A Team Approach to Managing Patients with Obesity

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Ashley Crowl, PharmD, BCACP

Dr. Ashley Crowl received her Doctor of Pharmacy degree from the University of Missouri-Kansas City School of Pharmacy. She completed a two-year post-graduate residency at the University of Minnesota focused in ambulatory care and leadership. She is currently a clinical assistant professor at the University of Kansas School of Pharmacy. She practices at the Ascension Via Christi Family Medicine Residency Clinic where she precepts pharmacy students and medical residents. She is board-certified in ambulatory care pharmacy.

Deb Doubek, MD, FAAFP

Dr. Doubek was born and raised in Kansas.

She is a graduate of the University of Kansas School of Medicine.

She has practiced Family Medicine in Manhattan, KS since 1992 where she is an owner and partner of a 10 physician private practice.

In 2007, she became board certified in Obesity Medicine.

She is been the director of the Ascension/Via Christi Weight Management Clinic in Manhattan since 2007.

Learning Objectives

- Describe a team approach to managing patients with obesity
- Incorporate motivational interviewing strategies into patient interview
- Identify how social determinants of health effect patients with obesity
- Review current pharmacotherapy treatments for obesity

Dr. Deb Doubek

- Diplomat: Ame
- Family Physici
- Fellow: Americ
- Private practice
- Director of Asce
- Middle aged ath
- LBWA: Learned

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t Hills Death Ride

Ascension/Via Christi Weight Management Program

Stonecreek

Why Talk About It?

Two out of three Americans are overweight or obese

BMI (kg/m²) and Obesity

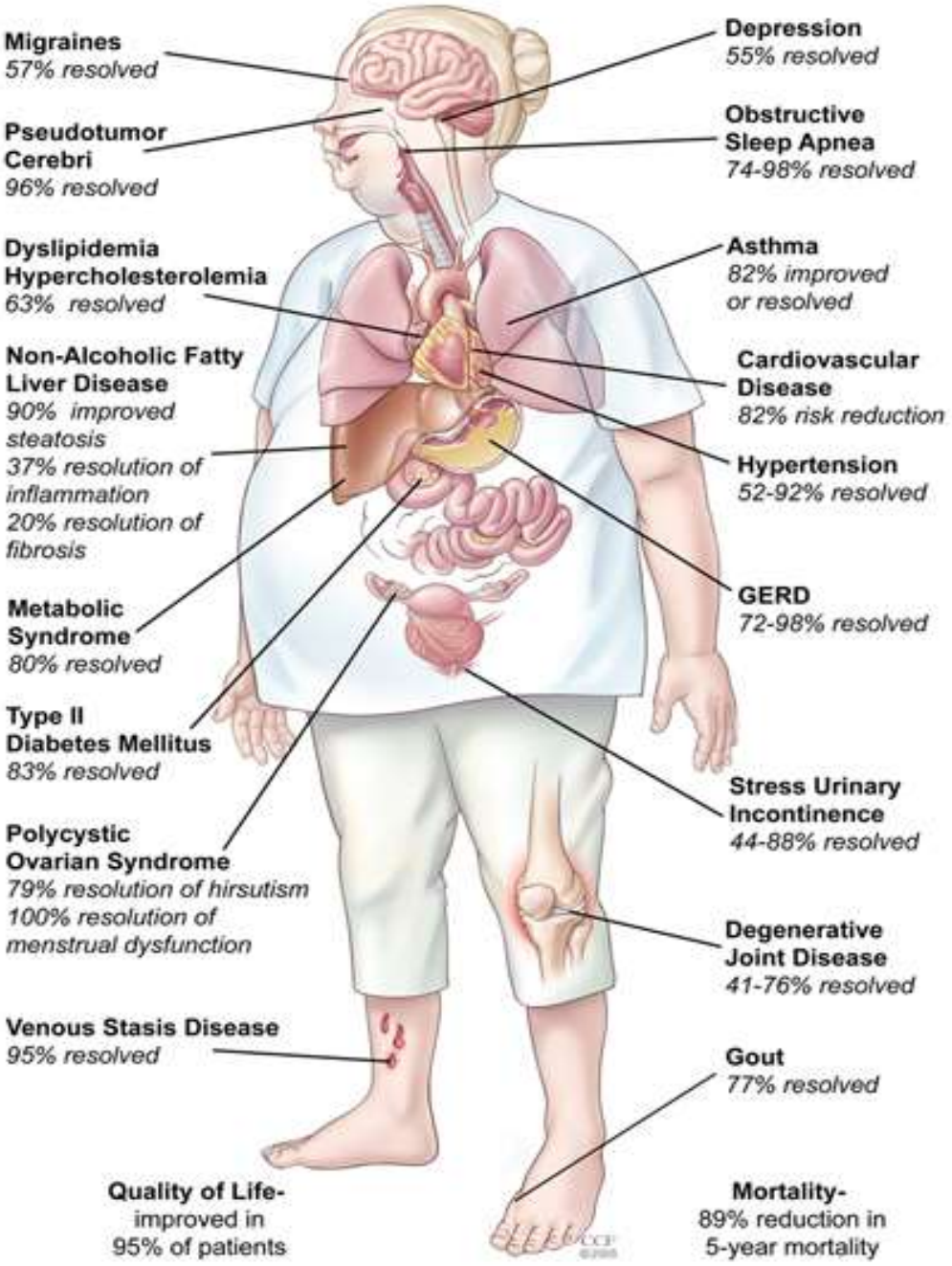
- <18.5 = Underweight
- 18.5-24.9 = Appropriate
- 25-29.9 = Overweight
- >30 = Obesity
- >35 + co-morbidities OR >40 = Morbid Obesity

Shifts in Conception of Obesity

What Obesity is…		What Obesity is NOT…
True disease with genetic determinants	→	A character flaw
Major public health threat	→	A "cosmetic" issue
Recurring weight gain indicates chronic disease	→	A failure of drug treatment

Obesity Increases Risk for…

- Hypertension
- Type II Diabetes
- Coronary Heart Disease
- High Cholesterol
- Stroke
- Gallbladder Disease
- Depression
- Sleep Apnea
- Gastroesophageal Reflux
- Complications of Pregnancy
- Congestive Heart Failure
- Gout
- Cancers:
  - Endometrial, gallbladder, renal
  - CRC, cervical, ovarian, pancreatic
  - Post-menopausal breast



Health Benefits of Modest Weight Loss

- Every 2lbs → 2 mm Hg BP drop
  - After 5-10% weight loss, BP meds can often be decreased
- 10% weight loss → 34% drop TGA levels
- 10% weight loss →
  - 16% decrease in total cholesterol
  - 12% decrease in LDL cholesterol

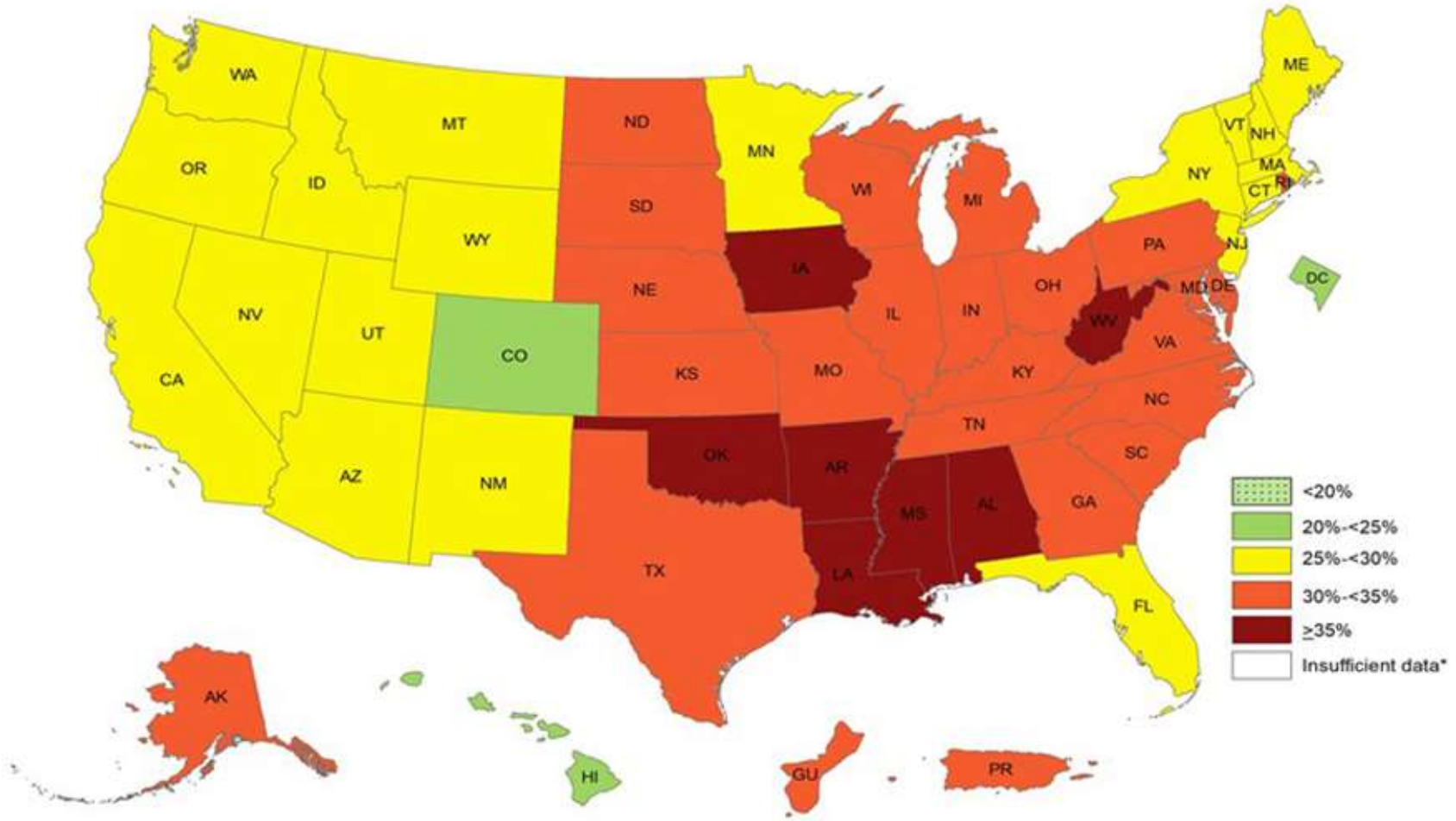
https://www.CDC.gov>healthyweight

*In **2014** AMA declared obesity a disease*

Defines 78 million adults & 12 million children

Obesity guidelines.AHA/ACC/TOS.2013.

Prevalence of Self-Reported Obesity Among U.S. Adults by State, BRFSS, 2017



Behavioral Risk Factor Surveillance System (CDC)

50% of the US population is expected to have a BMI ≥40 by 2030

Am.J.Prev.Med. 2012; 42:563-70

Cost of Obesity

- 42% more expensive than their normal weight counterparts
- Annual HC costs ~$192.2 billion, nearly 21% of annual medical spending in the US
- Childhood obesity alone is responsible for $14 billion in direct medical costs

American Society of Bariatric Surgery, 2013

Consequences of Obesity

1. Increased morbidity and mortality
2. Reduced productivity and functioning
3. Increased healthcare costs
4. Discrimination: social and economic

Obesity guidelines.AHA/ACC/TOS.2013.

Food Portions

Portions over time have grown larger, increasing the number of calories consumed

Pizza
1984; 500 Calories per slice
2004: 850 Calories per slice

Hamburger
1983: 333 calories
2003: 590- Calories

Plain Bagel
1993: 3-inch diameter=140 Calories
2003: 5-6 inch diameter= 350 Calories

Orange Soda
1950: 8oz bottle, 97 calories
1990: 20oz can, 242 calories

Fries
1983: 2.4 oz, 210 Calories
2003: 6.9 oz, 610 Calories

Popcorn
1984: 5 cups, 270 Calories
2004: Tub, 630 Calories

Big Mac:	560 kcal
Large Fries:	400 kcal
Large soda:	400 kcal
TOTAL:	**1360 kcal**

McDonalds®

Sleep Deprivation

- "Lovely" **Leptin**:
  - Secreted by fat cells to tell the brain when the body doesn't need food
- "Greedy" **Ghrelin**:
  - Gut hormone that tells the brain to eat more
- Sleep deprivation
  - *Lowers leptin* levels
  - *Raises ghrelin* levels
- ≥7 hours of sleep necessary*

*American Academy of Sleep Medicine

Weight Loss Expectations

- Healthy weight loss = 10% within 6 months
  - At initial consult, patients often wish to lose 30% of body weight in 6 months
- It should be noted that setting realistic goals does not lead to disappointment

Obesity guidelines.AHA/ACC/TOS.2013.

Motivational Interviewing

What it SHOULD Look Like

What it SHOULDN'T Look Like

Why talk about it?

- Today's young adults may be 1st generation in modern history to be less healthy than their parents
- Respiratory disease, cancer, diabetes, obesity, heart disease, and depression are often linked to health behavior and lifestyle
- Most maladies that cause patients to consult health professionals are largely preventable or remediable through health behavior change

Rollnick. Motivational Interviewing in Healthcare. 2007

Motivational Interviewing

- Activates the patient's own motivation for change and adherence to treatment
- Conversations about behavior change arise whenever you or your patients consider doing something different in the interest of their health
- For obesity, MI involves a change to result in weight loss which can mean eating smaller amounts, eating more healthy foods, or not drinking calories

Rollnick. Motivational Interviewing in Healthcare. 2007

Modern health care is increasingly about long-term condition management

The focus is on health behavior change and the things that people can do to improve their health

Rollnick. Motivational Interviewing in Healthcare. 2007

Historical Context

- 1983 – Motivational Interviewing first described as a clinical method used as a brief intervention for problem drinking
- 1990s – MI began to be tested for other health problems, particularly chronic diseases in which behavior change is key and patient motivation is a common challenge

Rollnick. Motivational Interviewing in Healthcare. 2007

Misconceptions

- When a patient seems unmotivated to change or take advice from practitioners, it is often assumed that the problem lies with the patient, and that there is not much one can do about it
- These assumptions are usually false – no person is completely unmotivated!

We all have something that matters to us

Rollnick. Motivational Interviewing in Healthcare. 2007

The Physician's Role

- The way in which you talk with patients about their health can substantially influence their personal motivation for behavior change to lose weight
- Motivational Interviewing – a clinical skill used to elicit a patient's own reasons for making behavior changes in the interest of their health

Rollnick. Motivational Interviewing in Healthcare. 2007

Overview of MI

- The overall "spirit' has been described as:
  - Collaborative
  - Evocative
  - Honoring of patient autonomy

Rollnick. Motivational Interviewing in Healthcare. 2007

Collaborative

- Motivational Interviewing requires an active, collaborative conversation and joint decision-making process
- ONLY the patient can enact changes that result in weight loss

Rollnick. Motivational Interviewing in Healthcare. 2007

Evocative

- The goal of MI is to:
  - Evoke from patients that which they already have
  - Activate their own motivation and resources for change
- Each patient has personal goals, values, aspirations, and dreams
- The art of MI is connecting health behavior change with what your patients care about, with their own values and concerns

Rollnick. Motivational Interviewing in Healthcare. 2007

Honoring Patient Autonomy

- MI requires a degree of detachment from outcomes
  - Not an absence of caring
  - Rather an acceptance that people can and do make choices about the course of their lives
- Humans naturally resist being coerced and told what to do
- Ironically, acknowledging the right and freedom not to change sometimes makes change possible

Rollnick. Motivational Interviewing in Healthcare. 2007

RULE: Four Guiding Principles

1. **R**esist
2. **U**nderstand
3. **L**isten
4. **E**mpower

Rollnick. Motivational Interviewing in Healthcare. 2007

Resist the Righting Reflex

- Most physicians have a powerful desire to heal, prevent harm and promote well-being
- Human nature tends to resist persuasion
- Rather than YOU tell the patient what to do, let the patient verbalize what they are willing to do
- It is the PATIENT who should be voicing the arguments for change

Rollnick. Motivational Interviewing in Healthcare. 2007

Understand Patient Motivations

- The patient's own reasons for change, not yours, are most likely to trigger behavior change
- Show genuine interest in the patient's concerns, values, and motivations
- Try asking the patient:
  - Why they would want to make a change
  - How they might do it (rather than telling them that they should)

Rollnick. Motivational Interviewing in Healthcare. 2007

Listen to Your Patient

- Motivational Interviewing involves at least as much listening as informing or educating
- More listening, less talking

Rollnick. Motivational Interviewing in Healthcare. 2007

Empower Your Patient

- Better outcomes happen when patients take an active interest in their health care
- Empowerment means helping patients explore how they CAN make a difference in their own health
- The patient's own ideas and resources are key
  - A provider knows that regular activity helps burn calories and lose weight
  - Your patient knows best how they could successfully build it into their daily lives

Rollnick. Motivational Interviewing in Healthcare. 2007

SMART Goals

- **S**pecific
- **M**easurable
- **A**chievable
- **R**ealistic
- **T**imebound

Rollnick. Motivational Interviewing in Healthcare. 2007

OARS: Communication Skills

- **O**pen-ended questions – to start the conversation
- **A**ffirm strengths and efforts
- **R**eflective listening – to keep the discussion going
- **S**ummarize

Rollnick. Motivational Interviewing in Healthcare. 2007

Open-Ended Questions

- Your BMI is above 30, which is in the obese range.

  What concerns do you have, if any, related to your weight?

- Your BMI is above 30. This suggests that you are at a higher risk for developing diabetes and heart problems.

  What do you know about this? How do you feel about this?

- You mentioned you want to lose some weight.

  What things would change in your life if you accomplished your weight loss goals? How would your life improve?

Rollnick. Motivational Interviewing in Healthcare. 2007

Affirm Strengths & Efforts

- Ask your patient what good things are they doing to control their weight
- Listen for the healthy things they are trying to do, and give them praise
  - This may be cutting back from 12 regular sodas a day to 6 a day
  - It may mean going from NO exercise to using the stairs at work rather than the elevator

Rollnick. Motivational Interviewing in Healthcare. 2007

Reflective Listening

- This is a statement, not a question!
- Say back similar words/ideas of what the patient is saying – more effective than questioning
- Reflective listening keeps the other person thinking and talking
- Examples:
  - It sounds like you feel overwhelmed when…
  - It sounds like this has been tough for you…
  - It sounds like you have mixed feelings about…
  - It sounds like you are not ready to…

Rollnick. Motivational Interviewing in Healthcare. 2007

Summarize

- Summarize the discussion highlighting key points
- This affirms that you, the clinician, has understood what the patient is saying

Rollnick. Motivational Interviewing in Healthcare. 2007

Change is Hard

- Patients usually know good reasons for the behavior changes that we are asking for
- However, people often ENJOY the status quo (e.g., a sedentary lifestyle or eating unhealthy food)
- Conflicting motivations are normal and common
  - "I need to get in better shape, but I hate exercising"
  - "I need to eat healthier, but I am addicted to sugar"
  - "I should eat smaller portions, but I love going back for seconds"

Rollnick. Motivational Interviewing in Healthcare. 2007

Assessing for Change

- Listen for "desire statements" that tell you about the person's preferences – either for change or the status quo
  - "I **wish** I could lose some weight"
  - "I **want** to get rid of this pain"
  - "I **like** the idea of getter more exercise"
- Listen for ability statements
  - "I might be **able** to cut down a bit on portion sizes"
  - "I **could** probably take a walk over my lunch hour"
  - "I **can** try to cut my regular soda consumption in half"

Rollnick. Motivational Interviewing in Healthcare. 2007

Assessing for Change

- Change talk may express specific reasons for a certain change, such as:
  - "I am sure I'd feel better if I lost 10 pounds"
  - "I want to be around to see my grandchildren grow up"
  - "Losing weight would allow my to become more mobile and allow me to do my job better"

Rollnick. Motivational Interviewing in Healthcare. 2007

Listen for Change Talk

- When you hear change talk, you are doing it right!
- If you find yourself arguing for change and the patient defending the status quo, you know you are off course

Rollnick. Motivational Interviewing in Healthcare. 2007

- The goal is to attune your ears to change talk – recognize and affirm it when you hear it!
  - When you explore change talk, you are touching on the patient's values and aspirations
  - When you hear change talk language, you are learning something about what your patients hope for and what matters to them
  - These are important themes worth exploring a bit, rather than just letting them pass
  - The reason is that a deeply held value can be a powerful motivation for change
- When a behavior such as weight gain and obesity truly collides with a more deeply held value, change can result

Rollnick. Motivational Interviewing in Healthcare. 2007

Take Home Points

- Obesity is a chronic illness no different than hypertension or diabetes
- Motivational Interviewing leads to changes in health behavior by activating the patient's own motivation
- Successful MI requires core communication skills:
  - **O**pen-ended questions
  - **A**ffirm strengths and efforts
  - **R**eflective listening
  - **S**ummarize

Ashley Crowl

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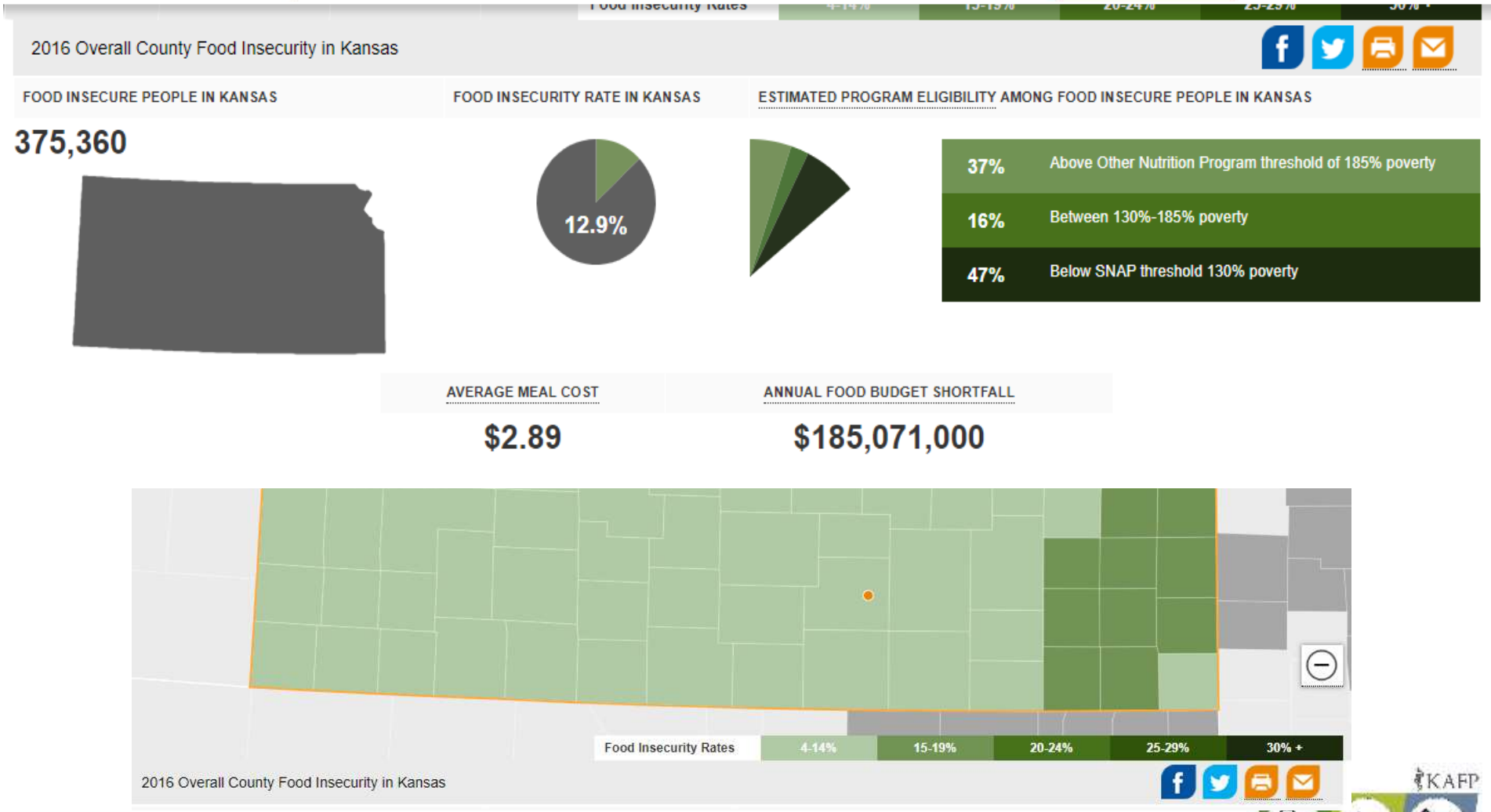
Social Determinants of Health

Social Determinants of Health (SDOH)

- Food insecurity= unreliable, inconsistent access to nutritious, affordable food
  - Increases risk of Diabetes and Hypertension
  - Higher risk of hospitalizations
- Can be related to other issues:
  - Transportation concerns
  - Low socioeconomic levels
  - Limited access to healthy food

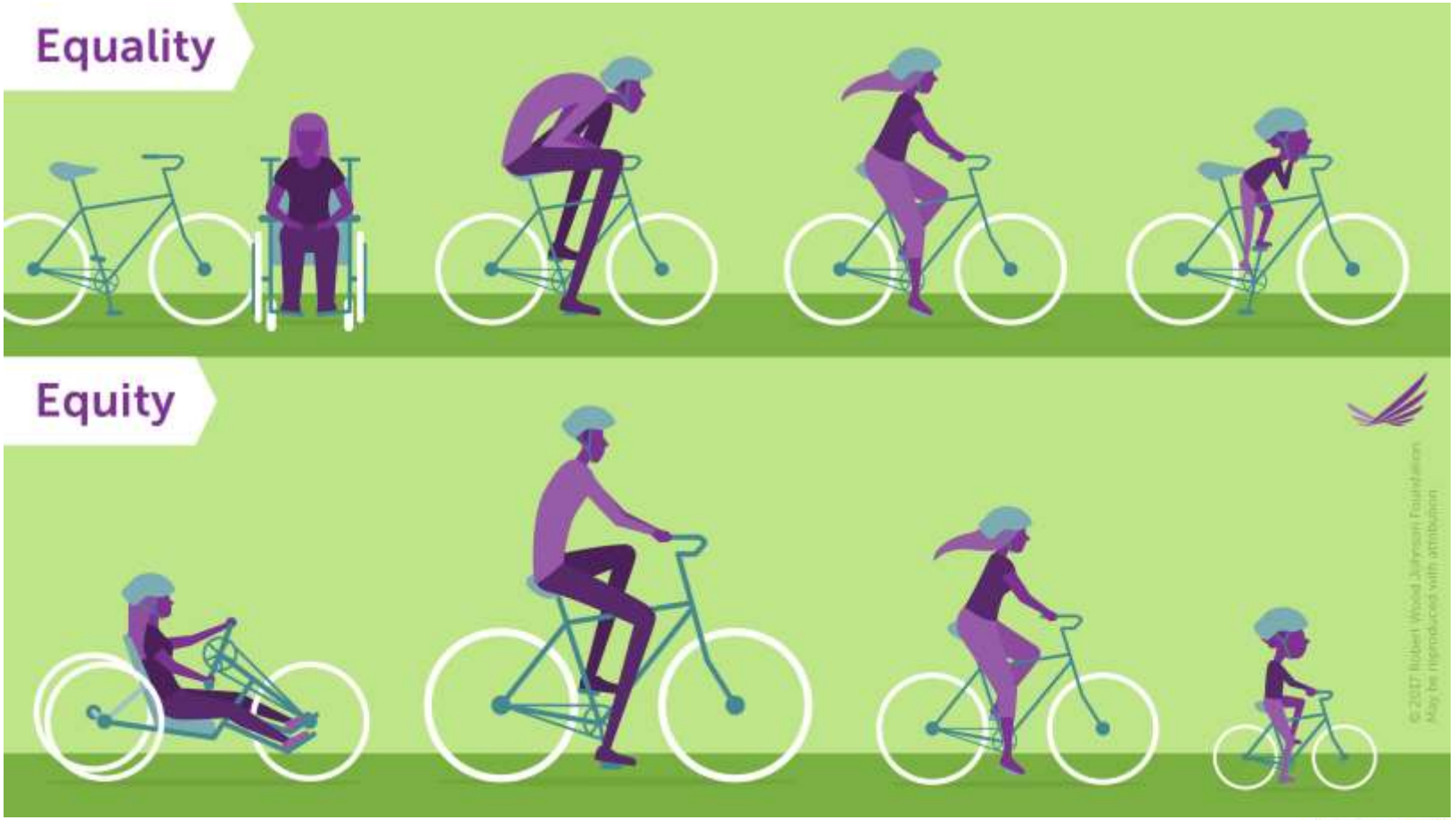
Seligman H. Food insecurity, health, and health care.2016
https://cvp.ucsf.edu/resources/Seligman_issues_brief_1.14.16.pdf

SDOH- Food insecurity



Feeding America
http://map.feedingamerica.org/county/2016/overall/kansas

SDOH



Resources

https://www.he.k-state.edu/efnep/
https://snaped.fns.usda.gov/nutrition-education/recipes

Managing obesity

Treatment steps

- Promote healthy eating
- Regular physical activity
- Treat with medications

Obesity guidelines.AHA/ACC/TOS.2013.

Which Weight Loss Programs Work the Best?

- No certain dietary food plan has been shown to be better than others for weight loss

The best diet is one that leads to weight loss and can support long-term weight maintenance

Obesity guidelines.AHA/ACC/TOS.2013.

Weight Loss Programs that Work Best

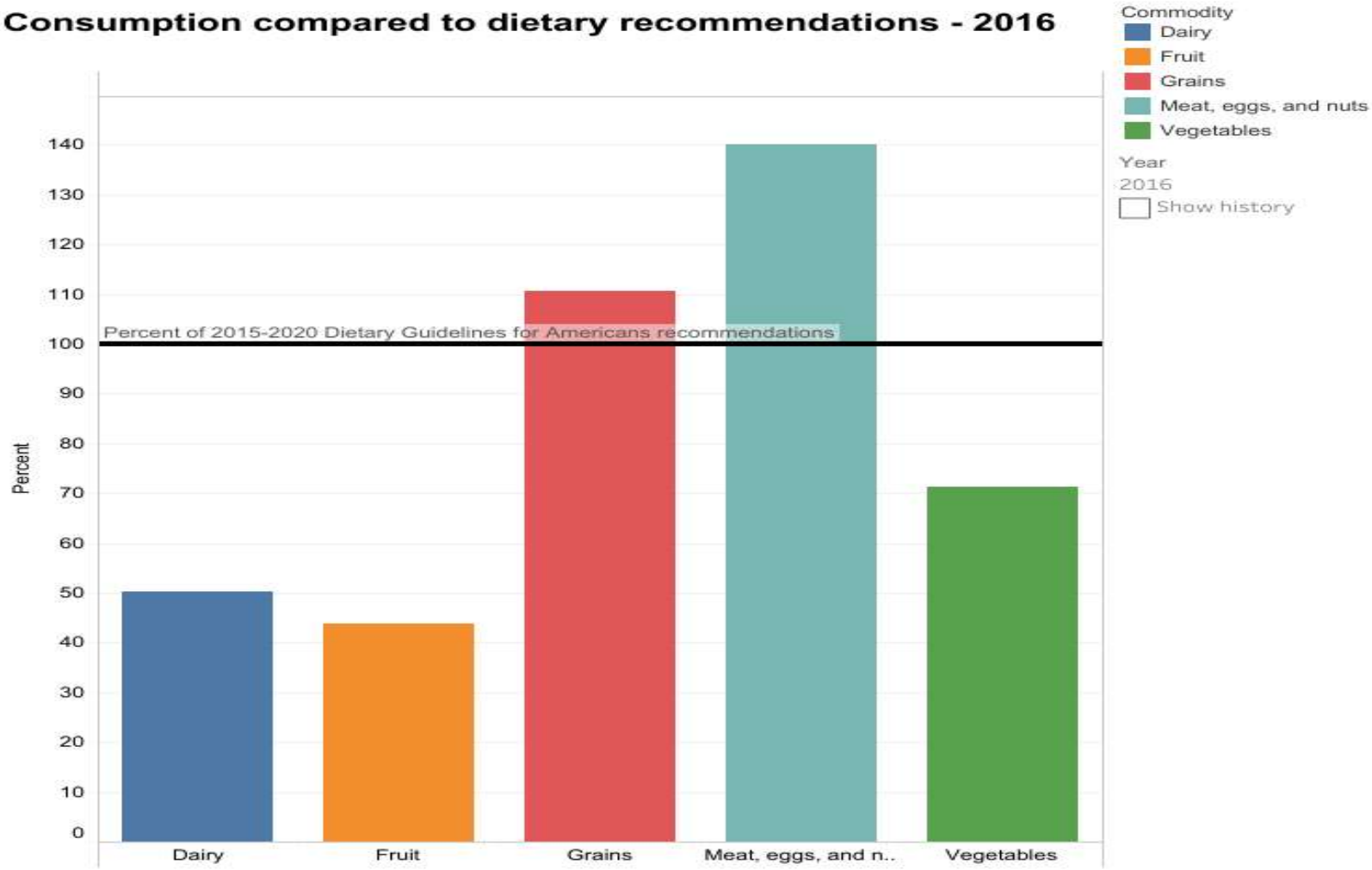
- Can be easily followed to improve compliance
- Lower total calories
- Lower in refined carbohydrates
- Lower in monounsaturated fat

Best Diets per U.S. News

- Mediterranean Diet
  - Reduces risk of CV events by 30%
- Dietary Approaches to Stop Hypertension (DASH) Diet
  - Reduced systolic/diastolic BP by 5.5 /3.0 mmHg
- Weight Watchers
  - 2.6% greater weight loss at 12 months compared to education alone
  - Decrease in A1C by 0.32%

https://health.usnews.com/best-diet/best-diets-overall
Estruch R. Predimed Study. Lancet 2016:4
Lawrence J. NEJM 1997;336
O'Neil P. Obesity 2016;24

Consumption compared to dietary recommendations - 2016



Note: Rice availability data were discontinued in 2010 and thus are not included after 2010. Based on a 2,000-calorie-per-day diet. Loss-adjusted food availability data serve as a proxy for consumption.

Source: USDA, Economic Research Service, loss-adjusted food availability data series from the Food Availability (Per Capita) Data System, 2018 and *2015-2020 Dietary Guidelines for Americans*.

Exercise

- The American College of Sports Medicine recommends moderate-intensity physical activity of 150 to 250 minutes/week
- An energy equivalent of 1200 to 2000 kcal/week
- Heart Rate should be at that of a fast walk

Qsymia ® (Phentermine/Topiramate)

Dose

- **Initial**: *P*:3.75 mg/*T*:23 mg daily x14 days then *P*:7.5mg/*T*:46 mg daily.
- May ↑ *P*:11.25mg/*T*:69 mg daily x14 days, *P*:15mg/*T*:92 mg daily

MOA

- Phentermine: sympathomimetic, increases release of NE to reduce appetite
- Topiramate: Works on GABA receptors and reduces appetite

Cost

- $223/month
- Coupon card: 2 weeks free (pays up to $65 out of pocket cost)

PL Detail-document, Drugs for weight loss. Nov 2014
Product Information: QSYMIA®, 2014.
Conquer Trial. Lancet 2011.

Qsymia® (Phentermine/Topiramate)

Efficacy

- Average wt loss= 20 lbs
  - 66.7% achieved 5% weight-loss
  - NNT =2

Safety

- 1 in 12 patients stop phentermine/topiramate-ER due to ADE > constipation, insomnia, anxiety, dry mouth, paresthesia
- ~50% drop-out rates in trials

CI

- Pregnancy, glaucoma, hyperthyroidism, MAOIs, suicidal ideation, moderate-high CVD
- Caution: Renal or hepatic impairment

PL Detail-document, Drugs for weight loss. Nov 2014
Product Information: QSYMIA®, 2014.
Conquer Trial. Lancet 2011.

Belviq® (Lorcaserin)

Dose

- 10 mg BID
- 20 mg Qday (extended release)

MOA

- 5-HT_{2C} receptor agonist
- promote satiety by decreasing food intake through melanocortin system

Cost

- $318/month
- Coupon card: $40 (pays up to $195 out of pocket cost)

PL Detail-document, Drugs for weight loss. November 2014
Smith.Lorcaserin. NEJM 2010.

Belviq® (Lorcaserin)

Efficacy

- Average wt loss= 7.24-12.7 lbs
  - 47.2% achieved 5% weight-loss
  - NNT = 4

Safety

- 1 in 53 patients stop lorcaserin due to ADE
  - Nausea, dizziness, fatigue, and headache
  - Drop out rates ~50%

CI

- Pregnancy, valvular heart disease, ESRD
- Caution: CHF, neuroleptic malignant syndrome, pulmonary hypertension, hyperprolactinemia

PL Detail-document, Drugs for weight loss. November 2014
Smith.Lorcaserin. NEJM 2010.

Saxenda® (Liraglutide)

Dose

- Start 0.6 mg SQ daily and increase by 0.6 mg weekly to dose of 3 mg daily

MOA

- Glucagon-like peptide-1 receptor agonist, reduce appetite and energy intake

Cost

- $1230/month
- Coupon card: $25 (pays up to $200 out of pocket cost)

PL Detail-document, Drugs for weight loss. Nov 2014.
Product Information: SAXENDA(R) Plainsboro, NJ, 2014.

Saxenda® (Liraglutide)

Efficacy

- Average wt loss= 8.1-11.4 lbs
  - 76% achieved 5% weight loss
  - NNT = 2

Safety

- 1 in 19 patients stop liraglutide due to ADE
  - Nausea! (48%)
- Drop out rate ~40% [injection did not effect]

CI

- Medullary thyroid cancer, pregnancy, pancreatitis
- Caution: renal and hepatic impairment

PL Detail-document, Drugs for weight loss. Nov 2014
Product Information: SAXENDA(R) Plainsboro, NJ, 2014.

Contrave® (Naltrexone/bupropion)

Dose

- 1 tablet= n:8 mg/b:90 mg
  - Week 1: 1 tab daily in AM
  - Week 2: 1 tab BID
  - Week 3: 2 tabs AM & 1 tab PM
  - Week 4: 2 tabs BID

MOA

- Bupropion: stimulates melanocortin neurons
- Naltrexone: blocks opioid-mediated auto-inhibition of melanocortin system

Cost

- $334/month
- Coupon card: $114 (pays up to $187 out of pocket costs)

PL Detail-document, Drugs for weight loss. Nov 2014
Product Information: CONTRAVE(R) La Jolla, CA, 2014.

Contrave® (Naltrexone/bupropion)

Efficacy

- Average wt loss= 9 lbs
  - 48% achieved 5% weight-loss
  - NNT= 3

Safety

- 1 in 9 patients stop bupropion/naltrexone due to ADE > nausea, constipation, headache
- ~50% drop-out rates in trials

CI

- uncontrolled HTN, seizures, bulimia, anorexia, or pregnancy
- Caution: Renal or hepatic impairment

PL Detail-document, Drugs for weight loss. Nov 2014
Product Information: CONTRAVE(R) La Jolla, CA, 2014.

Xenical/Alli® (Orlistat)

Dose

- 120 mg TID before meals (RX)
- 60 mg TID before meals (OTC)

MOA

- Pancreatic lipase inhibitor: Selectively inhibits lipases from stomach and intestines to reduce digestion of fat

Cost

- $748 (RX)
- $82 (OTC)

Torgerson J. Orlistat. 2004
PL Detail-document, Drugs for weight loss. November 2014

Xenical/Alli® (Orlistat)

Efficacy

- Average weight loss= 7.6 lbs
  - 44% achieved 5% weight-loss

Safety

- Gas, oily spotting, fecal incontinence, abdominal/rectal pain, nausea.
- 1 in 28 patients stop orlistat due to ADE

CI

- chronic malabsorption syndrome, cholestasis, pregnancy
- Liver injury*

Phentermine

Dose
- 15-37.5 mg/day
- Only approved for 12 weeks

MOA
- sympathomimetic, increases release of NE to reduce appetite

Cost
- $56/month

Safety
- Insomnia, tachycardia, GI distress
- Do not use if uncontrolled HTN, hyperthyroidism, glaucoma, or hx of drug abuse

Why treat?

- Reduces CVD risk factors, prevents DM, and improves other health consequences
  - 10% weight-loss in patients with Type 2 DM= **21%** lower risk of CV morbidity/mortality
  - Weight-loss of 10 Kg+ = reduced sleep apnea
- All are **covered** on KanCare!!!

Look AHEAD trial. Arch Intern Med. 2010;170(17)
Sleep AHEAD Study. Arch Intern Med. 2009;169(17)

Questions?