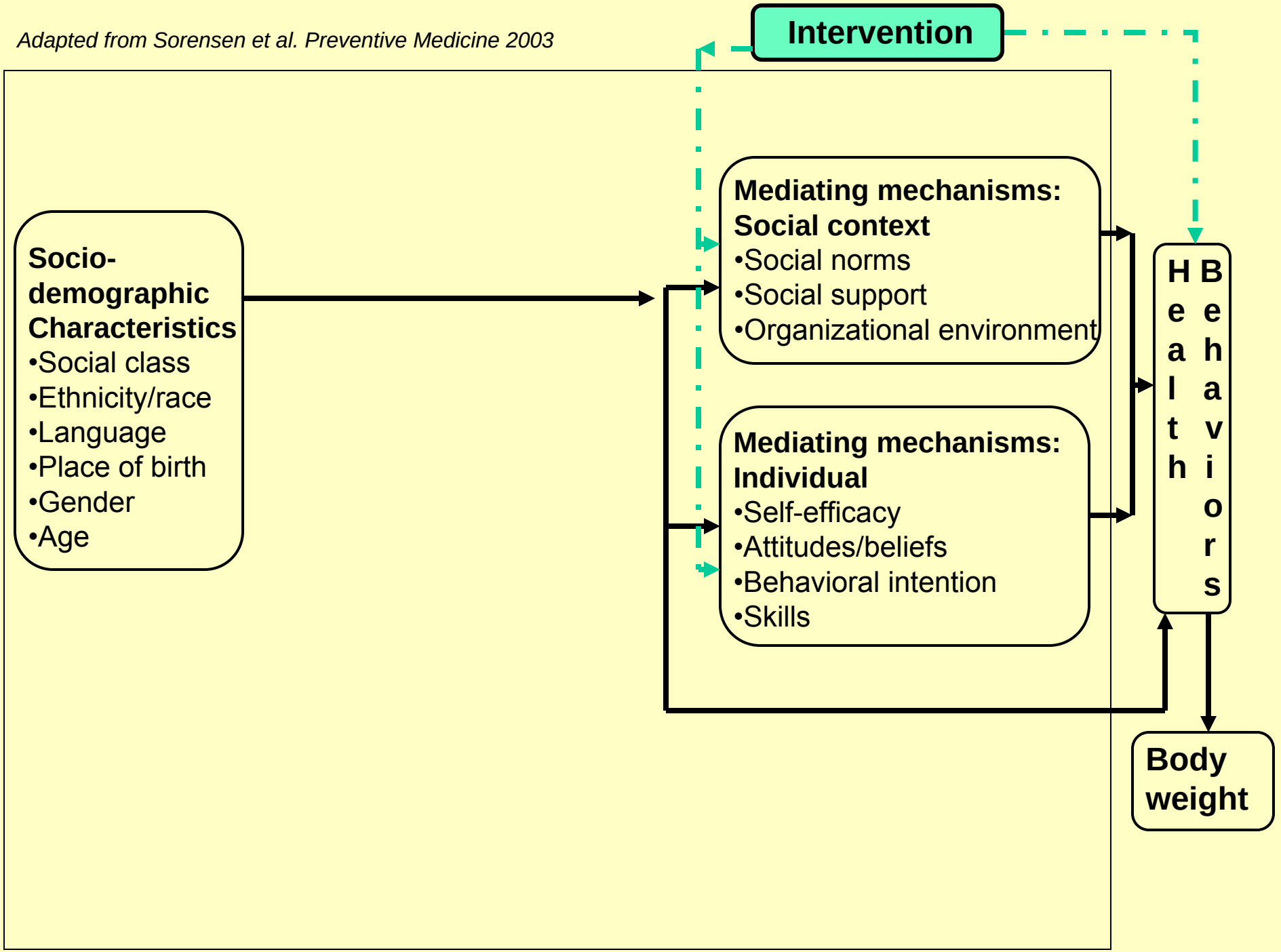

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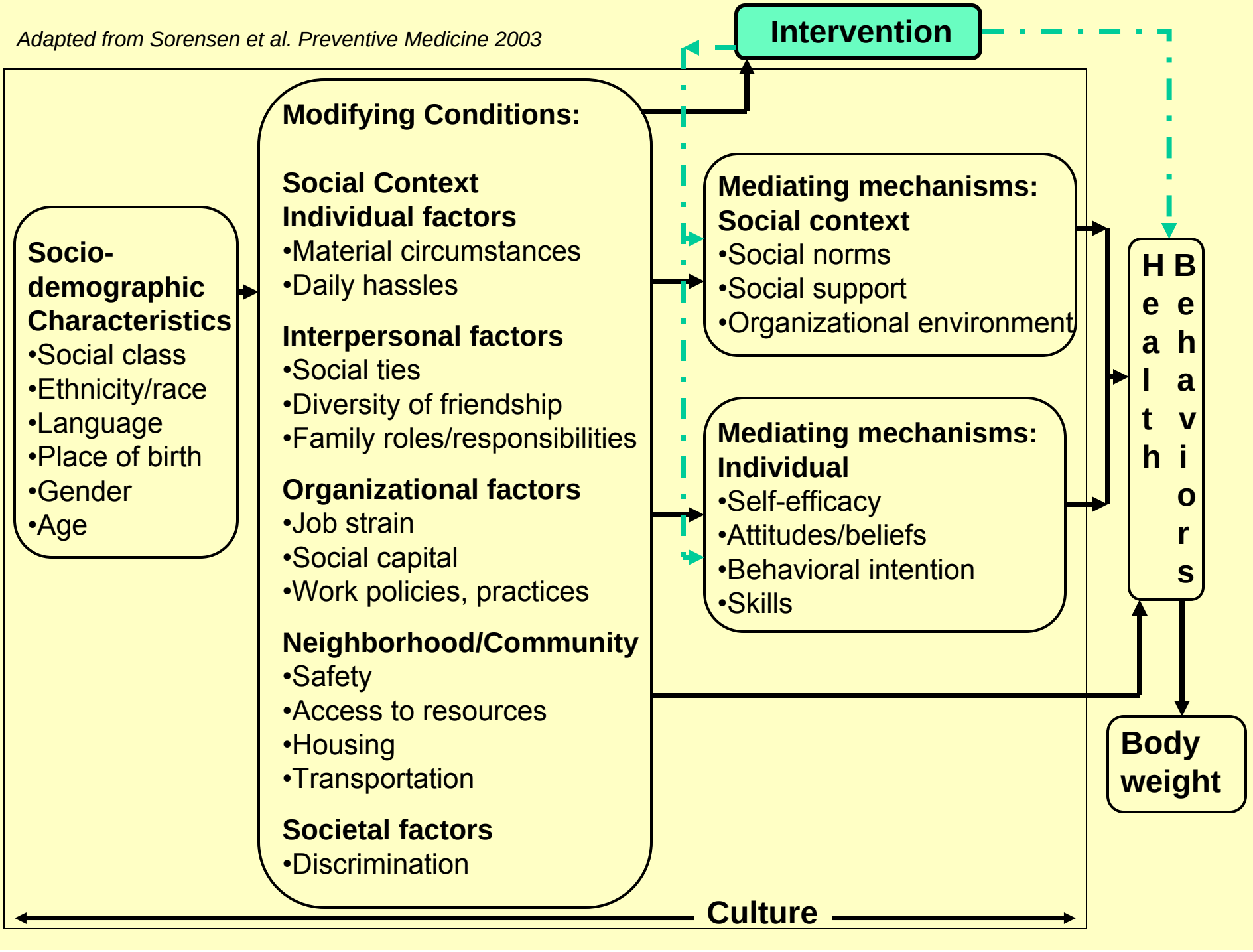

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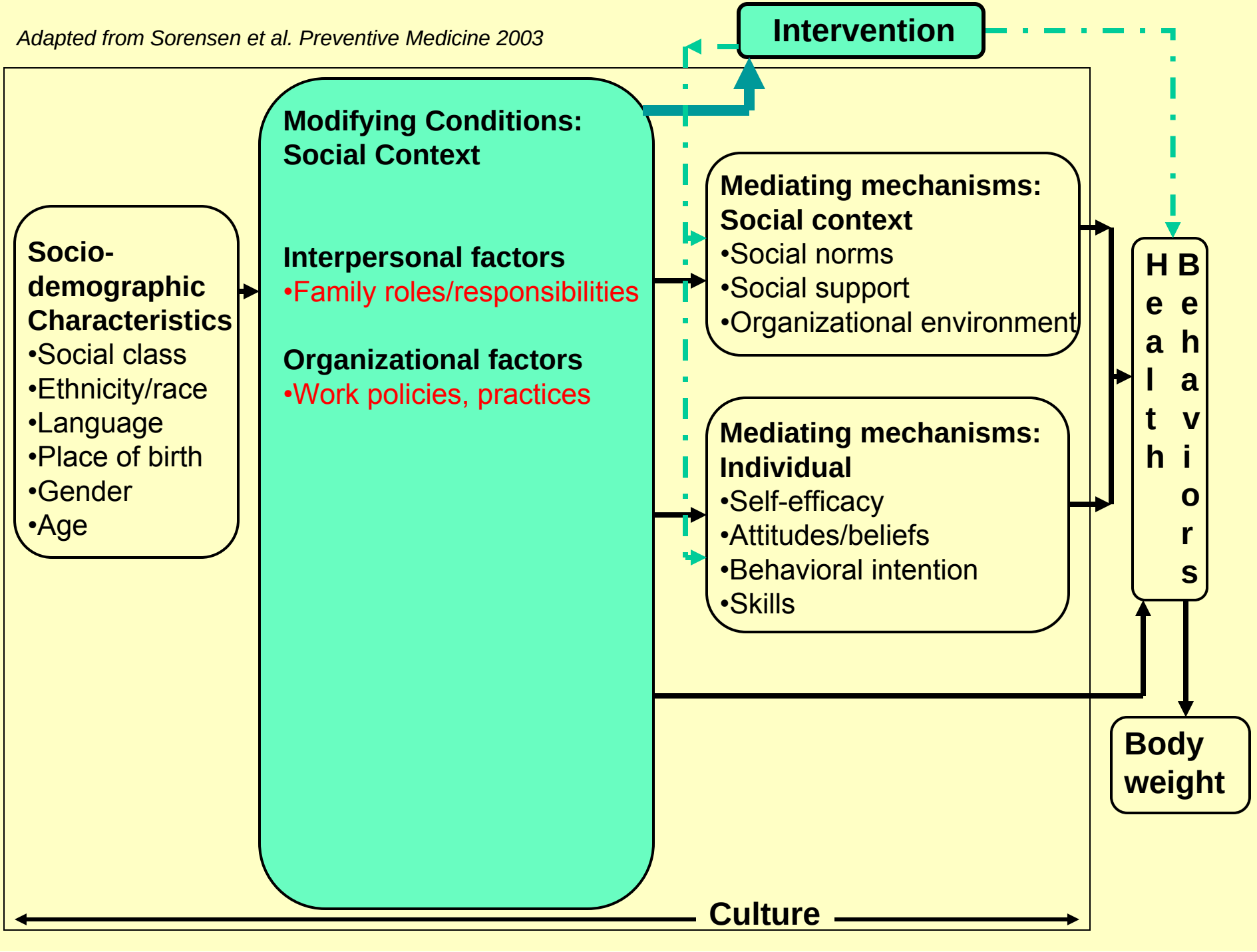


Data Sources

- **Work-Family integration and the diets of urban, low-wage working parents**
  - **A qualitative/quantitative methods development study** **(Devine et al., SS&M 2006)**
- **Images of a Healthy Worksite**
  - **Formative research for an environmental intervention in a large industrial worksite**

(Devine, et al., Obesity, 2007)

Interpersonal

Work ⟷ Family Spillover

- Positive and negative feelings, attitudes, and behaviors carried over from one role into another (Googins, 1991)
- Negative Work → Family Spillover associated with
  - Increased alcohol use (Grunberg, 1998)
  - Fewer meals eaten (Doumas, 2003)
  - A limit on food choices and a source of dissatisfaction and guilt (Devine et al., *SS&M,* 2003)
  - Low fruit and vegetable intake among construction laborers (Devine et al., *AJHP, 2007*)

Interpersonal

Food Choice Coping Strategies of Working Parents

- Parents use food choice coping strategies to:
  - Manage stress and fatigue
  - Reduce time and effort for meals
  - Reduce expectations for food and meals
  - Trade off food and eating against other priorities

Devine et al., SS&M 2006

Organizational

Characteristics of low-wage working parents in pilot study

- Long hours
  - Usually ≥ 45 hours/week
  - Overtime often
  - Second job
- Non-standard hours/weeks
  - Hours
  - Schedule
  - Varied schedule
- Low job satisfaction
- At job <1 year

Organizational

Parents working long hours & non-standard hours/weeks

- Used strategies such as
  - Food prepared/eaten away from home
  - Skipping meals
  - Speeding up meals

Organizational

Images of a Healthy Worksite: Formative Research

- Stress-related eating – multiple layoffs
  - "doing the work of 5 people"
  - "It's like a quick pat on the shoulder or something like that. You've kept up with your day; you've done a great job, here have a cookie"
- Organizational culture rewards working through breaks
  - "You're supposed to take one [a lunch break] but it's not worth it"
  - Personal food pantries
- Organizational culture a barrier to walking
  - Look like you are going to a meeting
- Obesity prevention at the worksite
  - Desire for programs, but I don't want my company to know what I weigh

(Devine et al., Obesity, 2007)

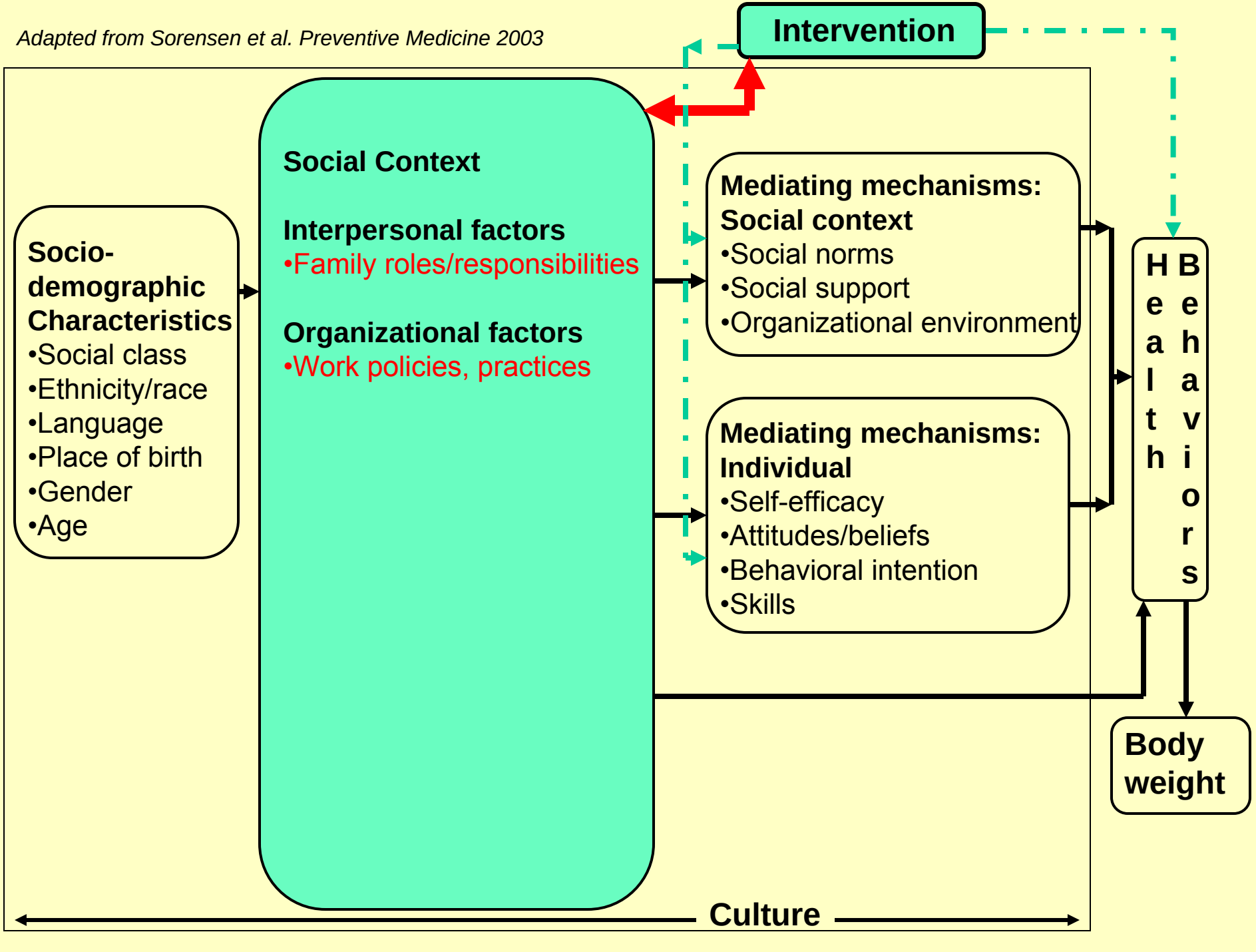
Organizational

Managers Perspectives: Barriers to Worksite Health Promotion

- No employee time
- No staff time
- Production conflicts
- Cost
- Space
- Lack of management interest
  - 41% think worksites should encourage employees to make healthy lifestyle choices

Linnan, AJHP 2007

Adapted from Sorensen et al. Preventive Medicine 2003



Interpersonal

Challenges and Opportunities

- **Intervention**
  - Encourage family participation
- **Evaluation**
  - Assess family characteristics
  - Who benefits? – how do outcomes vary by combined work and family conditions?
  - Measure dietary behavior and physical activity across the whole day, not just at work
  - Cost and time for assessment
  - Working parents resonate with issues of work-family balance

Organizational

Challenges and Opportunities

- **Intervention**
  - Consider work hours & schedules as design elements
    - International comparisons
  - Include stress reduction
  - Tailoring versus standardization
    - Effectiveness (Did it work in ideal conditions?)
    - Efficacy (Will it work in real life?)
  - Engage worksite leaders for efficacy and sustainability

Organizational

Challenges and Opportunities

Evaluation

- Measure job hours, schedule, satisfaction
- Tailoring creates challenges for evaluation
- Assess impacts that matter to employers: e.g. productivity, time
- Measure both the physical environment as well as engagement with that environment

Organizational

Challenges and Opportunities

- Evaluation
  - Privacy and obesity: whose responsibility?
    - social stigma vs. public health benefits
  - A constituency for weight gain prevention?
  - Measure food choice strategies (e.g. missed meals, eating while working, grabbing snack) as well as dietary intake
  - Reach vs. enrollment

Thanks to

NCI: RO1CA102684

NHLBI: R01HL079511

Jennifer Jabs
Margaret Jastran
Christine Blake
Carole Bisogni
Elaine Wethington
Diana Fernandez
Nancy Chin
Janet Nelson
Ann Dozier