Presentation Goals

- Brief Overview of Results
- Clinical Interventions in Context
  - Population health
  - Role in chronic care management
- Promising Directions for Future Research
- Continuing Research at Jefferson

No Significant Change from 2004

Obesity Trends Among U.S. Adults
(*BMI $\geq 30$, or about 30 lbs. overweight for 5’4” person)

1990: No Data          <10%           10%–14%
1998: 15%–19%           20%–24%          25%–29%          $\geq 30$
2007:
History & Context

• Supported by DMAA: The Care Continuum Alliance
  • Component of Obesity with Co-Morbidities Project

• Goals:
  • Expand understanding of co-morbid obesity
  • Develop and disseminate best practices

• Methods:
  • Peer-reviewed literature 2001-2007
  • Methods accepted as best practices employed
What We Reviewed

• Intervention categories
  – Behavioral
  – Pharmaceutical
  – Surgical

Note: Population Health Management interventions partially examined
Preview of Findings

• Effective: Weight-loss interventions combining two or more mechanisms of action often effective.

• Not-effective: Pharmacologic and behavior-based interventions combined with a second mechanism of action.
Behavioral Interventions

- Exercise
- Self-help
- Counseling
- Diet
- Combination of above
Results - Behavior Interventions

• Behavioral interventions may be appropriate for patients who need to lose modest amounts of weight. (Stevens, 2001)

• Program intensity and maintenance of intervention over time associated with effectiveness
Pharmacologic Interventions

- No evidence that one pharmacologic treatment is superior in effectiveness to another
- No drugs produce placebo-subtracted weight losses of 10% or more (NIH)
- Best results achieved when intensive lifestyle intervention is coupled with therapy.
Results: Pharmacologic Studies

Our review confirmed previous findings:

1. No studies of anti-obesity medications are associated with >10%, placebo subtracted, weight loss. 1

2. Medication interventions must be part of a comprehensive chronic care management strategy. 2

3. Combined with diet and behavioral lifestyle modification, pharmacologic treatment can yield 5-10% weight-loss. 1

Surgical Interventions: Two Types

- **Restrictive**
  - Restricts stomach capacity, reducing food intake
  - Adjustable Gastric Banding, Vertical Banded Gastroplasty

- **Combined Restrictive / Malabsorptive**
  - Restricts stomach and amount of nutrients, calories absorbed
  - Gastric Bypass, Bileopancreatic Diversion

R: The Cleveland Clinic (www.clevelandclinic.org)
Results: Surgical Interventions

- Supporting evidence is well-established.
- Approach is not appropriate for all patients.
- Effectiveness hindered by post-operative complications, costly readmissions.
- Costs: significant initial investment, attractive ROI (~6 years) with reduction in co-morbidities.
Summary of Review Results

• **Not Effective!**
  – Any type of intervention administered without integration of a second type

• **Effective!**
  – Medical OR Surgical interventions WITH:
    – strong behavior/lifestyle component, AND
    – personal commitment of patient

• **Selected stand-alone behavior interventions**
  – Only long-term interventions (2 yrs +) with frequent clinical interaction, maximizing “dose effect.”
Obesity and Population Health

- Consensus:
  - Obesity is an environmental health problem

- Domains for population-health approach include
  - Communities and governments
  - Schools
  - Health payors, including
    - Employers
    - Insurers

- Insurers and employers are emerging as driving forces in population health response.
Health Plans: Promising Practices

- Provider incentives
- Nutritional counseling
- Physical activity goals
- Patient-customized intervention
- Community education and planning
- Collaborations with employers
  - Value-based purchasing
Employers: Diverse Approaches

- Wellness Plans
  - Many include support for weight loss
  - Diverse supports:
    - individualized coaching
      » large employers
    - discount memberships in commercial weight-loss programs
      » feasible for mid-size employers

- Rewarding Healthy Lifestyles
  - recognition at department level
  - benefits & discounts
Case Study: Chronic Care Management

• Kaiser-Permanente Health System
  – Serves 8.1 million people in 9 states (2005)
  – 11,000 physician providers
  – Employee population 100,000 +
  – National leader, electronic medical records
Case Study: Kaiser Permanente

- Components in chronic care approach:
  - Evidence-based clinical practices and weight management interventions
  - Community health initiatives and grants
  - Educational theatre programs - health messages to kids
  - Farmers’ markets to create healthy food environments in and around Kaiser Permanente facilities
  - Sponsorship of a TV Turnoff campaign to reduce risks associated with excessive screen time

Promising Research Directions

- Studies of synthesized approaches: clinical intervention, chronic care management and population health

- New generation of cost-effectiveness studies to develop evidence-base for payer support

- Long-term studies that yield genuine evidence relevant to successful management of obesity over the life course
Continuing Research: Phase 2

• Continuing collaboration with DMAA: The Care Continuum Alliance
  – Independent academic research, employing best practices
  – Dissemination will include creation of information products to integrate with actionable tools for employers, insurers, policymakers
Continuing Research: Phase 2

• Focus on population health perspective

1. Case-series study, qualitative exploration of workplace initiatives

2. Population-health literature review

3. Prototype algorithm derived from evidence-based guidelines, for integration with DMAA benefit design for obesity management
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