As demonstrated by today’s presentation, the Missouri City (TX) Chapter’s year-long journey of change with the students of E-STEM Academy, a Title I school, showcases a strategic approach to behavior modification, nutrition selection, and lifestyle choices designed to impact the entire family through its intergenerational program.
Target Group

• The “Passport to S.T.E.M.ulating Healthy Lifestyles” is a bi-monthly mentoring program designed to serve an intergenerational audience which includes 50 middle school female students, their mothers and grandmothers at E-STEM Academy, a Title school.
Target Group

• The “Passport to S.T.E.M.ulating Healthy Lifestyles” is a bi-monthly mentoring program designed to serve an intergenerational audience which includes 50 middle school female students, their mothers and grandmothers at E-STEM Academy, a Title school.

• The name **Sassy Ladies** is used to distinguish the girls from their peers.
Defining the Problem

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- African Americans and Hispanic Americans are at highest risk.
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• Seven out of 10 Americans die from chronic disease each year when most of these deaths were preventable.
• About 133 million Americans or 1 of 2 adults have at least one chronic illness; and 58% are between age 18 and 64.
• African Americans and Hispanic Americans are at highest risk.
• Lack of physical activity, poor nutrition, tobacco, and alcohol consumption accounts for the majority of deaths.
Health Initiative Focus

The PASSPORT program’s health initiative focuses on the six (6) most prevalent chronic diseases in the African American community:

- Heart Disease
- Stroke
- Cancer
- Diabetes
- OBESITY
- Hypertension
Prevalence

Due to socio-economic realities in the African American and Hispanic communities, there is a higher incidence of contracting one of these chronic health conditions through poor nutritional and lifestyle choices.
OBESITY

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• Obesity is also associated with increased cholesterol, sleep apnea, asthma, and osteoarthritis.
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- Being Obese (BMI > 30) increases the risk of having any of these Chronic illnesses.
- Obesity is also associated with increased cholesterol, sleep apnea, asthma, and osteoarthritis.
- Obese people also have a shorter life span than people with a healthier weight. There is a six- (6) to seven- (7) year decrease in one’s life by the age of forty (40). This continues with accelerating age and weight.
Increased Risk of Obesity

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• People who sleep too little are more likely to become obese than those that sleep the recommended nine (9) hours per night.
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- People who sleep too little are more likely to become obese than those that sleep the recommended nine (9) hours per night.
- Long term use of medications (i.e. antidepressants) may lead to obesity.
Goals and Objectives

1. To educate an inter-generational audience, i.e., students, mothers and grandmothers, on the etiology of the six (6) most common chronic diseases.
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2. To empower the target audience to make better long term lifestyle choices.

3. To empower the target audience to make positive health decisions that may not reflect the norms of their community through improved self-esteem.
4. To expose the target audience to health careers and instill the desire to be high achievers in their middle and high school S.T.E.M. education in order to be prepared to pursue the S.T.E.M. careers of their choice.
Goals and Objectives

4. To expose the target audience to health careers and instill the desire to be high achievers in their middle and high school S.T.E.M. education in order to be prepared to pursue the S.T.E.M. careers of their choice.

5. To teach the target audience, behavior modification strategies that can be used to implement healthier lifestyles.
“Passport to S.T.E.M.ulating Healthy Lifestyles” is an innovative and collaborative program with multiple corporate and university partners seeking to modify unhealthy behavioral choices and patterns through a bi-monthly mentoring program serving fifty (50) minority female students, their mothers, and grandmothers at E-STEM Academy, a Title I charter school.
Strategic Alliances

1. Texas Children’s Hospital
2. Baylor College of Medicine
3. Omni Hotel Houston
4. American Heart Association
5. Prairie View Nursing Program
6. Texas Southern University
Implementation

A Three-Tier Approach

Tier I introduces the students to the preponderance of unhealthy lifestyles that permeate their community.
Implementation

*A Three-Tier Approach*

**Tier I** introduces the students to the preponderance of unhealthy lifestyles that permeate their community.

**Tier II** educates the students, mothers and grandmothers on the importance of modeling healthy lifestyles in the home environment, beyond the field experience.
Implementation

A Three-Tier Approach

Tier I introduces the students to the preponderance of unhealthy lifestyles that permeate their community.

Tier II educates the students, mothers and grandmothers on the importance of modeling healthy lifestyles in the home environment, beyond the field experience.

Tier III seeks to modify the intergenerational unhealthy lifestyle choices through use of the “Passport” and “Behavior Modification Model”.

[The Links, Incorporated logo]

[Linked in Friendship, Connected in Service]
PASSPORTS

- Students are given replicas of official life-size passports to monitor and track their participation and progress.

- Participation stickers are given to document the attendance and involvement of the girls, their mothers and grandmothers.
“PASSPORT to STEMulating Healthy Lifestyles”
Documenting Attendance with Participation Stickers
Field Trips

A variety of field-based experiences focusing on:

• Nutrition
• Increasing self-esteem
• Eliminating health risks
• Reducing the incidence of chronic illnesses
• S.T.E.M.-related education and health careers
HHS Sassy Ladies’ Meetings at E-STEM Academy, preparing students for field trips and activities.
Sassy Ladies ' Kick-off Party & Orientation: An Introduction to Nutrition
Students, Mothers, Grandmothers & HHS Link Members: An Introduction to Nutrition
Nutrition: Healthy Plate Food Model
NUTRITION LECTURE
Food Groups, Body Mass, Portion Size and Physical Exercise
Nutrition: Interactive Learning Activity

- Trivia Questions

The audience was asked questions on the Nutrition lecture to measure understanding and comprehension.
Nutrition: Interactive Learning Activity

• **Trivia Questions**
  The audience was asked questions about the Nutrition lecture to measure understanding and comprehension.

• **Rewards and Incentives**
  • Students earned Gift Cards to Subway.
Nutrition: Interactive Learning Activity

• Trivia Questions
  The audience was asked questions about the Nutrition lecture to measure understanding and comprehension.

• Rewards and Incentives
  • Students earned Gift Cards to Subway.
  • Mothers and Grandmothers earned Gift Cards to Kroger and HEB Grocery Stores.
Self-Esteem

Cinderella: Musical at the Ensemble Theatre
Self-Esteem and International Health Trends
Haiti “Hospitale Adventisa” * Liberia * Ghana
Healthy Box Lunches in Pretty Packages
Self-Esteem: Tiaras for every Princess
Psychologist talked to the students about valuing themselves.
Self-Esteem: Tiaras for every Princess

Everyone received a gift of a Tiara and decorative mirror.
Self-Esteem: Tiaras for every Princess
Self-Esteem: Discussion of the learning objectives of the story of Cinderella with the Cast.
Students, Mothers, Grandmothers at Cinderella Play
Immunizations and STEM-related Health Careers
Field Trip to Museum of Health and Medical Science
Nutrition and Etiquette
White Glove Dinner at the Omni Hotel
Nutrition and Etiquette

Healthy Portion Sizes
Intergenerational Learning Experiences
Grandmother, Mother, Daughters at the Omni Hotel Dinner
PASSPORT to Healthy Lifestyles
Activities 2012-2013

November 16 – Sassy Ladies Kick-Off and Orientation - Nutrition Lecture

December 9 – Cinderella / International Christmas - @ The Ensemble Theatre – A Self-Esteem Activity

December 17 – Immunizations and STEM Health Careers @ E-STEM

January 11 – Meeting to Prep Students for Activities @ E-STEM

January 27 – Tour of the Health and Medical Museum, Nutrition and Etiquette Training @ the Omni Hotel White Glove Dinner

February 7 – Instructions for Behavioral Change Logs @ E-STEM

February 16 – Sassy Ladies Go Red @ E-STEM - A Hip-Hop Healthy Heart Affair
PASSPORT to Healthy Lifestyles Activities 2012-2013

March 1 – Prep for Baylor College of Medicine Science Lab @ E-STEM

March 9 – Saturday Morning Science Anatomy Laboratory “Dissecting a Heart” and Lectures @ Baylor College of Medicine

April 30 - Group Research Project Preparation and Behavior Modification Logs @ E-STEM

May 17 – Group Research Preparation in Technology Lab @ E-STEM

May 24 – Health Research Presentations on Chronic Diseases, Intergenerational and Team Rewards @ E-STEM

June 3 - Awards Ceremony – Certificates of Completion Presentation @ ESTEM
Behavior Modification

Observation Period:
January 15 thru April 30, 2013
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Students were given monthly Behavioral Change Record Logs to record the dates and frequency that they accomplished one of the target Behavioral outcomes.
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January 15 thru April 30, 2013

Students were given monthly Behavioral Change Record Logs to record the dates and frequency that they accomplished one of the target Behavioral outcomes.

If two members in their family were participating, then the number was recorded two (2) times; if three members of their family were participating in the target behavior change, then they recorded the number three (3) times, etc.
Behavioral Modification

Targets

Students selected one of the behaviors listed below to adopt during their Behavioral Modification journey towards a healthier lifestyle. They also had the option to choose a behavior that was not listed, and record it under “Other”.

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Behavioral Modification

Targets

Students selected one of the behaviors listed below to adopt during their Behavioral Modification journey towards a healthier lifestyle. They also had the option to choose a behavior that was not listed, and record it under “Other”.

- Reducing and/or eliminating salt from diet and cooking
- Reducing and/or eliminating sweets
Behavioral Modification Targets

Students selected one of the behaviors listed below to adopt during their Behavioral Modification journey towards a healthier lifestyle. They also had the option to choose a behavior that was not listed, and record it under “Other”.

• Reducing and/or eliminating salt from diet and cooking
• Reducing and/or eliminating sweets
• Hydration – 8 glasses of water per day
• Sleeping at least 8 hours per night
• Eliminating fried foods from diet
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• Reducing and/or eliminating salt from diet and cooking
• Reducing and/or eliminating sweets
• Hydration – 8 glasses of water per day
• Sleeping at least 8 hours per night
• Eliminating fried foods from diet
• Vegetables – 5 servings per day
• Fruits – 3 to 5 servings per day
• Exercise four times per week – 40 minutes (walking at least 1 mile, cycling, aerobics, etc.)
• Eliminating caffeine from diet
• Eliminating sodas from diet
• Other ___________________
STEM Professionals and Community Partnerships involved in teaching and modeling careers

- Link Wanda Mott, MD - Obstetrician / Gynecologist - HHS Chair
- Link Jarmese Morris, Health Care Administrator - HHS Co-Chair
- Link Carla Ortique, MD - Obstetrician / Gynecologist
- Dr. Baxter Montgomery - Cardiologist
- Dr. Mary Washington aka “Rapper MD” - Nephrologist
- Dr. Judi Shaw-Rice - Internal Medicine
- Link Linda Coleman Brown, PhD, Sociologist - HHS Member
- Link Janice Beal Geyen, PhD, Psychologist - HHS Member
- Link Evelyn Thornton, PhD, Mathematician - HHS Member
- Link Patricia Williams, RPh, Pharmacist - HHS Member
S.T.E.M. Professionals and Community Partnerships
involved in teaching and modeling careers

- Link Sandra Alridge, Mechanical Engineer
- Link Mamie Ewing, Social Worker - HHS Member
- Michael Dean, Graduate Student in Nutrition, Texas Southern University
- Anthony Bullock, Information Technology Instructor, E-STEM Academy
- Link Monica Fontenot-Poindexter, Entrepreneur & City Planner – HHS Member
- Link Roxanne Chargois, Entrepreneur - HHS Member
Incentives & Awards

Students receive rewards / awards based on Passport Stickers earned for:

• The students’ attendance and participation
• The participation of their mothers and grandmother
• Post assessments on field based experiences
• Completion of health related research project
• Completion of Behavior Modification logs to track and trend positive lifestyle adaptations (see slide)
• Students who complete the program receive Certificates of Completion
Rewards, Recognition and Incentives for Participation in Passport events
Intergenerational Learning Experiences
Student, Mother and Grandmother at Omni Hotel Dinner
Sassy Ladies Go Red:
A Hip Hop Healthy Heart Awareness Affair
Dr. Baxter Montgomery, Cardiologist
Lecturing on Heart Health
Dr. Mary Washington, Nephrologist aka “Rapper MD” Teaching through Hip Hop
Dr. Judi Shaw Rice, Internist
Lecturing on S.T.E.M. Education and Health
Sassy Ladies Go Red:
Intergenerational Grandmother, Daughter & Granddaughters
Research Projects

- All Sassy Ladies were required to complete a Health Research Project.
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• The young ladies were assigned to seven (7) groups to conduct their research and presentations.
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• The Research Projects were required to include technology.
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• The young ladies were assigned to seven (7) groups to conduct their research and presentations.
• The Research Projects were required to include technology.
• The Research Projects were presented before a panel of judges.
Research Topics

The research topics were selected based on the program’s health initiatives focusing on chronic diseases most prevalent in African American and Hispanic communities.

1. Obesity
Research Topics

The research topics were selected based on the program’s health initiatives focusing on chronic diseases most prevalent in African American and Hispanic communities.

1. **Obesity**
2. **Hypertension**
Research Topics

The research topics were selected based on the program’s health initiatives focusing on chronic diseases most prevalent in African American and Hispanic communities.

1. **Obesity**
2. **Hypertension**
3. **Diabetes**
Research Topics

The research topics were selected based on the program’s health initiatives focusing on chronic diseases most prevalent in African American and Hispanic communities.

1. Obesity
2. Hypertension
3. Diabetes
4. Heart Disease
Research Topics

The research topics were selected based on the program’s health initiatives focusing on chronic diseases most prevalent in African American and Hispanic communities.

1. Obesity
2. Hypertension
3. Diabetes
4. Heart Disease
5. Stroke
Research Topics

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1. **Obesity**
2. Hypertension
3. Diabetes
4. Heart Disease
5. Stroke
6. Renal Failure
Research Topics

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1. Obesity
2. Hypertension
3. Diabetes
4. Heart Disease
5. Stroke
6. Renal Failure
7. Depression
Research Components

Students were required to research the following information relating to each of the assigned topics.

1. Definition of the disease.
2. Causes of the disease.
3. Symptoms of the disease.
4. Prevalence, who is affected by the disease?
5. How can the disease be prevented?
Outcomes

The outcomes were derived from the pre-assessment data, field tests, and post assessments.

1. Participants were more aware of self and behavioral patterns that support a healthy lifestyle.

2. Participants were able to implement simple behavioral patterns in their immediate families that support a healthy lifestyle (i.e., removing salt from their diet, drinking more water, exercising, etc.)

3. Participants were able to discuss what makes up a balanced diet.
Outcomes

4. Participants were able to discuss the importance of immunizations within the United States and the immunization practices of other countries.

5. Participants were able to identify at least three major health issues / concerns and understand prevention, prevalence and treatment of each.
End of Year Participation Rewards

• Each Sassy Lady earned a Reward for completing the 2012-2013 PASSPORT to Healthy Lifestyles Program.
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• **5 Kindle Tablets** were awarded to the five (5) young ladies who tied for 1st place based on participation.
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• All other young ladies received Gift Cards to Forever 21 retail store.
Sassy Ladies’ Awards