

NUTRITION AND HEALTH EDUCATION IN RURAL AND URBAN AREAS OF KANSAS



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Overview

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- ❑ **PUBLIC HEALTH PERSPECTIVE**
- ❑ **U.S. DIETARY PATTERNS**
- ❑ **NUTRITION EDUCATION**
- ❑ **EXPERIENCE DESCRIPTION**
- ❑ **PROGRAM BACKGROUNDS**
- ❑ **FIELD EXPERIENCE APPLICATION**
- ❑ **REFLECTION**

Public Health Perspective

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“Public Health is the science of **protecting and improving** the health of communities through **education**, promotion of healthy lifestyles, and research for disease and injury prevention. Public health professionals analyze the effect on health of genetics, **personal choice** and the **environment** in order to develop programs that protect the health of your family and **community**.”

— American Public Health Association



http://www.ca.uky.edu/HES/admin/tiny_mce/jscripts/tiny_mce/plugins/image_manager/files/NEP.jpg



<http://thehelpinstitute.org/wp-content/uploads/2010/06/HelpingHands.jpg>



<http://f00.inventorspot.com/images/children-jump.jpg>

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U.S. Dietary Patterns

U.S. Dietary Patterns

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- **Southern**—Fried, Processed Meats and Sugar Sweetened Beverages
- **Traditional**—Chinese and Mexican Food, Pasta Dishes, Pizza, Soup, and Frozen or Takeout Meals
- **Healthy**—Mostly Fruits, Vegetables, and Grains
- **Sweets**—Large Amounts of Sweet Snacks and Desserts
- **Alcohol**—Proteins, Alcohol, and Salads

Lack of Fruits and Vegetables

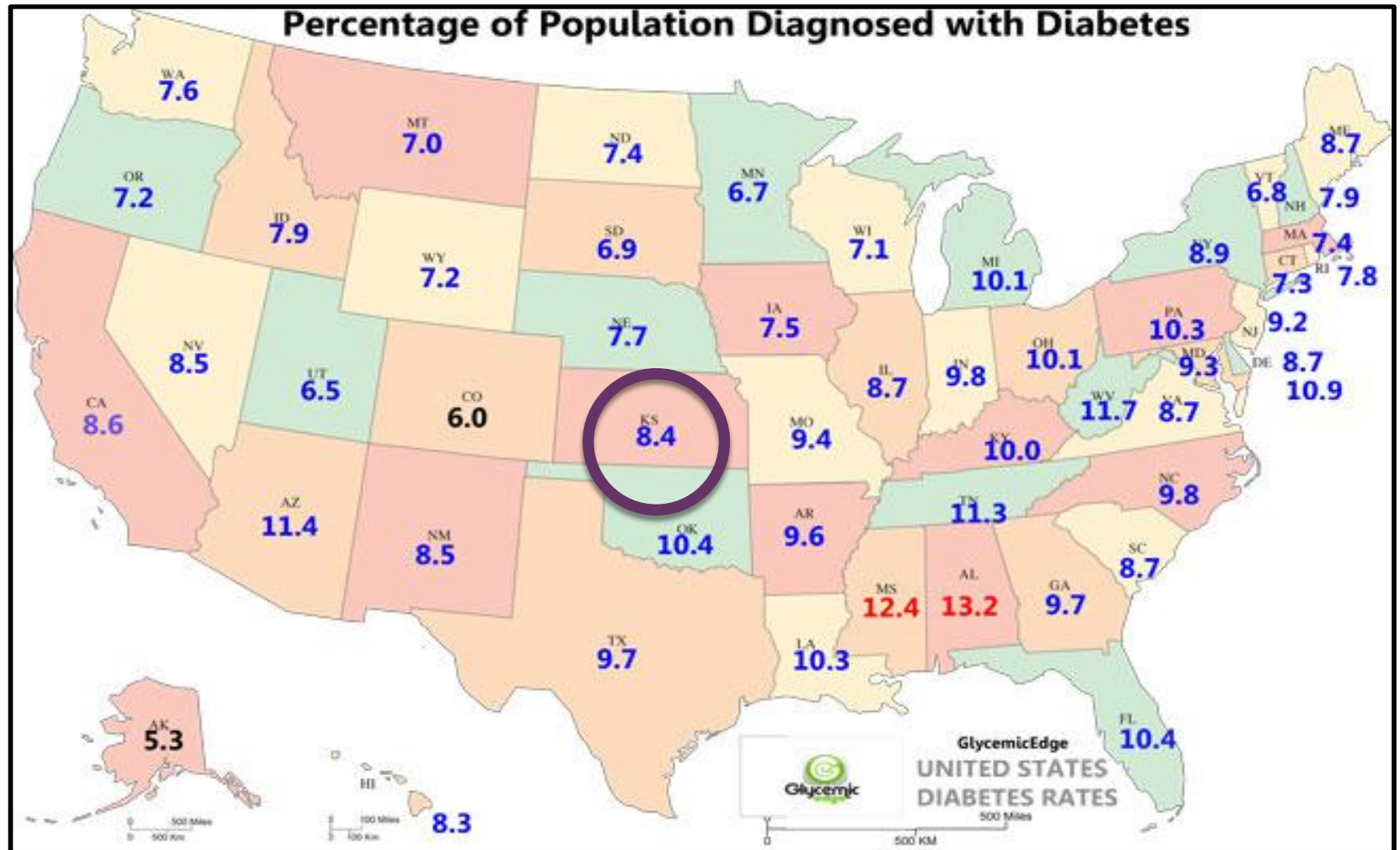
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Fruit and Vegetable Consumption Among Adults, 2009 **View 50-State Comparison**

	KS %	US %
% of Adults Consuming Fruit 2 or More Times per Day	23.8% ₁	32.5% ₁
% of Adults Consuming Vegetables 3 or More Times per Day	26.0% ₁	26.3%

Health Concerns

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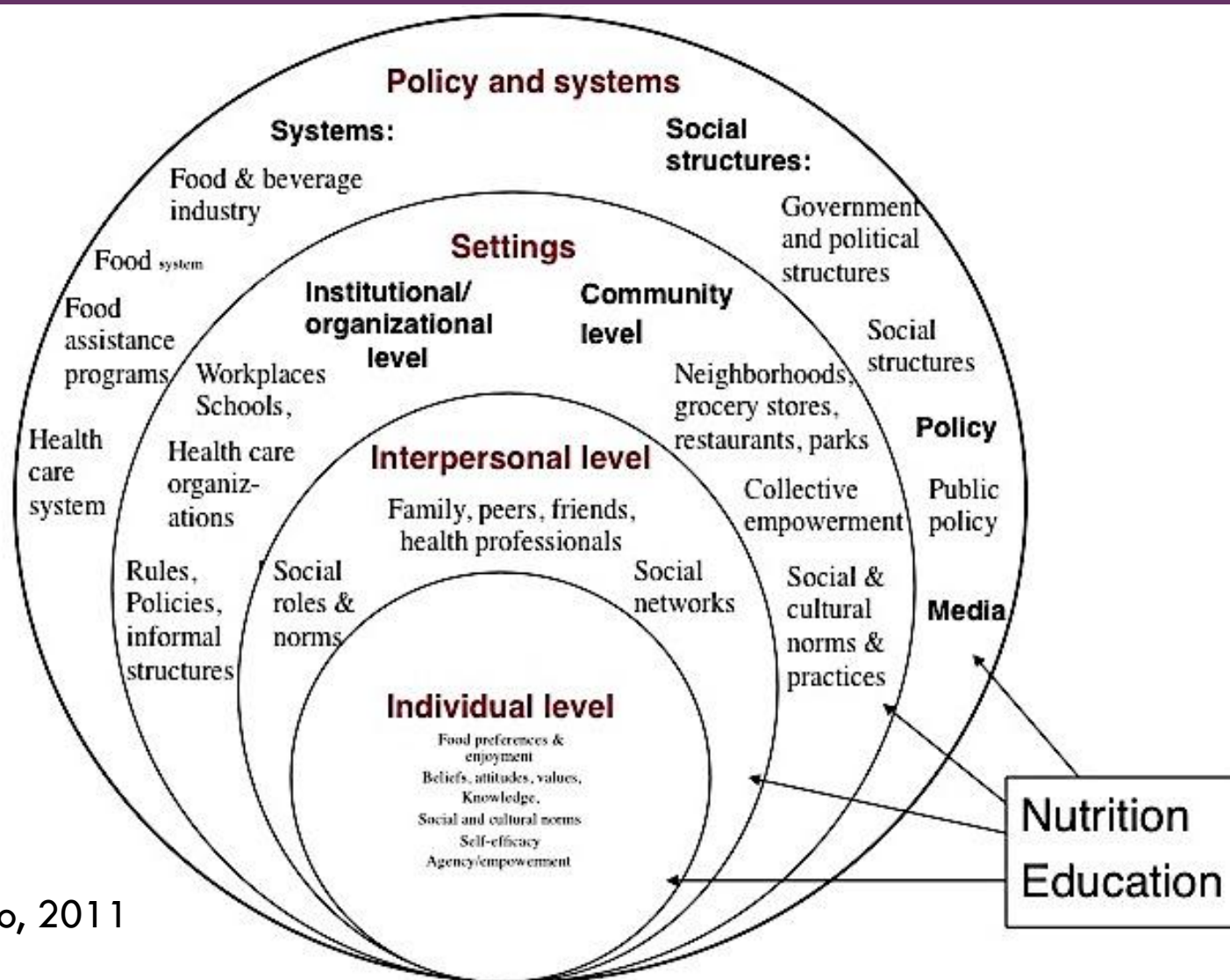


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Nutrition Education

A Complex Choice

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Food Choice Environment

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- ❑ 50,000 Grocery Items , 10,000 New Each Year
- ❑ Label Miscommunication
- ❑ Consumer Confusion



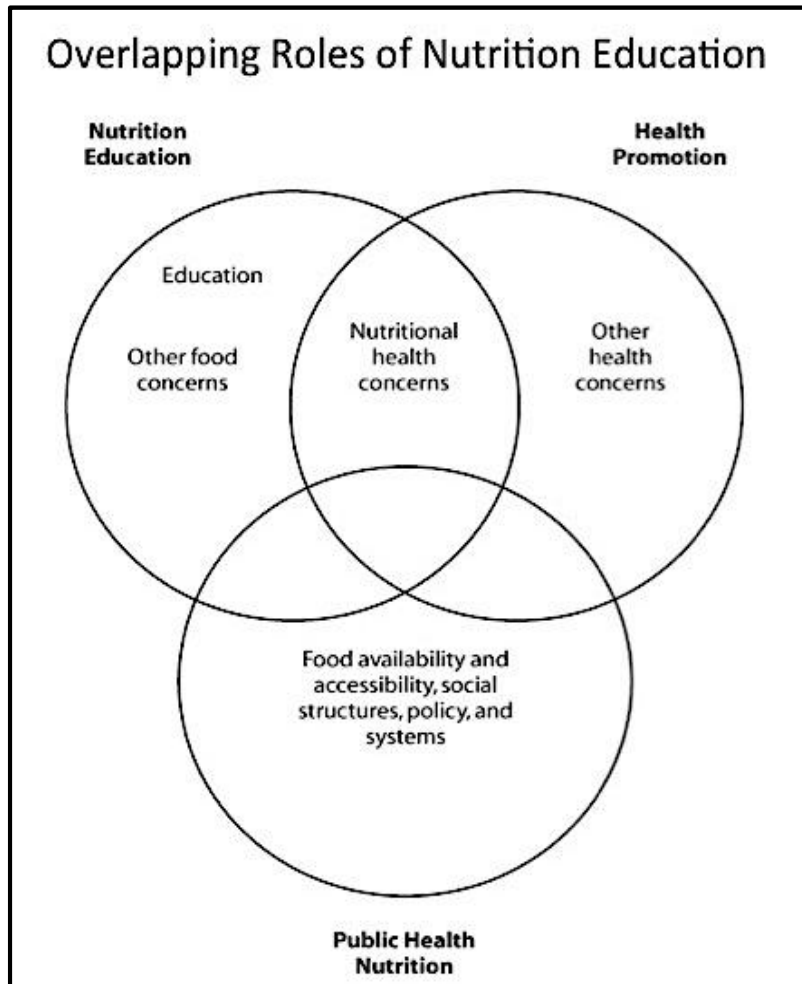
The Need

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- Variety of Education Topics/Programs
- Reducing the Gap Between Nutrition and Health
- Little Understanding of Nutrition Labels and Food Products
- Transfer of Knowledge to Next Generation

The Nutrition Educator Role

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- Nutritionist
- Health Promoter
- Role Model
- Strategist
- Motivator

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Project Description

Objectives

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- ❑ Learn to Organize and Facilitate EFNEP Nutrition Education Programs
- ❑ Experience the Challenges and Successes of Recruiting for Nutrition Programs and the Overall Organizing Process of Health Education programs
- ❑ Attain the Skills to Create and Analyze Evaluation Forms so Improvements Can Be Made to Programs and Materials Can Be Adjusted to Fit the Needs of the Community at Hand
- ❑ Improve Skills in Oral Communication with Nutrition Education Classes and School Programs (including multilingual needs)
- ❑ Directly Observe Public Health Education and Prevention Through Kansas Programs

Objectives (Continued)

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- Enhance Skills to Create Relationships With Businesses and Other Organizations to Provide Nutrition Education and Communication to the Community
- Improve Written Communication Skills by Creating Chronic Disease and Health Informational Pamphlets
- Develop Counseling Skills for Patients in a Medical Clinic by Working at JayDoc Free Health Clinic
- Seek the Association Between Core Classes and Electives of the Master's of Public Health Program and Field Experience

Activities

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- ❑ Facilitate and Complete EFNEP Programming at the Flint Hill's Job Corps
- ❑ Continue EFNEP Classes With Riley County Residents
- ❑ Organize and Teach Nutrition Programs Within USD 378 and USD 383
- ❑ Create Relationships with Local Businesses and Health Organizations to Benefit Public Health Extension Programs
- ❑ Research and Create Informational Products About Current Health Issues for the Public

Activities (Continued)

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- Experience Different Events and Programs Organized By KSRE
- Instigate and Establishing a Feasible and Creditable Diabetes Curriculum for JayDoc Free Clinic with the Help of Directors, Dietetic Students and Medical Students of University of Kansas School of Medical
- Educate JayDoc Free Clinic Patients About Nutritional Needs For Diabetes Type 2 and Overall Health and Wellness.
- Utilize the Core Classes and Electives of the Master's of Public Health Program to Establish a Well-Rounded Field Experience to Prepare for Future Endeavors.

Anticipated Outcomes

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- Informational Packets for Chronic Diseases
- Expanded Food and Nutrition Education Program
 - 70% Completion
 - Administer 24-HR Recalls and Surveys
- A Compilation of Community Health Events and Presentations
- □ Jay Doc Free Clinic

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Program Backgrounds

Kansas State Research and Extension (KSRE)

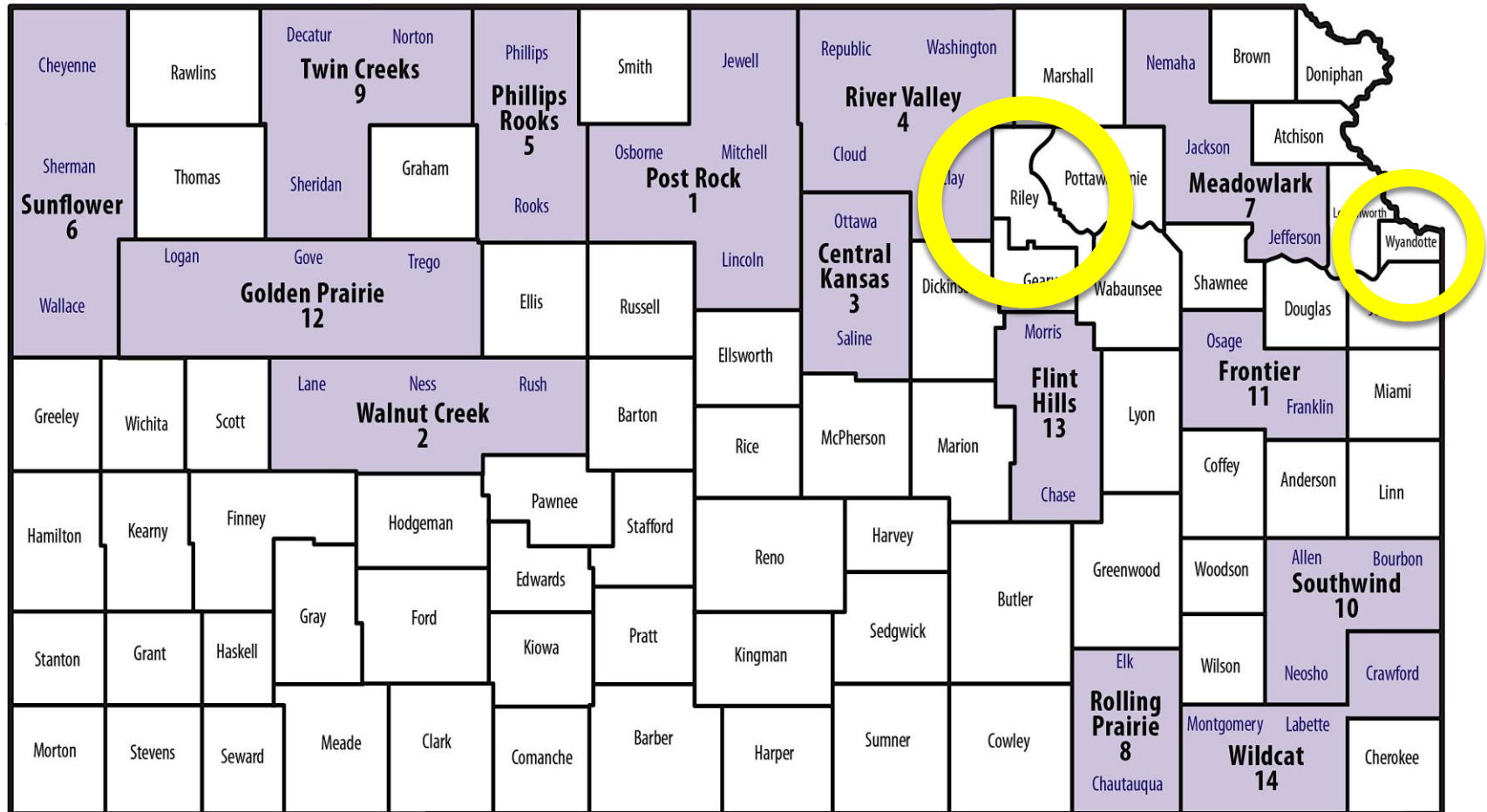
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- **Extension** is defined as **reaching out**, and along with teaching and research, land-grant institutions, such as Kansas State University, **extend** their resources, create solutions for public issues and questions with university resources from “non-formal, non-credit programs”.
- 1914- Smith Lever Act
- Adapting to the Public’s Need



Kansas State Research and Extension (KSRE)

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Expanded Food And Nutrition Education Program (EFNEP)

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- 1960s- Pilot Studies
- Strong Relationship With Research and Extension
- Located in Over 800 Counties in All 50 States and The Six United States (U.S.) Territories
- Unique Program Facilitation

EFNEP

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□ Client Eligibility

- Low Socioeconomic Status
- Primary Caretaker

□ Adapting to the Public's Need

- Procter 2011

JayDoc Free Clinic

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- A Medical Student's Dream
- Volunteer Based Clinic
- Non-Emergent Care
- Over 2,000 Patients Served Annually
- New Programs and Activities



JAYDOC FREE CLINIC
OFFICIAL VOLUNTEER SITE



http://www.kumc.edu/images/logos/kumclogo_2color.png
Jaydofreeclinic.org

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Field Experience Application

Field Experience Planning

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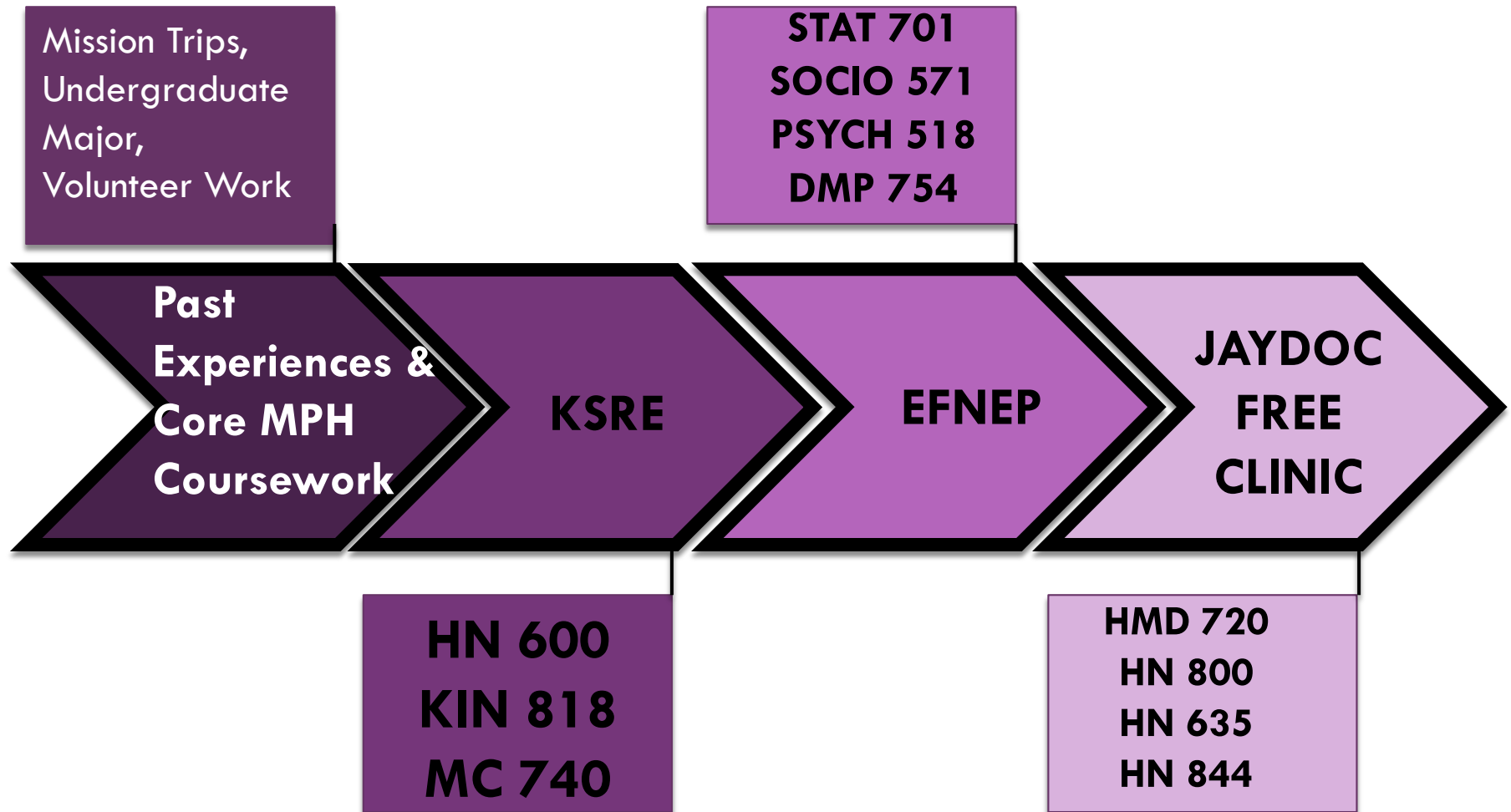
Healthy
People
2020

- Social Determinants of Health*
- Early and Middle Childhood*
- Health-Related Quality of Life and Well-Being*
- Educational and Community-Based Programs

* A New Addition to Previous 2010 Healthy People Objectives

Development of the Practicum

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KSRE: Activities & Products

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- Health Promotion and Informational Products
- Nutrition Education Programs
 - USD 378
 - USD 383
- Health Presentations and Informational Displays
 - Healthily Ever After
 - The Sweet Scoop
 - Compost 101



Health Informational Tools

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Kansas State Research and Extension

Gestational Diabetes

What Is Gestational Diabetes (GDM)?

Gestational (jes-TAY-shun-ul) **Diabetes** is

usually diagnosed during the first pregnancy. This type of diabetes acts the same way as regular diabetes but affects mom and baby. So... What is diabetes? If you have diabetes, this

means that your blood sugar is too high. Your body uses sugar (glucose) for energy. **BUT** too much glucose in your blood can be harmful. We do not know what causes gestational diabetes, but we have some clues. Hormones from the placenta help the baby grow. Sometimes these hormones can block the action of the mother's

insulin to her body. This is called insulin resistance, another way to describe gestational diabetes.

SYMPTOMS:

- Constant Thirst
- Frequent Urination
- Extreme Hunger
- Blurred Vision.



Are You at Risk?

“In the United States, 135,000 cases of gestational diabetes occur each year.”

- American Diabetes Association

It seems that more women are experiencing this problem. To the right you will see a check list that will help you learn about your risks. Please talk to your doctor at your **FIRST** prenatal visit.

To see if you are at risk, check all that apply:

- ☐ I have a parent or sibling with diabetes
- ☐ I am African American, American Indian, Asian American, Hispanic/Latino, or Pacific Islander
- ☐ I am 25 years old or older
- ☐ I am overweight
- ☐ I have had gestational diabetes before, or I have given birth to at least one baby weighing more than 9 pounds.
- ☐ I have been told that I have “pre-diabetes,” “impaired glucose tolerance,” or “impaired fasting glucose.”

If you have checked one of more of the boxes, you could be at risk for Gestational Diabetes.

PAGE 2

When Will I Be Checked?

Depending on your past medical history and estimated risk factors, your doctor will decide when is the best time to check for gestational diabetes.

There are **3 levels of risk**.

- **Low risk**, your doctor may decide you do not need to be checked.
- **Average risk**, you will

be tested sometime between weeks 24 and 28 of your pregnancy.

- **High risk**, your blood sugar level may be checked at your first prenatal visit. If your test results are normal, you will be checked again around week 24 of your pregnancy.

Remember—Do not be afraid. Ask questions about testing at anytime before or during your pregnancy.



“Out of every 100 pregnant women in the United States, 3 to 8 get gestational diabetes”

-NIDDK

(Adapted from Diabetes and Pregnancy and Diabetes Research)



How is Gestational Diabetes Diagnosed?

Your health care team will check your blood sugar (glucose) level. Depending on your risk and test results, you may have one or more of the following tests:

Fasting Blood Glucose

Before this test, your doctor or nurse will ask you to fast. Fasting means that you will have nothing to drink or eat for 8 hours. This test is usually done in the morning. By not eating or drinking anything, the body will be “empty” and the actual glucose level in your blood can be tested without the added sugars found in food and beverages.

Random Blood Glucose

If your doctor does not perform a fasting blood glucose test, he or she may check your blood glucose at a random part of the day.

Screening Glucose Challenge Test

For this test, you will drink a sugary beverage and have your blood glucose checked an hour later. This test can be done at anytime of the day. If results are normal, you may need others.

Oral Glucose Tolerance Test

If you have this test, your nurse or doctor will give you special directions to follow. They will be somewhat like this—For at least 3 days before your test, you should eat normally. Then, you will fast for at least 8 hours before the test. The nurse will check your blood glucose level before the test. You will then drink a sugary beverage. The nurse will check your levels at 1 hour, 2 hours, and 3 hours. If your levels are above normal at least twice, you have gestational diabetes.

Health Informational Tools

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HIGH BLOOD PRESSURE: THE SILENT KILLER

A Guidebook for Prevention and Awareness

What is Blood Pressure?

Blood pressure is the force of blood against the walls of arteries. Your blood pressure is highest when your heart contracts and is pumping blood. This is systolic blood pressure. When your heart rests between beats, your blood pressure falls. This is called diastolic blood pressure. Blood pressure is always given as these two numbers. The numbers are usually written one above the other with systolic first.

Example: 120 systolic (sis-TOL-ik)
80 diastolic (di-a-STOL-ik)

Who is at Risk?

High blood pressure is very common in United States. If you can check one or more boxes, you might be at risk or have High Blood Pressure.

- ☐ African American
- ☐ Middle-aged or over 55 years
- ☐ Overweight/Obese
- ☐ Family History of HBP
- ☐ Tobacco Use (Smoking) or Excessive Alcohol Use

What Causes High Blood Pressure?

! Certain medical problems, such as chronic kidney disease, thyroid disease and sleep apnea, may cause blood pressure to rise.

! Sometimes certain medicines can raise blood pressure. (asthma medicines, corticosteroids, cold-relief products)

! In some women, blood pressure can go up if they use birth control pills, become pregnant, or take hormone replacement therapy

High Blood Pressure can develop in anyone, no matter age, race, or gender. The medical term for this is hypertension. This guidebook provides useful information to help prevent or control high blood pressure.

“A serious illness that affects nearly 65 million adults in the United States.”

- Food and Drug Administration

Locations for Self Readings:

Walgreens
Walmart
Target
Free Clinics

The Number Game: What's Yours?

Category	Systolic (mm/Hg)		Diastolic (mm/Hg)
Normal	120 or less	&	80 or less
Pre-hypertension	120-139	or	80-89
HBP- Stage 1	140-159	or	90-99
HBP- Stage 2	160 or higher	or	100 or higher

Understanding Your Number:

! Strive for 120/80 mmHg

! “Prehypertension” means you are likely to end up with High Blood Pressure, UNLESS you take steps to prevent it.

! If blood pressure numbers are in different categories- consider yourself in the most severe one. For example if!

- your reading is 160/80 mmHg, you have Stage 2 HBP.

! If diabetic, 130/80 mmHg is considered HBP

Tips for Having Your Blood Pressure Taken:

1. Do not drink coffee or smoke cigarettes 30 minutes before measurement.
2. Wear short sleeve shirts, so arm is exposed.
3. Go to the bathroom prior to reading. A full bladder can change your blood pressure reading.
4. Get two readings, taken at least 2 minutes apart.
5. Ask the doctor or nurse to tell you the blood pressure reading and write it down.

High blood pressure is dangerous because it overworks the heart and hardens the arterial walls (blood vessels that carry blood away from the heart). It is important to check your blood pressure at least once a year, because in most cases there are no symptoms until it is too late.

High Blood Pressure can cause:

- ! The heart to get larger or weaker, which may lead to heart failure. Heart failure is a condition in which the heart cannot pump enough blood throughout the body.
- ! Aneurysms (AN-u-risms) to form in blood vessels. An aneurysm is an abnormal bulge or “ballooning” in the wall of an artery. Common spots for aneurysms are the main artery that carries blood from the heart to the body; the arteries in the brain, legs, and intestines; and the artery leading to the spleen.
- ! Blood vessels in the kidney to narrow. This may cause kidney failure.
- ! Arteries throughout the body to narrow in some places, which limits blood flow (especially to the heart, brain, kidneys, and legs). This can cause a heart attack, stroke, kidney failure, or amputation of part of the leg.
- ! Blood vessels in the eyes to burst or bleed. This may lead to vision changes or blindness.



http://media.onsugar.com/files/ons/1192/1922729/41_2009/467aa

Healthily Ever After

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Healthily Ever After Cookbook



Humpty Dumpty's No "Fall" Snack

- 2 C. mini pretzels
- 2 C. chocolate graham cracker cookies
- 1 C. mini marshmallows
- 1 C. peanut butter chips
- 1 C. mini chocolate chips

Mix together and store in a gallon sized plastic bag or in a sealed container.

Miss Muffet's Merry Mix

- 2 C. Apple Cinnamon O's cereal
- 1 C. assorted dried fruit mix
- 1 C. yogurt covered raisins
- 1 C. granola pieces

Mix well. Store in well sealed container

K-State Research & Extension is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to physical, vision, or hearing disability or a dietary restriction please contact Ginny Barnard at 785-537-6350 or email: ginnby@ksu.edu





- Designed to Assist Limited-Resource Audiences
- Family Based
- Goal to Improve the Total Family Diet and Nutritional Well-Being
- Combines Multiple Organizations
 - K- State Research and Extension
 - Flint Hill's Job Corps
 - WIC



Client Demographics

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□ **Flint Hill's Job Corps**

- 14 Clients
- 17-23 Years
- 45% Had 2 Children Under the Age of 5
- 60% of Clients Did Not Complete High School

□ **Manhattan Residents**

- 4 Clients
- 23-64 YO
- Variety of Family Size
- 100% of Clients Completed High School



Lesson Criteria

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- **Week 1**— Introduction to EFNEP/My Pyramid: Steps to a Healthier You
- **Week 2**— Choose, Plan, Do for a Healthier You/Children/Limit TV
- **Week 3**— Choosing More Fruits and Vegetables
- **Week 4**— “*Portion Distortion*”: Smart-size Your Portions and Right-size You
- **Week 5**— “*Smart Shopping!*” Shop: Get the Best for Less/ Shop for Value, Check the Facts
- **Week 6**— Fix it Safe
- **Week 7**— “*Meal Time Mania!*” : Making Smart Breakfast Choices/Making Smart Lunch Choices/Plan: Know What’s for Dinner
- **Week 8**— “*Nutrition Smarts!*” Making Smart Choices When Eating Fast Food/Make Smart Choices When Eating Out/Making Smart Drink Choices
- **Week 9**— Conclusion/ Review



Sample Lesson

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- Introduction Game
- Review From Previous Week
- Lesson Topic
 - Movement Activity
 - Handouts
- Recipe/Group Cooking
- Discussion/Review of Material



Data Collection Forms

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Name: _____

Date Taken: _____

Check which food record:

Record ☐ Yes ☐ No ☐ Yes ☐ No ☐ Yes ☐ No





EFNEP Eating Right Checklist

PA's Name: _____ PA's ID # _____ Date: _____

Home Maker's Name: _____ ☐ Entry ☐ Exit Client's ID #: _____

☐ Check if Interview

This is a survey about ways you plan and fix foods for your family. As you read questions, think about the recent past. This is not a test. There are no wrong answers. If you do not have children, just answer the questions for yourself.

For these questions, think about how you usually do things. Please put a check in the box that best answers each question.	(1) Never	(2) Seldom (Almost Never)	(3) Some- times	(4) Most of the time	(5) Almost Always
(1) How often do you plan meals ahead of time?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(2) How often do you compare prices before you buy food?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(3) How often do you run out of food before the end of the month?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(4) How often do you shop with a grocery list?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(5) This question is about meat and dairy foods. How often do you let these foods sit out for more than two hours?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(6) How often do you thaw foods at room temperature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(7) When deciding what to feed your family, how often do you think about healthy food choices?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(8) How often do you eat or prepare foods without adding salt?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(9) How often do you use the "Nutrition Facts" on the food label to make food choices?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(10) How often do your children eat something in the morning within two hours of waking up?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(11) How often do you eat meals or snacks with one or more family members?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Teaching Outcomes

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- **77% Completed Criteria**
 - 11 Job Corps Clients
 - 3 Riley County Clients

- **Dietary Intake**
 - **80%** Positive Change in Vegetable Consumption
 - Sodium Intake
 - RL – 50% **Reduced** Original Intake



Teaching Outcomes

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□ **Physical Activity**

- **32%** Increase- Moderate Physical Activity
- **100%** Participation in Class

□ **Behavioral Changes**

- **50%** Improvement in Planning Meals
- **40%** Improvement in Utilization of Grocery Lists
- **44%** Improvement of Nutrition Label Readings
- **40%** Improvement in Choosing Healthy Foods
- **45%** “Almost Always” Had Family Meal Time
- **10%** Increase in Demonstrating “Acceptable Practices of Food Resource Management”



JayDoc Free Clinic

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- Collaboration With Other Health Professionals and Students
- Program Planning
- Assessing The Need



Why A Nutrition Education Program?

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- Little Nutrition Education During Clinical Appointments
- High Turnover of Patients and Volunteers
- Bridging the Gap Between Medication, Nutrition, Physical Activity, and Disease



<http://www.diabetestreatment365.com/wp-content/uploads/2011/07/1310051840-37.jpg>



U.S. Diabetes Conversation Maps

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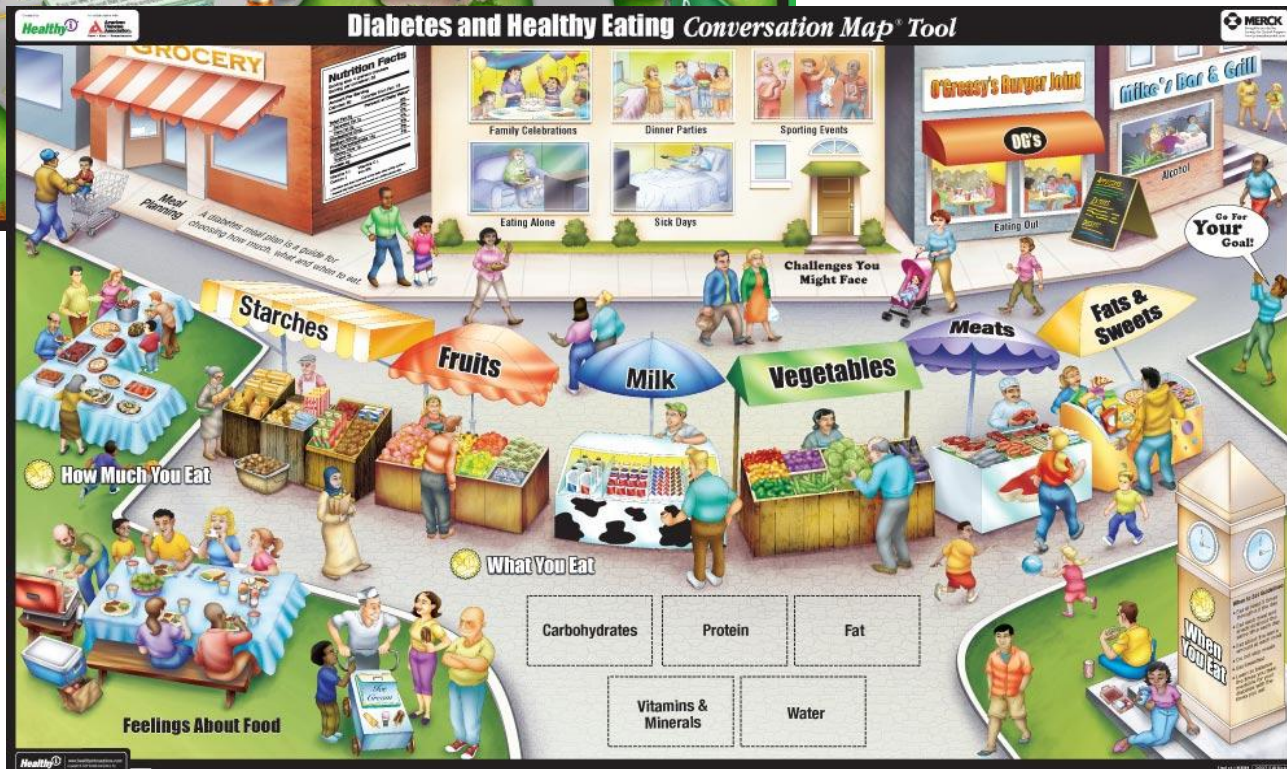
- Peer-Based Education
- Colorful and Interactive
- American Diabetes Association Approval

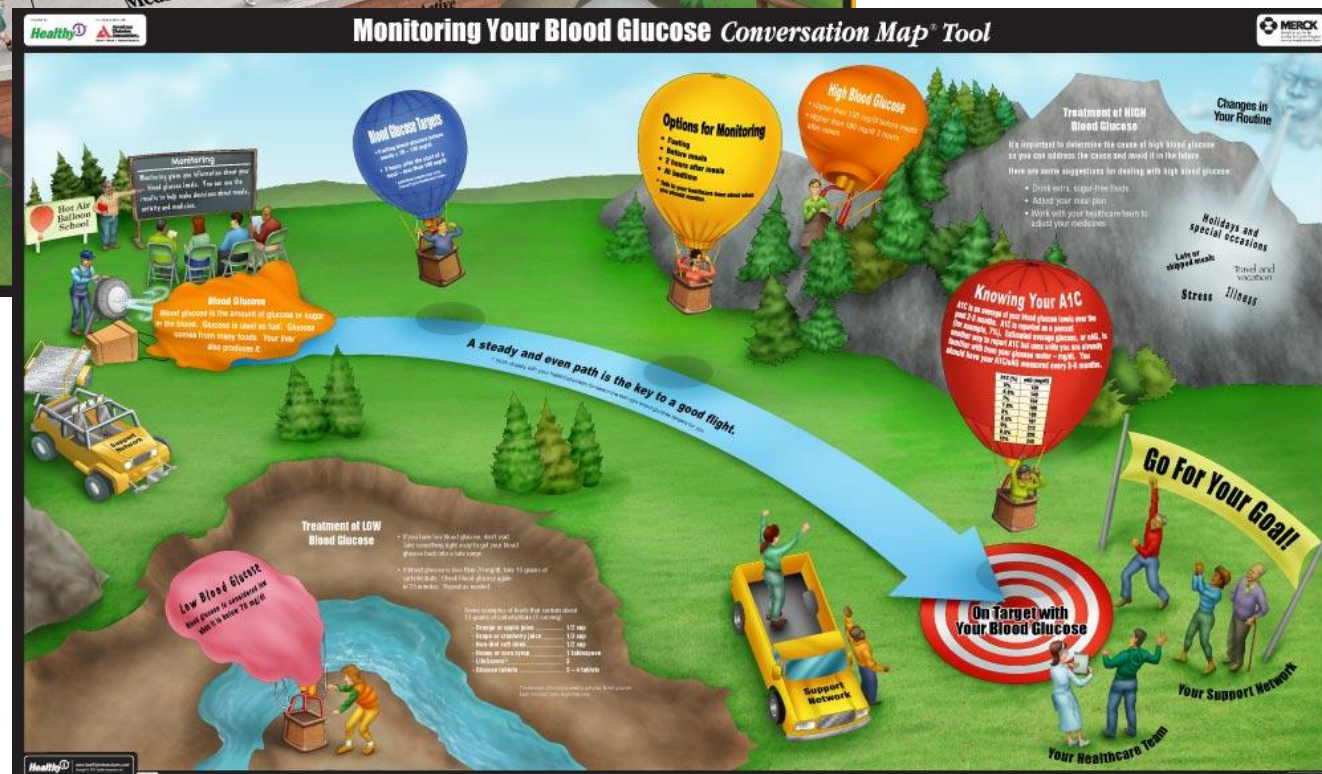
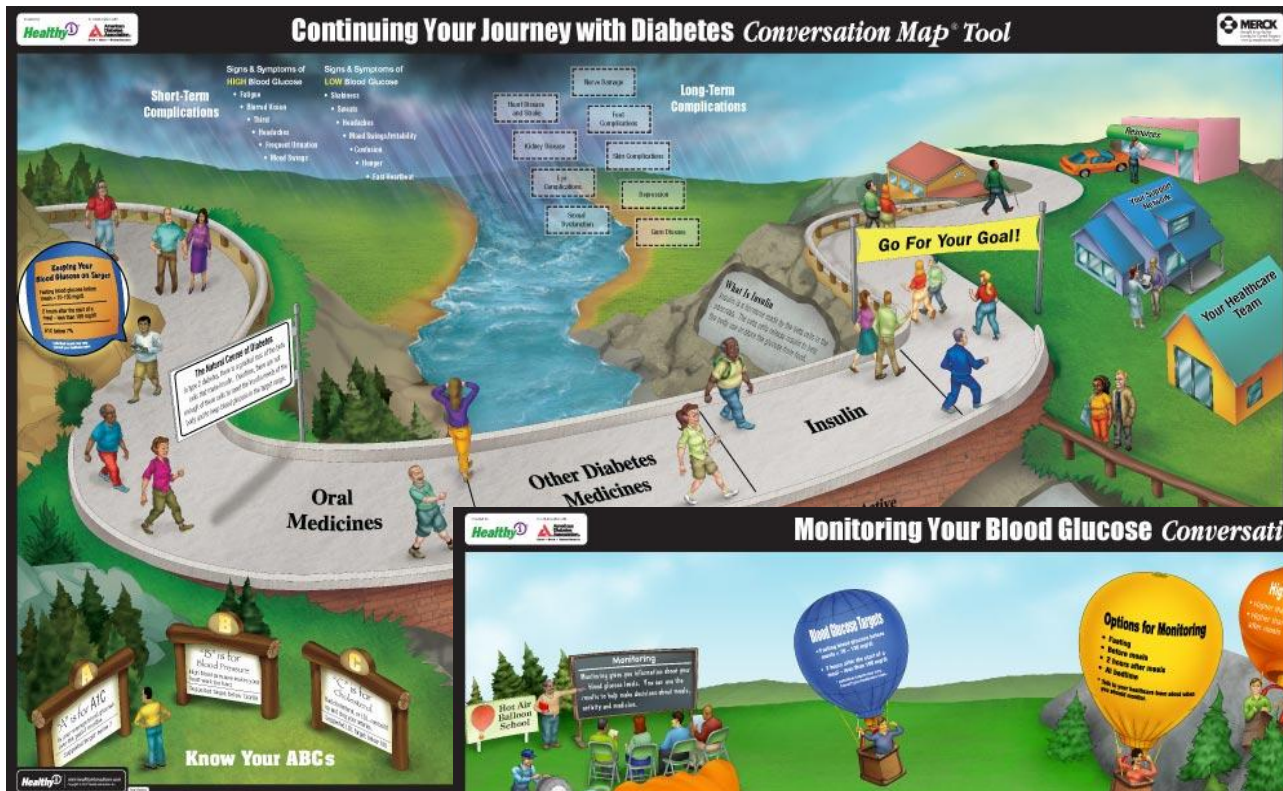


Healthyⁱ

 **American
Diabetes
Association®**
Cure • Care • Commitment®







Sessions

44

- 4 Total Sessions Paired with Hemoglobin A1c/Check-up with Medical Students
- 1.5-2 Hours
- Peer Discussion
 - Review of Information/Chart
 - Facilitator Asking Basic Question to Instigate Discussion
 - Utilization of Map and Interactive Tools



Teaching Outcomes

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- 20 Patients From the Initial 30 Participated
- 100% Have Scheduled Second Appointment
- 50% of Patients Have Made All Four Appointments
- 90% of the Map 1 Found the Program Extremely Useful and Planned on Bringing a Family Member(s) to the Next Session
- The First Group to Complete the Program Will Finish in Fall 2012



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Reflection

Personal Gain

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- Extremely Rewarding
- EFNEP Success Story
- Perspective on Peer-Education
- Utilization of Courses, Intrapersonal Skills, and Nutrition Knowledge



Challenges

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□ KSRE

- Graduate Writing Vs. Public Writing

□ EFNEP

- Administering the 24-Hour Recall and Behavioral Survey
- Lesson Time Frame

□ JayDoc

- Nutrition Education is Not a Top Priority
- Implementing a New Program

Conclusion

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□ Comprehensive Experience

- Course Work
- Past Experiences
- Phases of Practicum



□ Areas of Interest

- Childhood Obesity, Nutrition Education, and Diabetes Prevention and Maintenance Education

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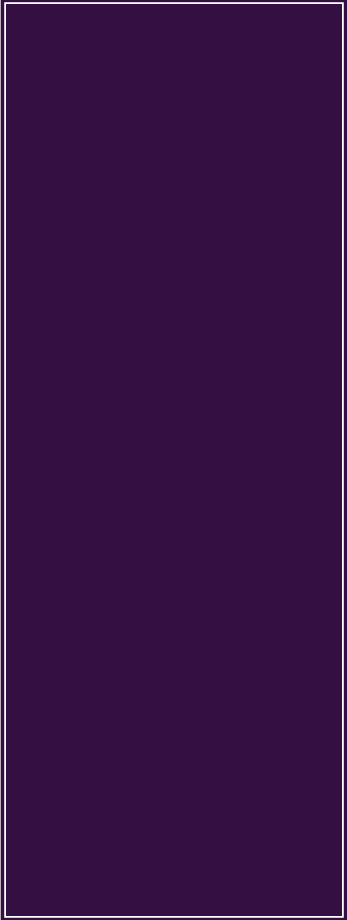
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Acknowledgments

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- Dr. Sandy Procter
 - Ginny Barnard, MPH
 - Dr. Tandalayo Kidd
 - Dr. Paula Peters
 - Dr. Mark Haub
 - Dr. Mary Higgins
 - Dr. Michael Cates
 - Barta Stevenson, M.S.
 - K-State Research and Extension
 - Manhattan Community
 - The Flint Hill's Job Corps
 - JayDoc Free Clinic

*Knowledge
for Life*