The University of Maryland Extension (UME) was established in 1914 through the Smith-Lever Act. UME is a part of a larger national educational network known as Cooperative Extension delivered through the nation’s seventy-two land grant universities. In Maryland, UME operates through the University of Maryland at College Park, and the University of Maryland Eastern Shore. UME has field offices in all twenty-three Maryland counties and Baltimore City.

UME faculty and staff are professionals engaged in the delivery of non-formal educational programs that address issues of concern at the local and state level: Local Food Agriculture Systems, Environment and Natural Resources, Healthy Living, Youth Development and Building Resilient Communities.

Programming is made possible through successful partnerships between local, state and federal government. Programming is also supported by grants, donations and a strong cadre of UME trained volunteers.

We are proud to have celebrated our 100th anniversary on a national and local level. The Cecil County office has been providing services to farming families since 1914. You will see in this report, how UME’s outreach efforts seek to provide educational support and solutions to improve the lives of Cecil County residents.
**Master Gardener Program**

Doris Behnke is responsible for the Master Gardener (MG) Program and its volunteers. Master Gardeners are trained volunteers who work within the community to teach safe, effective and sustainable horticultural practices that build healthy gardens, landscapes, and communities.

Doris provides on-going training for the Master Gardener volunteers and together they play an important role in organizing and administering the Master Gardener program through educational opportunities to youth and adults throughout the county.

Cecil County’s Master Gardeners recently partnered with Elk Neck State Park to help plant native trees and shrubs within the camping sites to improve the biodiversity for area wildlife. They also partnered with the park at one of their summer camps, and one Master Gardener has become a park naturalist to help educate campers about the importance of the park and its natural environment.

**Stakeholders/Partners**

- Cecil County Public Schools
- Cecil County Farm Bureau
- Cecil County Senior Services Program
- Cecil County Department of Public Works
- Cecil College Horticulture Club
- Cecil County Economic Development Office
- North Bay Environmental Center
- University of Delaware Extension
- Cecil County School of Technology
- Elk Neck State Park

**Cross Collaborations**

- 4-H, MG in Schools- Green School (CCPS)
- MG, Cecil College
- MG, Forestry Board

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**VOLUNTEERS GIVE BACK IN 2017**

**MASTER GARDENERS**

- 30 volunteers
- 888.95 hours of service to the community
- MG volunteer services valued at $21,459

**4-H VOLUNTEERS**

- 301 Adults
  - 9,252 hours
  - $223,343
- 40 Youth
  - 3,500 hours
  - $25,375
4-H volunteer services valued at $248,718

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**TOTAL VALUE OF SERVICE HOURS BY UME VOLUNTEERS**

$270,177
4-H'ers are leading a Revolution of Responsibility - a movement for positive change in every community in America including right here in Cecil County, MD! 4-H youth are a living, breathing, culture-changing revolution for doing the right thing, breaking through obstacles, and pushing our country forward by making a measurable difference here in Cecil County.

3,143 youth served through Cecil County 4-H Programs in 2017

475 youth enrolled in 22 traditional and special interest clubs
140 youth participated in 4-H sponsored overnight camping
2,528 youth served via outreach programs at 38 school/community sites

55 Cecil County Public Schools Second Grade Teachers supported through three separate STEM Professional Development Trainings

Grants Secured for Youth Program Funding - $22,595

AGsploration - The Science of Agriculture Education—$31,500
OJJDP - S.T.E.M. Education & Leadership Development—$42,850

Total Value of Grants Sought in 2017 —$96,945

“My daughter and I have been part of the Cecil County 4-H program for just three years, she as a 4-H member, and I as an adult volunteer. In this short time we have had many positive experiences at the County and State level. We quickly learned that 4-H is more than winning ribbons at the Fair. It’s about the growth and development of young people into productive, responsible adults who give back to their clubs and communities. Through 4-H activities, members develop important life skills including self-sufficiency, accountability, and fiscal responsibility. While it’s true, winning ribbons at the Fair is fun, 4-H and its programs provide invaluable opportunities for our young people to develop and thrive. 4-H is how true leaders are grown.”

- Cecil County 4-H Volunteer

“Best Professional Development I have attended in 23 years!”

- CCPS Second Grade Teacher
Agriculture

Doris provides support to producers throughout the year through educational programming and 1:1 consultations. In January of each year, Doris hosts an Agronomy Day that is critical to our agricultural community since this is where the farmers/producers receive their recertification credits to meet their certification regulatory requirements. This day of recertification brings together University of Maryland Extension, Maryland Department of Agriculture, NRCS, FSA, and Soil Conservation experts with our farming community to educate them about updates, changes, and research findings that might impact their businesses.

Doris is the President of the Maryland Association of County Agricultural Agents (MACAA) State Executive Committee. Doris received a National Finalist Achievement Award at the National Association of County Agricultural Agent’s (NACAA) Annual Conference this year in Salt Lake City, Utah.

Doris is active with the Cecil County Farm Bureau program. She attended the State Farm Bureau Annual Conference in Ocean City as an alternate voting delegate this past year.

Doris is an active member of the AG Showcase Committee. The AG Showcase Day at the Cecil County Fair is designed to provide networking for our farmers, local businesses, local agencies and legislators.

At the 2018 Winter Agronomy Meeting, there were 77 attendees; 32 private pesticide applicator recertifications; and 33 nutrient management re-certifications. University of Maryland’s Dr. Sara Via presented on Soil Health and UME’s Ben Beale presented on Marestail Management/Herbicide Resistance.

For the second year in a row, Doris attended the Mid-Atlantic Crop Management School in Ocean City, Maryland for professional development growth and education in topics such as: Insect Pest Management-Updates for Sweet Corn/Vegetable Crops, and Phosphorus Removal Structures-Fighting Small Battles to Win the War.

Nutrient Management

Nearly all Maryland farmers are required to follow a certified Nutrient Management Plan. Cecil County Extension’s Nutrient Management Advisor assists our county’s farmers in complying with this requirement by providing them with certified plans. The University of Maryland Extension's Agricultural Nutrient Management Program, which is a component of the University of Maryland's College of Agriculture and Natural Resources, focuses on reducing the pollution of the Chesapeake Bay by plant nutrients from cropland.

Jenna Talbot wrote 98 nutrient management plans covering 6364 acres of land for 54 farmers in the county. These plans are written for the farmer at no cost, resulting in a $31,756.36 savings for farmers who utilized UME’s nutrient management program in CY2017.
Relevance

For more than three years, Cecil County was without a Family and Consumer Science (FCS) Extension Educator. FCS Educators play an essential role in planning, implementing and evaluating community-based education programs that meet the needs of priority audiences identified through local needs assessments. In March 2017, I began my role as FCS Educator in the county, however because this position was vacant for several years, key community partnerships and sites interested in hosting education programs were lost, providing me with the challenge of re-establishing and forming new partnerships to host programs and identifying the programmatic needs in the county.

Response

Using newly developed outreach resources, phone calls and face-to-face meetings, I contacted 16 organizations and re-established and/or developed new partnerships with 12 community groups that included senior centers, housing authorities, health departments, libraries and hospitals. Twelve single session programs, one multi-session program (4 sessions) and four interactive health education displays reached 290 people in Cecil County in the last nine months of 2017. FCS Extension programs in place that focus on healthy home environments, health literacy and healthy eating and food preparation were presented at these sites. As a Registered Dietitian and content expert in chronic disease prevention and management programs, two curricula entitled, Using Food Labels to Manage Diabetes and The Glycemic Index: A Tool for Diabetes were developed to address the specific needs of audiences in the county.

A research project to conduct an Upper Shore Community Needs Assessment was submitted and approved by the University of Maryland IRB in late October 2017. In 2018, 30 people from Cecil County will be recruited to participate in three focus groups with a maximum of 10 people per group. Results from the needs assessment will identify and drive programmatic needs for the county.

Results

As a result of my outreach efforts, a foundation of partnerships are in place and several healthy living programs were implemented in communities in Cecil County. The community needs assessment will provide further insight in identifying programmatic needs and partnerships that are necessary in presenting education programs in the county.

Community agencies and organizations recognize the important role FCS educators play in the county. I was invited and currently serve on the Cecil County Department of Health - Healthy Lifestyle Task Force for Chronic Disease Management, the Drug-Free Cecil Coalition and the Resident Opportunity Self-Sufficiency (ROSS) Grant Committee for the Elkton Housing Authority. Participation on these task forces and coalitions will provide networking opportunities that will further increase my presence in the county.
The Expanded Food and Nutrition Education Program (EFNEP) is a nutrition education program that empowers limited-resources audiences to learn and develop the skills to make behavior changes that will lead to improved diet, health, and well-being.

**what do we teach?**

EFNEP educators teach youth to eat nutritious foods, participate in physical activity, and make healthy snack and drink choices through fun and interactive lessons.

**nutrition and physical activity outcomes**

- **Youth**
  - 76% improved diet quality
  - 38% improved food safety practices
  - 20% improved food resource management
  - 33% increased physical activity level

**Improving Eating Habits**

- 54% Increased Vegetable Intake
- 30% Increased Fruit Intake
- 30% Improved Healthy Snacks Intake

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**Demographics**

18.8% of children in Cecil County are overweight and 21% are obese.*

155 youth participants

51% boys

49% girls

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*Dept. of Health & Mental Hygiene Cecil County (2008)

The University of Maryland is an Equal Opportunity Employer with Equal Access Programs.
The Expanded Food and Nutrition Education Program (EFNEP) is a nutrition education program that empowers limited-resource audiences to learn and develop the skills to make behavior changes that will lead to improved diet, health and well-being.

### Adults

- 96% improved nutrition practices.
- 92% improved food resource management.
- 76% improved food safety practices.
- 62% increased physical activity level.

### Nutrition and Physical Activity Outcomes

- **75 Adults reached**

### Improving Eating Habits

- 58% of EFNEP adult participants decreased their intake of solid fats and added sugars.
- 67% increased vegetable intake.
- 64% increased fruit intake.
- 64% increased dairy intake.
- 59% increased protein intake.
- 57% increased whole grain intake.

### EFNEP Participants run out of food less often after completing nutrition series

- 43% started planning meals in advance.
- 48% started using grocery lists when shopping.
- 68% run out of food less often.

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**UME EFNEP Cecil County Contact info:**

**Supervisor**

Ms. Denise Benoit-Moctezuma
Office: 301-779-2808 X 700
Email: dbenoitm@umd.edu

**EFNEP Program Assistant**

Ms. Tammy Pryor
Email: Imanfull@umd.edu
Office: 410-996-5280

**Address**

University of Maryland Extension,
200 Chesapeake Blvd
Elkton, MD 21921

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Maryland’s Food Supplement Nutrition Education (FSNE) program implements nutrition education programs to help low income households and those eligible for Supplement Nutrition Education Program (SNAP). To reach these households, FSNE works with a variety of community agencies including schools, out-of-school sites, farmers’ markets, and food assistance. FSNE uses diverse curricula to empower individuals and families to make healthier food choices, buy healthy food on a budget, develop food preparation skills, and increase physical activity.

FSNE program outcomes show positive results. Adult learners are developing better food shopping skills and eating more fruits and vegetables. FSNE youth programming helps participants become more willing to try new fruits and vegetables and increase their consumption of healthy foods.

In 2017, FSNE collaborated with North East Farmer’s Market and Perryville Farmer’s Market to reach a total of 154 participants. These participants tasted farm fresh produce and were given resources to create healthy recipes using local ingredients.

In 2018, FSNE’s programming will continue to expand within Cecil County. Project Leader and Nutrition Educator, Emily Vooris, will partner with qualified schools, head start centers, and food assistance sites to provide more nutrition education opportunities.

Dean Beyrouty’s 5 Strategic Initiatives for the College of Agriculture & Natural Resources

- Advance innovative, profitable, and sustainable agricultural production systems
- Ensure a clean and healthy Chesapeake Bay
- Establish a healthy food system and ensure global food and nutritional security
- Improve human, animal, and environmental health
- Optimize urban environments through design, green technology, and community engagement

***The Three Legs of the AGNR Mission are Academics, Research, and Extension***
Sea Grant Extension and Cecil Watershed Stewards Academy

Mr. Eric Buehl, Agent Associate

Now in its third year, the goal of the Cecil County Watershed Stewards Academy (WSA) is to develop and support a well-trained diverse group of volunteers or stewards who are conversant in stormwater issues to educate communities and recommend, implement, maintain, and promote restoration projects focused on stormwater management and improving local water quality. Mr. Buehl, as program co-coordinator, assisted Cecil County in starting its third Watershed Stewards Academy which has 11 program participants.

During the course of their training, the stewards learn about the impacts of urban stormwater runoff on local water quality. They learn how to perform site assessments, how to select best management practices, and how to engage community involvement. The program is run through a partnership between the University of Maryland Sea Grant Extension and the Cecil County Development Services Division.

In CY2017, Mr Buehl also:

- Provided grant and technical assistance to seven agencies, watershed groups, educational facilities, and faith-based organizations and to three individual landowners.
- Participated in four events reaching 99 individuals which included one educational presentation and three educational event displays.
- Provided grant assistance to a regional watershed group totaling $75,000 for a water quality improvement project. The proposal was not funded.