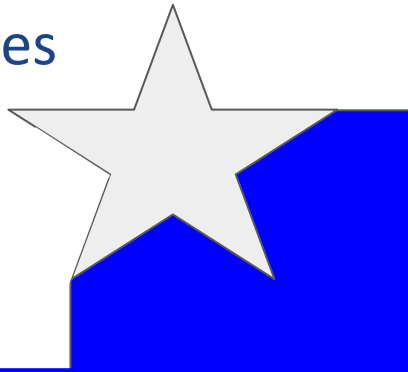
Project CHEER

Community Health Education and Exercise Resources

Improving Cardiovascular &
Overall Health through Nutrition & Physical Fitness
Community Programming for
Individuals with Disabilities

Division of Developmental and Intellectual Disabilities
University of Kentucky Human Development Institute
Centers for Disease Control and Prevention

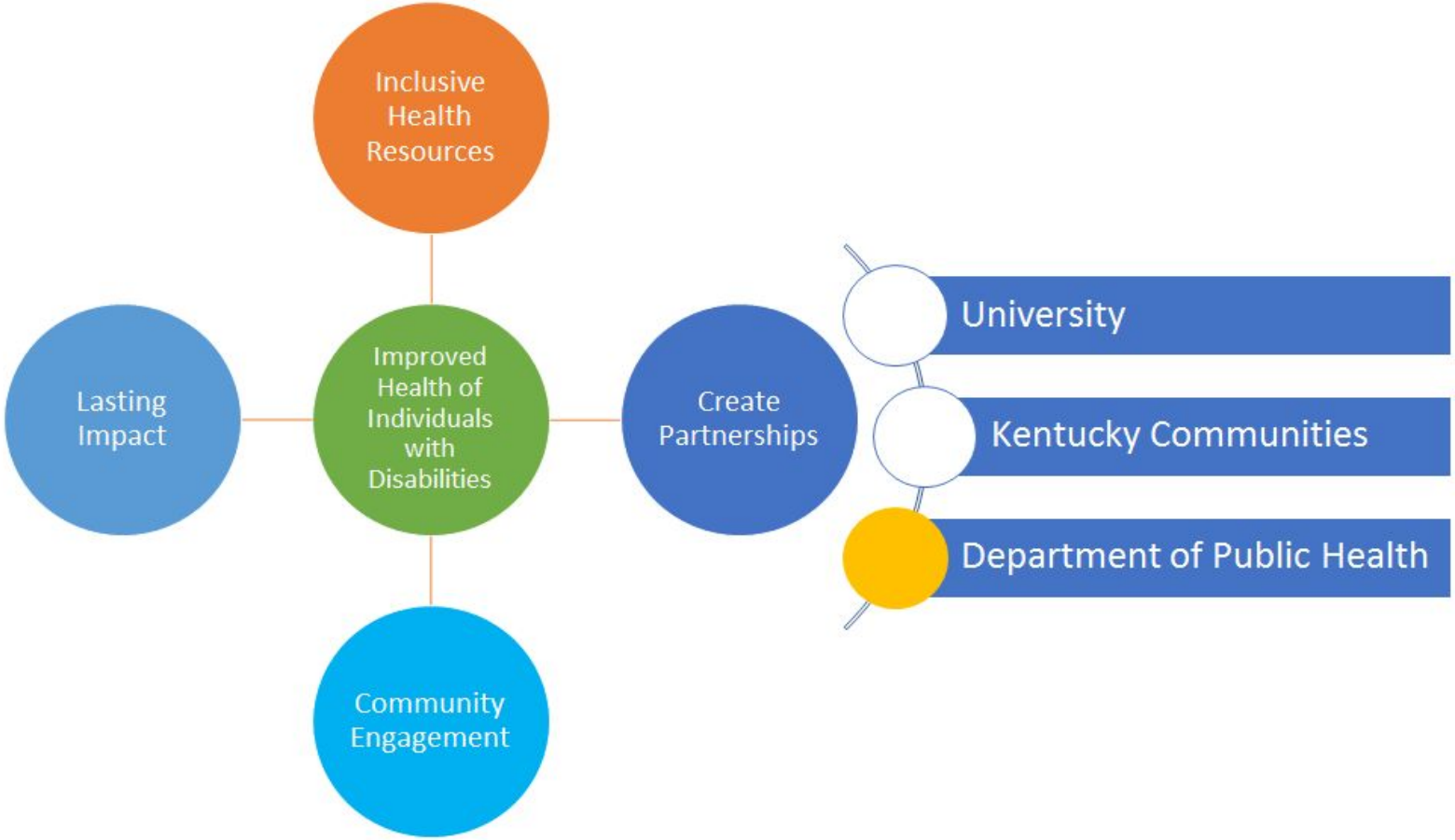


The purpose of project **CHEER** is to address and ameliorate startling health disparities among individuals with cognitive and mobility limitations diagnosed with hypertension or at-risk for the development hypertension.

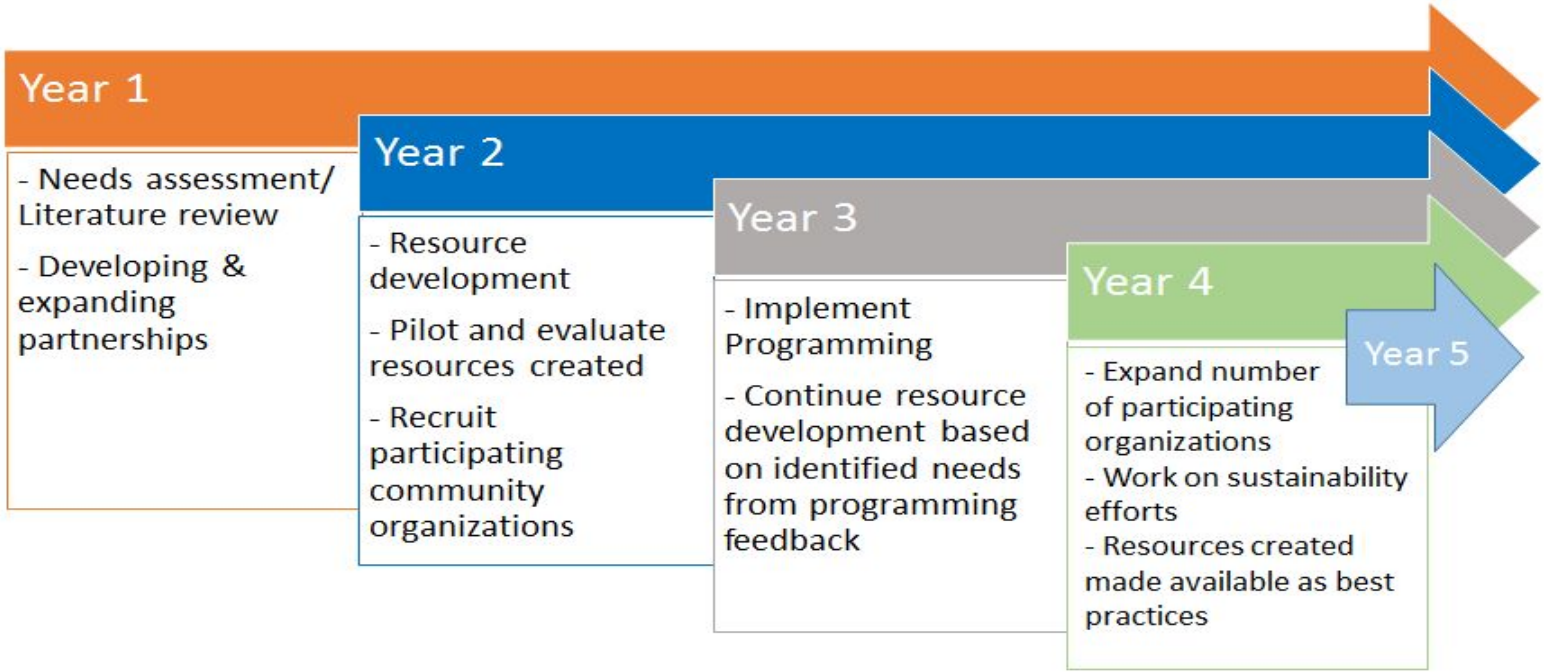
What is **CHEER** going to do?

Provide interactive educational opportunities to enhance self-advocacy and empowerment to make healthy lifestyle choices through improved nutritional choices, physical fitness activities, and community relationship building.

What is CHEER going to do?



Project CHEER Timeline



CHEER Year 1 Objectives

- ✓ Increase the number of advisor committee members from 0 to 12.
- ✓ Increase the number of developed promotional products that raise awareness of how Project CHEER will address those needs from 0 to 3.
    - This presentation is an example of a product

CHEER Year 1 Objectives

- ✓ Increase the number of partnerships with key agencies/institutions from 0 to 5.
- ✓ Increase the number of supplemental resources for HealthMatters KY from 0 to 5.
    - We added 9 inclusive health promotion resources to the wellness website in year 1 that are currently in the process of being piloted

CHEER Year 2 Objectives

- ✓ Increase the number of advisory meetings from 1 to 3.
- ✓ Increase the number of collaborative activities from 0 to 3.
- ✓ Increase the the number of recruited participant sites from 0 to 2.
- ✓ Increase the number of supplemental resources for HealthMatters KY to 11.
- ✓ Increase the number of trained Department of Developmental and Intellectual Disabilities Nurse Facilitators from 0 to 5.

CHEER Advisory Group

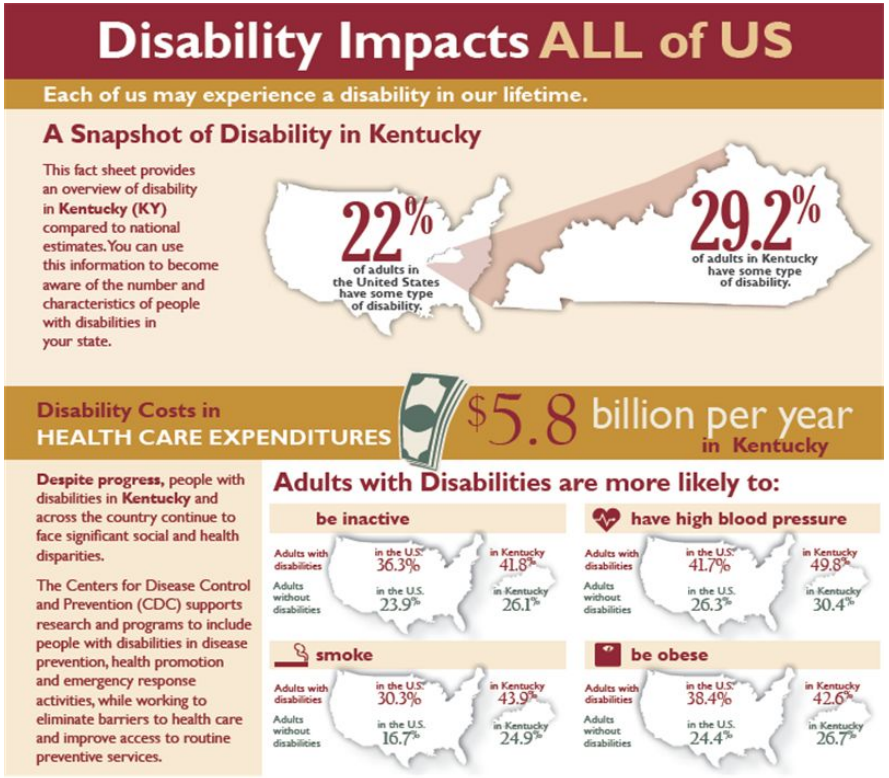
Goals:

- Provide support to the Project CHEER leadership team
- Help empower Kentuckians with disabilities to make healthy lifestyle choices that reduce negative health outcomes

Roles and Responsibilities:

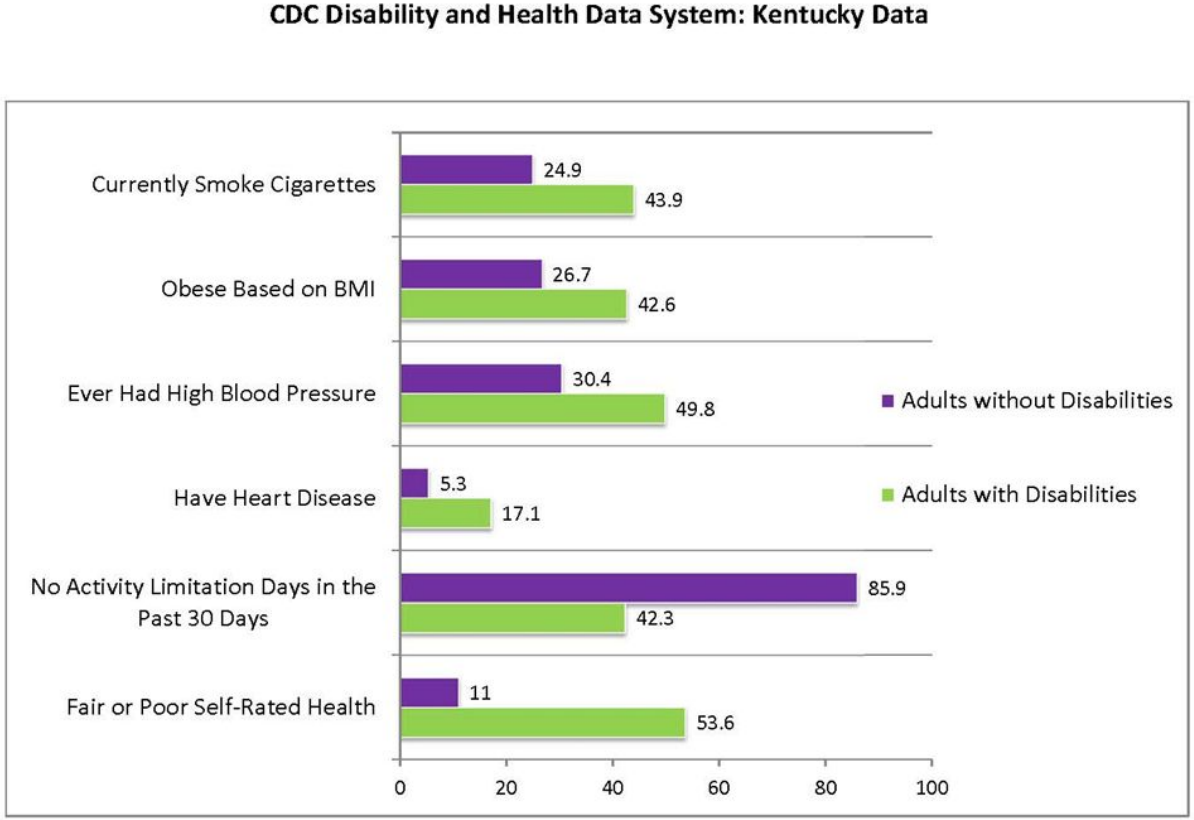
- Attend quarterly Advisory Group meetings
- Provide input on project resources and tools
- Provide guidance on how to offer health programming throughout the state
- Serve as a positive role model and champion for good health in Kentucky

Why does CHEER matter?



www.cdc.gov/disabilities (2015)

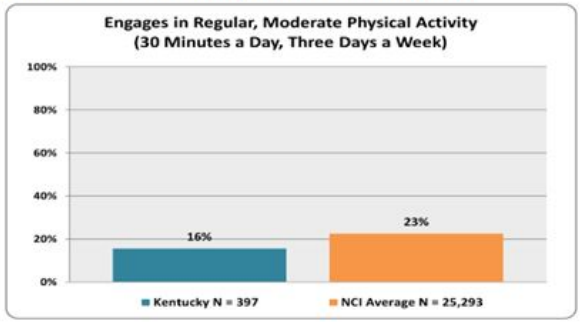
Why does CHEER matter?



Why does CHEER matter?

2014-2015 KENTUCKY'S NATIONAL CORE INDICATORS DATA

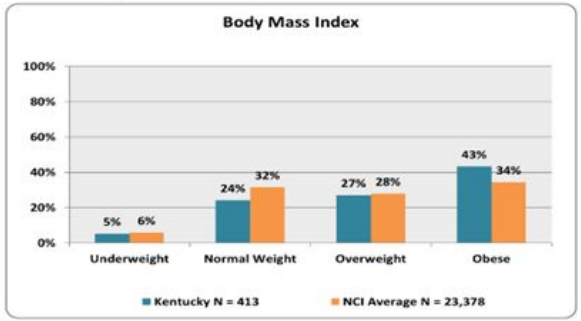
GRAPH 95. ENGAGES IN REGULAR, MODERATE PHYSICAL ACTIVITY



This graph illustrates that 16% of respondents from Kentucky and 23% across NCI states were reported to engage in moderate physical activity at least 30 minutes a day three days a week.

States ranged from 7% to 37%.

GRAPH 96. BMI (BODY MASS INDEX)



This graph illustrates that respondents from Kentucky and across NCI states fall into the following BMI categories, respectively: 5% and 6% underweight, 24% and 32% within a normal weight, 27% and 28% overweight, and 43% and 34% obese.

States ranged from 3% to 22% underweight; 23% to 39% normal weight; 23% to 32% overweight; and 22% to 45% obese.

Why Do We Need CHEER ?

- Individuals with developmental and intellectual disabilities (ID) are at a heightened risk for high blood pressure[1]
    - Especially true in adults
- Health issues could be due to higher rates of; smoking, obesity and lack of daily physical activity[4, 5, 6]
- Specifically, the population of Kentucky, including those with disabilities, are at a greater risk for developing heart diseases

Why Do We Need CHEER ?

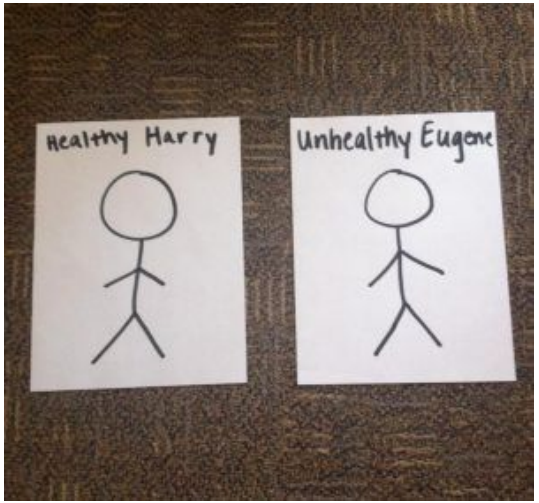
- Kentucky ranks 43rd, 46th and 45th in mortality rate due to heart disease, percent of adult population with high blood pressure and physical activity, respectfully[2]
- Challenges facing Kentucky include:
  - Lower median income
  - Highly rural population (24% vs. 6.3%)
  - Less health resources (hospitals, primary care offices, etc.)
- Poverty has consistently been related to increased risk for poor health outcomes[3]

Purpose of CHEER

- Identify, and improve upon, health and wellness based disparities facing individuals with ID
    - Specifically those with, or at risk for, HTN
- Discover an effective way to promote and implement already proven programs for those with disabilities
- Providing individuals, and their caregivers, with interactive educational materials to improve upon healthy lifestyle choices
- GOAL: lowering the elevated rate of need for blood pressure medications

Healthy Harry & Unhealthy Eugene

http://www.wellness4ky.org/healthy-harry-vs-unhealthy-eugene/



What CHEER hopes to accomplish

- Through appropriate training in nutrition and physical fitness, along with community relationship building and coaching, we hypothesize;
    1. Lower the need and use of blood pressure medications
    2. Increase in healthy blood pressure levels
    3. Healthy lifestyle (weight, exercise)
    4. Create lasting partnerships with the community

Methods

1. Identify the disparities facing those with ID, in relation to health and wellness, through national and state databases.
2. Locate research and educational materials reporting on the disparities identified.
3. Report on research that demonstrate findings which have identified methods to combat the health and wellness disparities facing those with ID.
4. Search for areas that have not been explored, and can be improved, regarding health and wellness for individuals with disabilities.

Methods

Literature and Research Resources

- Scholarly journal articles
- Academic textbooks
- Kentucky Department of Medicaid Services
- Kentucky Department of Public Health
- University of Kentucky Gill Heart Institute
- Community Health Inclusion Index
- National Core Indicator report
- Christopher and Dana Reeve Foundation
- National Center on Health, Physical Activity and Disability
- Healthy Athletes Initiative

Results

Kentucky Specific Data - Areas for Improvement[7]

Physical Activity

- Overall health
- Proportion obese, overweight, normal weight, underweight

Nutrition

- Overall health
- Tobacco usage
- Proportion obese, overweight, normal weight, underweight

Results

Barriers - Physical Activity

- Transportation[8]
- Limited staffing of qualified individuals
- Lack of inclusive accommodations[9]
- Limited exercise options[10]
- Caregiver involvement[11]
- Lifestyle threat awareness[12]
- Lack of energy
- Age
- Outcome expectations[13]

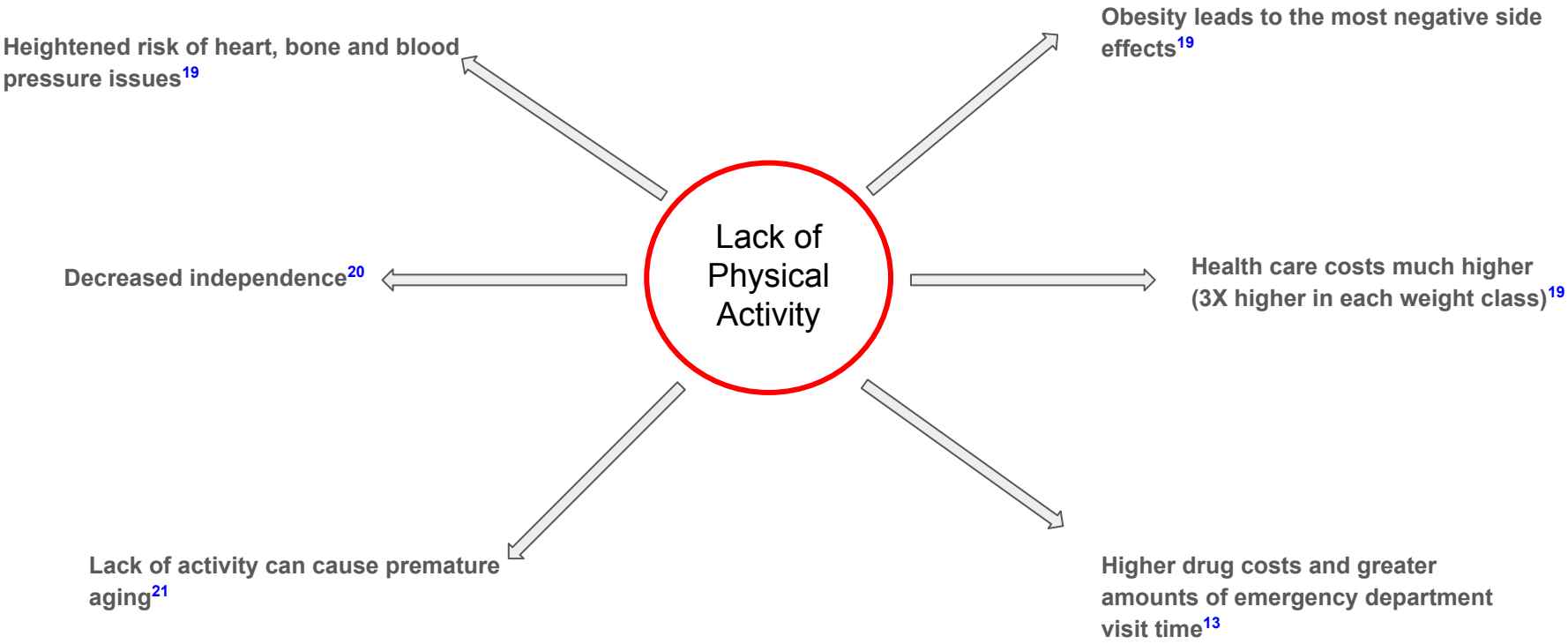
Results

Barriers - Nutrition

- Cooking knowledge[14]
- Information on healthy eating habits
- Transportation to grocery story
- Low income[15]
- Eating challenges[16]
  - Chewing
  - Food selectiveness
  - Medication side effects
- Caregiver responsibility[17]
- Meal portion size[18]
  - How much we eat
  - How often we eat
  - What we eat
  - How fast we eat

Results

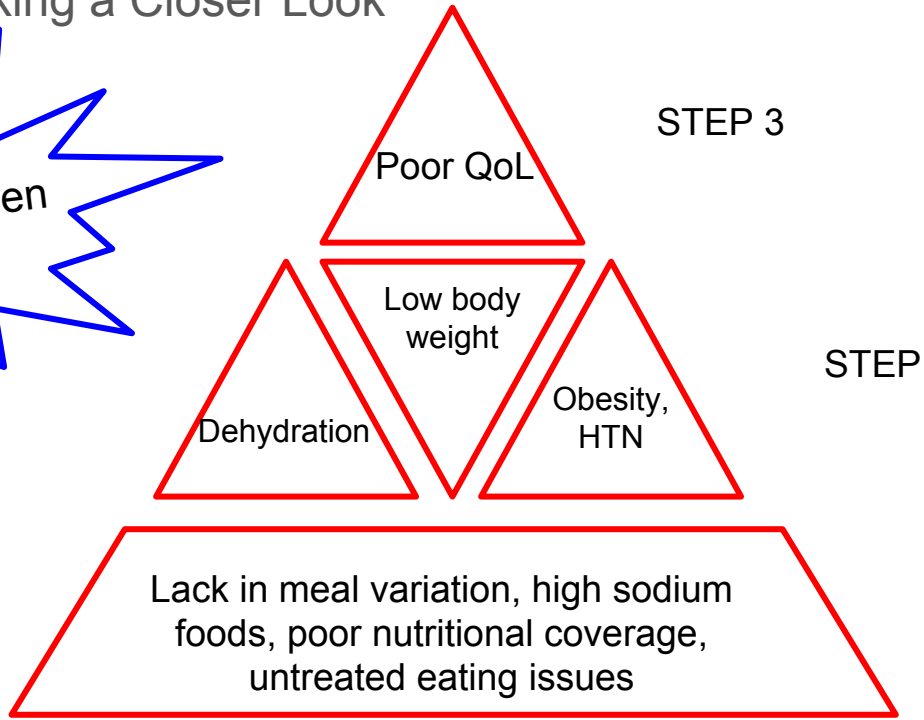
Living with ID - Taking a Closer Look



Results

Living with ID - Taking a Closer Look

What happens when poor nutrition progresses?



STEP 3

STEP 2[23, 24]

STEP 1[16, 22, 23]

Plans Going Forward

- Form an expert committee of faculty across multiple specialties
- Meet with local facilities in Kentucky, build relationships
- Find out what more successful states are doing to promote health and wellness for this specific population
- Design clear and informative health and wellness materials
- Begin design on physical activity and nutrition programs to implement within local facilities

Plans Going Forward

Requirements for Each Area

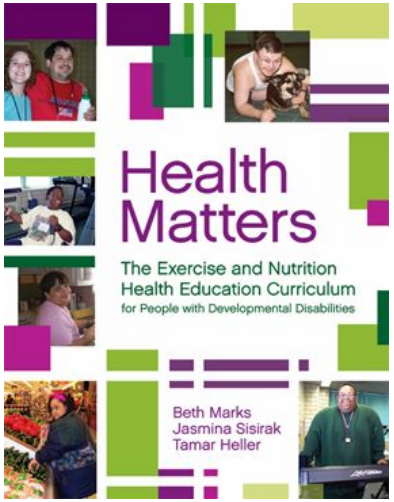
Physical Activity

- Inclusive
- Easily implementable
- Proven results
- Inexpensive

Nutrition

- Affordable
- Rational
- Easily understandable
- Healthy

Health Matters: The Exercise and Nutrition Health Education Curriculum

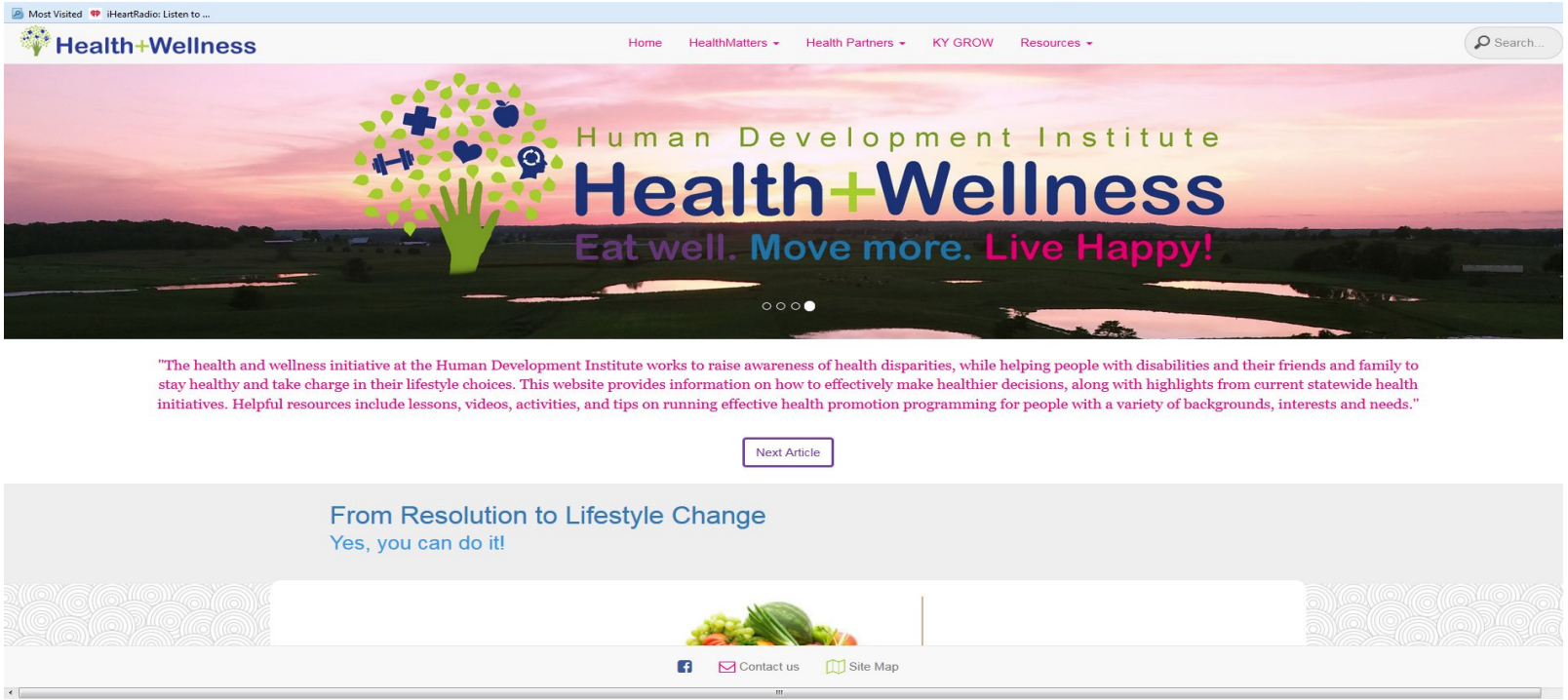


- Evidenced-based curriculum for adults with disabilities
- Interactive and lifelong learning modules
- Understand attitudes toward health, exercise & nutrition
- Identify current behaviors
- Develop clear exercise and nutrition goals and stick to them
- Gain skills and knowledge about exercising & eating nutritious foods
- Support each other during class

Marks, Sisirak, & Heller (2010). Health Matters: The Exercise, Nutrition, and Health Education Curriculum for People With Developmental Disabilities , Brooks Publishing., p. xii

Current Resource Library

http://www.wellness4ky.org/



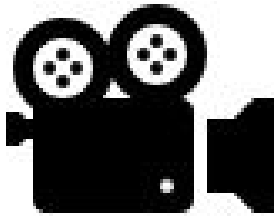
Friendship Salad

http://www.wellness4ky.org/friendship-salad/

Meet the Expert Panel

- ✓ Sylvia Cerel-Suhl, MD, Sanders Brown Center on Aging, University of Kentucky
- ✓ Mark Abel, Ph.D., Associate Professor of Kinesiology, University of Kentucky
- ✓ Sandra Bastin, Ph.D., Professor & Chair, Dietetics and Human Nutrition Department, University of Kentucky
- ✓ Susan Buchino, Ph.D., OTR/L, University of Louisville
- ✓ Melinda Ickes, Ph.D. Assistant Professor in Kinesiology, University of Kentucky
- ✓ Jody Ensman, MS, Program Director of UK Health & Wellness
- ✓ Vivian Lasley-Bibbs, MPH, Acting Director and Epidemiologist, Office of Health Equity,Kentucky Department for Public Health
- ✓ Priya Chandan, MD, MPH, University of Louisville
- ✓ M. Lynn English, PT, MSEd, DPT, University of Kentucky
- ✓ Kathleen Carter Ph.D., MBA, Assistant Professor Education and Human Development University of Louisville

CHEER Resource Development



Expert Panel Meeting (4/17)

Videos:

- Promote diversity: disability, age, ethnicity, geographical area
- On-site recordings (group homes, working kitchens)
- Engage with community leaders for increased buy in

Review Existing Resources:

- Creation of internet based library for easier/more organized access to materials

CHEER Resource Development

Expert Panel Meeting (4/17)

Utilizing students as Health Coaches:

- Expert panelists invited CHEER staff to come speak to classes
- Health coaches can increase motivation and adherence

Resource Ideas:

- Exercising with household items
- Healthy on a budget with recipes and budget strategies
  - Cost and use of leftovers
- What happens to body when you exercise (being sore is good!)

References

1. Stevens, A., Courtney-Long, E., Gillespie, C., & Armour, B.S.. (2014). Hypertension among US adults by disability status and type: National Health and Nutrition Examination Survey, 2001–2010. *Preventing Chronic Disease, 11*, 140162.
2. United Health Foundation (2016). America's health rankings. Retrieved March 22, 2016 from: http://www.americashealthrankings.org/KY/Hypertension.
3. Eberhardt, M.S., & Pamuk, E.R. (2004). The importance of place of residence: Examining health in rural and nonrural areas. *American Journal of Public Health, 94*(10), 1682–1686.
4. Steinberg, M. L., Heimlich, L., & Williams, J. M. (2009). Tobacco use among individuals with intellectual or developmental disabilities: A brief review. *Intellectual and developmental disabilities*, *47*(3), 197-207.
5. Spanos, D., Melville, C. A., & Hankey, C. R. (2013). Weight management interventions in adults with intellectual disabilities and obesity: a systematic review of the evidence. *Nutrition journal*, *12*(1), 1.
6. Anderson, W. L., Wiener, J. M., Khatutsky, G., & Armour, B. S. (2013). Obesity and people with disabilities: the implications for health care expenditures. *Obesity*, *21*(12), E798-E804.
7. N/A
8. Bartlo, P., & Klein, P. J. (2011). Physical activity benefits and needs in adults with intellectual disabilities: Systematic review of the literature. American Journal on Intellectual and Developmental Disabilities, 116(3), 220-232.
9. Durstine, J. L., Painter, P., Franklin, B. A., Morgan, D., Pitetti, K. H., & Roberts, S. O. (2000). Physical activity for the chronically ill and disabled. Sports Medicine, 30(3), 207-219.
10. Bartlo, P., & Klein, P. J. (2011). Physical activity benefits and needs in adults with intellectual disabilities: Systematic review of the literature. American Journal on Intellectual and Developmental Disabilities, 116(3), 220-232.
11. Hamilton, S., Hankey, C. R., Miller, S., Boyle, S., & Melville, C. A. (2007). A review of weight loss interventions for adults with intellectual disabilities. Obesity Reviews, 8(4), 339-345.
12. Heller, T., Hsieh, K., & Rimmer, J. H. (2004). Attitudinal and psychosocial outcomes of a fitness and health education program on adults with Down syndrome. American Journal on Mental Retardation, 109(2), 175-185.
13. Heller, T., Hsieh, K., & Rimmer, J. (2003). Barriers and supports for exercise participation among adults with Down syndrome. Journal of Gerontological Social Work, 38(1-2), 161-178.
14. Johnson, C., Hobson, S., Garcia, A. C., & Matthews, J. (2011). Nutrition and Food Skills Education: For Adults with Developmental Disabilities. Canadian Journal of Dietetic Practice and Research, 72(1), 7-13.
15. Rimmer, J. H., & Yamaki, K. (2006). Obesity and intellectual disability. Mental retardation and developmental disabilities research reviews, 12(1), 22-27.
16. Williams, K. E., Gibbons, B. G., & Schreck, K. A. (2005). Comparing selective eaters with and without developmental disabilities. Journal of Developmental and Physical Disabilities, 17(3), 299-309.
17. Van Riper, C. (2010). Position of the American Dietetic Association: Providing nutrition services for people with developmental disabilities and special health care needs. Journal of the American Dietetic Association, 110(2), 296-307.
18. Spanos D., Melville, C.A., & Hankey, C.R> (2013). Weight management interventions in adults with intellectual disabilities and obesity: a systematic review of the evidence. Nutrition journal, 12(1), 1.
19. Anderson, W. L., Wiener, J. M., Khatutsky, G., & Armour, B. S. (2013). Obesity and people with disabilities: the implications for health care expenditures. Obesity, 21(12), E798-E804.
20. Durstine, J. L., Painter, P., Franklin, B. A., Morgan, D., Pitetti, K. H., & Roberts, S. O. (2000). Physical activity for the chronically ill and disabled. Sports Medicine, 30(3), 207-219.
21. Bartlo, P., & Klein, P. J. (2011). Physical activity benefits and needs in adults with intellectual disabilities: Systematic review of the literature. American Journal on Intellectual and Developmental Disabilities, 116(3), 220-232.
22. Klatsky, A. L. (1996). Alcohol and hypertension. Clinica Chimica Acta, 246(1), 91-105.
23. Humphries, K., Traci, M. A., & Seekins, T. (2009). Nutrition and Adults With Intellectual or Developmental Disabilities: Systematic Literature Review Results*. Intellectual and developmental disabilities, 47(3), 163-185.
24. Gravestock, S. (2000). Eating disorders in adults with intellectual disability. Journal of Intellectual Disability Research, 44(6), 625-637.

THANK YOU!