Service-Learning Approaches: Educating Future Health Care Professionals in the Community Daniel S. Blumenthal, MD, MPH Morehouse School of Medicine Atlanta GA

What is service-learning?

Service-learning combines service objectives with learning objectives with the intent that the activity change both the recipient and the provider of the service. This is accomplished by combining service tasks with structured opportunities that link the task to self-reflection, self-discovery, and the acquisition and comprehension of values, skills, and knowledge content.

Campus Compact Survey 2000

- 712,000 students had participated in some form of service
- 12.2 percent of faculty were offering service-learning courses
- 6,272 service-learning courses were taught
- 9 percent required service-learning courses for graduation

Essential Elements

- Curricular connections
- Student Voice
- Reflection
- Community partnerships
- Authentic community needs
- Assessment

Morehouse School of Medicine

Community Health Course

Goals

- Prepare students to work with diverse communities
- Assist students to understand the impact of public health on medical practice and the health of the community
- Provide students with the skills to assess the health problems of the community
- Prepare students to work in teams
- Provide students with the skills to implement a community health intervention

Selected learning objectives – Students will be able to:

- Use basic community assessment tools
- Access public health information and resources
- Discuss barriers in access to care of assigned community
- Recommend public policy measures to address the health problems of assigned community

Selected learning objectives – Students will be able to:

- Support team activities to achieve a common goal
- Develop, implement, and evaluate a community health promotion intervention

Course Format

- Small groups: 8-10 students
- Each group assigned to a community (community organization, agency, school, housing project, etc)
- 2 faculty supervisors
- Community liaison

First Semester: Community Health Needs Assessment

- Literature review
- "Windshield survey"
- Key informant interviews
- Focus groups
- Secondary data (census, health dept, etc)
- Surveys

Mock Legislative Hearing

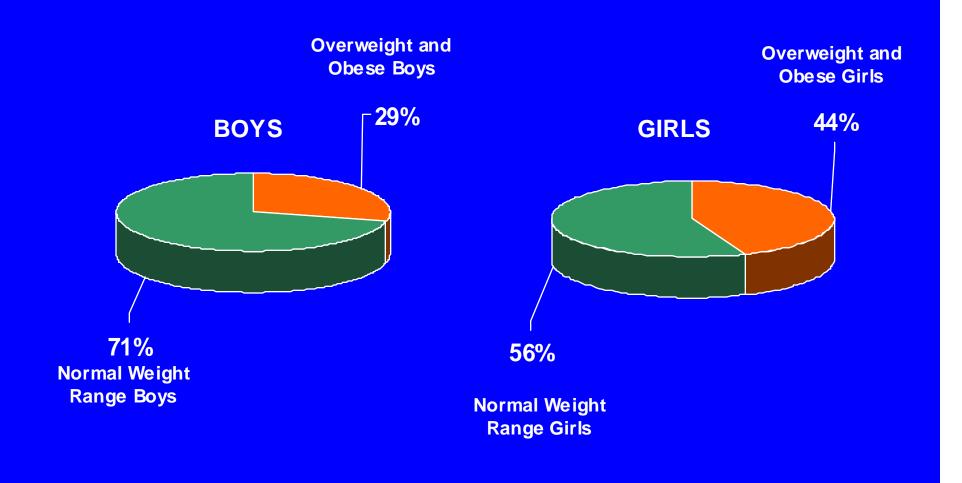


Second Semester: Community Health Promotion Project

- Respond to one or more of the problems identified first semester
- Write goals and objectives
- Develop evaluation plan
- Implement project



BMI Data for 4th and 5th Graders



Tull Water Elementary School Focus Group Concerns

- Lack of grocery stores in their community.
- The rise in the number of snack and ice cream trucks that frequent their housing projects and neighborhoods.
- Differentiating between healthy and unhealthy foods.

Goals & Objectives

- Increase awareness among the children of the importance of a healthy diet
- Make children aware of the Food Pyramid
- Make children more aware of the importance of exercise

Methods

- Intervention
 - Series of educational workshops based on the 4 Basic Food Groups
 - Fruits & Vegetable, Cereals/grains, Meats & protein, Dairy
 - At the same time emphasizing the importance of exercise

Process Evaluation of Interventions

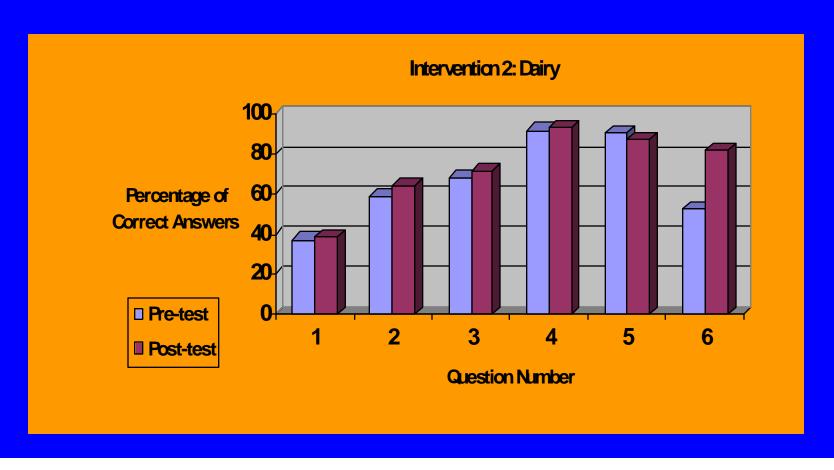
- Pre/ Post Test Administration
 - Questions aimed to assess the knowledge of the food groups, good nutrition practices, and proper physical activity
 - During each intervention a pre-test was given to the 4th and 5th grade students before the workshop
 - After each intervention, a post-test was given to determine the effectiveness of the presented material







Pre/Post-test Sample Data



Jonesboro North and South

2002-03

Objectives

- To provide convenient access to fruits and vegetables (process)
- To increase knowledge of nutrition among residents of Jonesboro North & South housing projects. (outcome)
- To increase consumption of fruits and vegetables in Jonesboro North and South. (outcome)

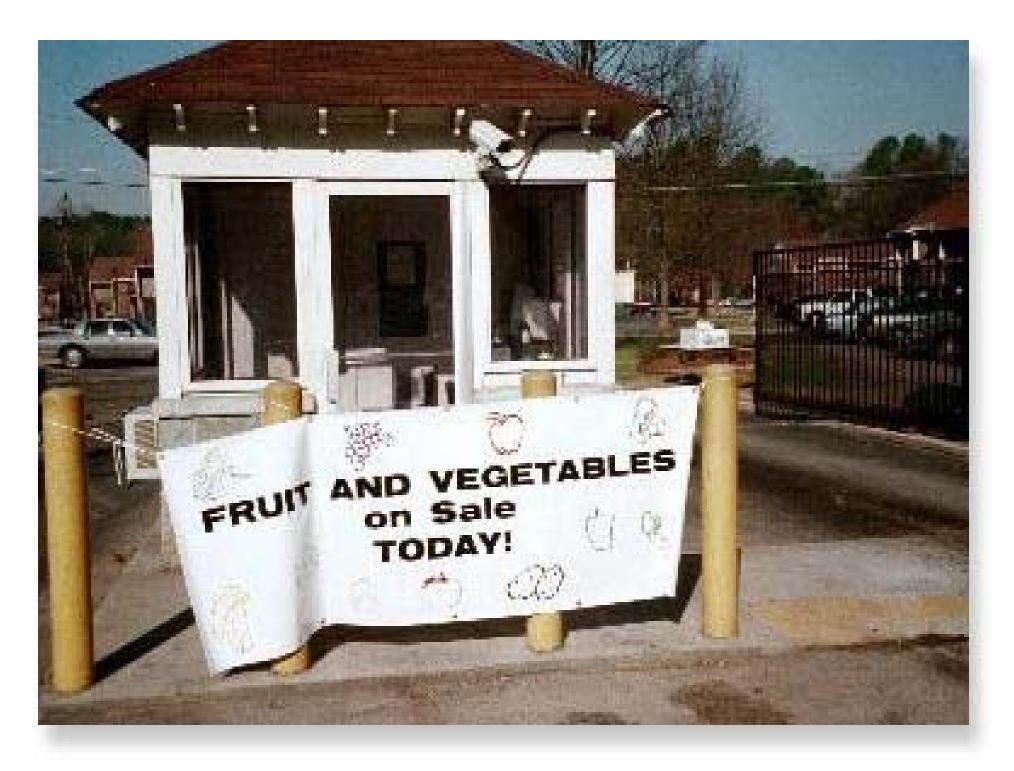
The Intervention

• Produce was obtained from a vendor at the State Farmers Market in Forest Park, GA at wholesale costs.

• We sold produce on Wednesday and Saturday mornings at the two Jonesboro apartment complexes.

Nutrition Education and Quiz

- Administered to the customers after they shopped to find out what products the members of the community wanted to be sold.
- A nutritional quiz was also included in the survey to test the initial awareness, as well as the growing knowledge, of our customers on eating fruits and vegetables.



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eat your vegetables!

what nagging mothers everywhere have always known

Everybody should eat at least 5 fruits and vegetables each day

Kids and adults alike are suffering from obesity. We can change this! Eat at least five servings of fruits and vegetables every day for better health. Fruits and vegetables are <u>low in fat</u>, <u>cholesterol free</u>, <u>low in calories</u>, <u>loaded with vitamins and minerals</u>, and <u>great sources of fiber!</u>

- **Iron** prevents us from feeling tired and apathetic. Too little is known as iron deficiency anemia. Good sources include spinach, greens, liver, fortified cereals, dried fruit, dried beans, and red meat.
- Vitamin C helps wounds to heal and helps our bodies use the iron found in plant foods. Good sources include oranges, bell peppers, and broccoli.
- **Dietary fiber** is the part of plants that our bodies cannot break down or digest. Fiber may prevent certain cancers from starting and may help lower our blood cholesterol. *Good sources include apples, pears, potatoes (with skin), green peas, broccoli, whole grain cereal, dried beans.*

What's a serving of fruits and vegetables?

- 1 medium piece of fruit
- 1 cup leafy vegetables

• 1/2 cup fruit

- ½ cup raw vegetables
- ½ cup canned fruit
- 3/4 cup 100% juice

APPENDIX A: Nutrition Survey			
What fruits and vegetables do you want u Oranges Grapes Apples Pears Grapefruit Other	o Mustard greens o Collard greens o Green beans o Broccoli o Cabbage o Other		
Where do you normally buy fruits and ve	getables?		
o Shoppers Market ("Korean Store")	o Kroger o Other		
How did you hear about us?			
-	25		
Do you have children? No. of children ()-3 y.o 6-11y.o over 11y.o		
About how many servings of fruits and v	egetables do you eat per day?		
How many servings of fruits & vegetable	es do you think you <u>should</u> eat per day?		
What foods are high in (check 2 in each of	category):		
Vitamin C? Oranges Broccoli Peanuts Iron? Spinach			
Potato es			
Turnip greens			
Fiber? Cheese Apples Beans			

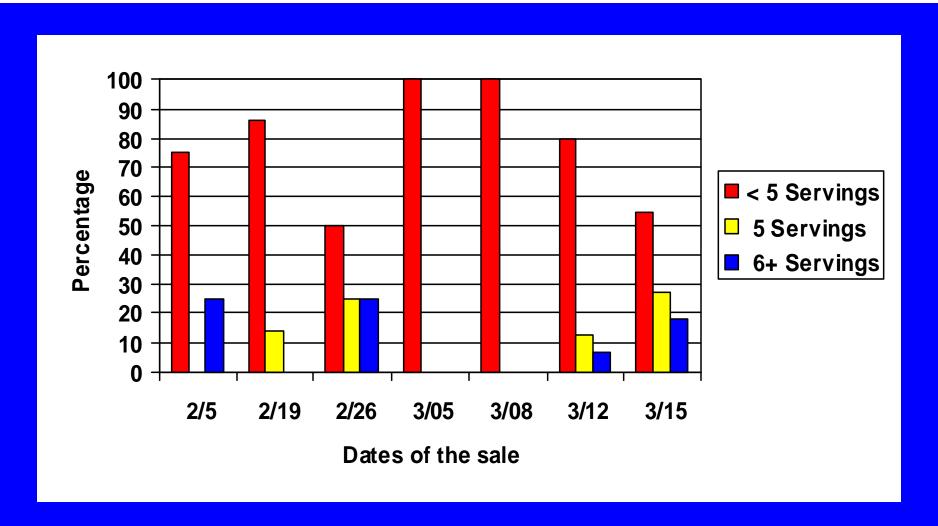


Figure A. Percentage of respondents who believed that optimal fruit and vegetable consumption is less than five, five, or six or more servings per day, by date of sale

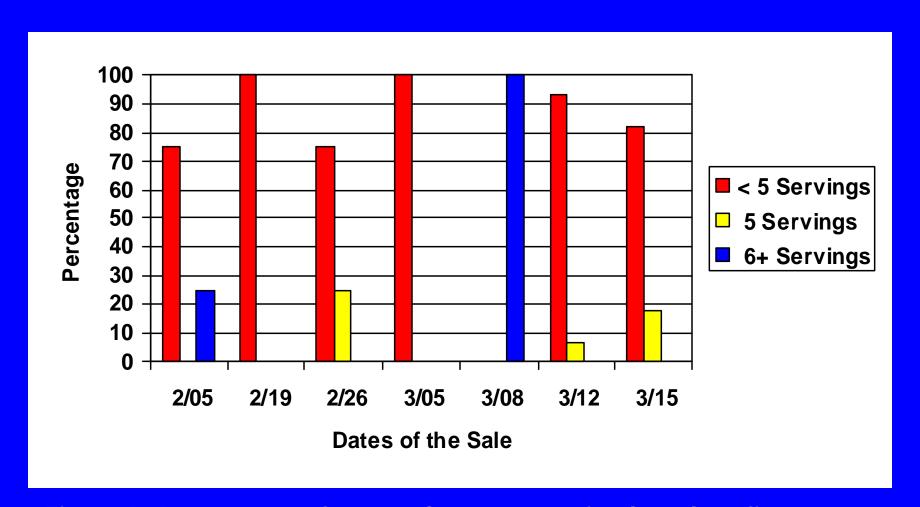


Figure B. Percentage of respondents consuming less than five, five, or six or more servings of fruits and vegetables per day, by date of sale

Evaluation of Process Objectives

- We were able to increase access to fruits and vegetables by Jonesboro residents by operating a fruit a vegetable stand for 8 weeks.
- Our stand provided a relatively convenient way to access produce and it surpassed our 8 week expectation and ran for 11 weeks on Wednesdays and Saturdays.

Evaluation of Outcome Objectives

 We may have modestly increased nutrition knowledge among shoppers.

• We were not able to demonstrate increased fruit and vegetable consumption.

Types of Communities Assessed

by Year

	School	Head start	Housing Project	Whole Commu	TOTAL
Year			J	nity	
1998-1999	-	1	2	1	4
1999-2000	2	-	3	2	7
2000-2001	4	-	1	2	7
2001-2002	2	1	-	-	3
2002-2003	2	-	2	1	5
2003-2004	2	1	-	1	4
Unknown	-	1	1	-	2
Total	12	4	9	7	32

Major Health Problems

	Lack of Community Development	Obesity and Nutrition	Teen pregncy, STD'S, HIV	Violence, Substnce Abuse	Other: Asthma HBP arthritis	Total
Children	4	5	-	7	-	16
Adoles- cents	-	-	1	-	1	2
Adults	1	-	-	-	1	2
Mixed	7	-	-	5	-	12
Total	12	5	1	12	2	32

Intervention Project Focus

Proble m	Head start	Housing Project	Whole Comunuty	School	Total
Nutrition and Obesity	1	2	-	-	3
Asthma	-	-	-	1	1
Violence or Subst abuse	-	3	4	2	9
Environment	-	3	3	-	6
Sexuality		-	1	1	2
Heart Dis & Diabetes	1	-	-	-	1
Immunization	-	-	1	-	1
Educational	3	2	3	1	9
Total	5	10	12	5	32

Lessons Learned

- It's feasible
- It's faculty-intensive
- Similarity of experience among groups is important
- The key to student satisfaction is faculty who are able to teach in the community setting