The Effectiveness of Both Prediabetes and Diabetes Interventions in Two Rural Communities in Maryland

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Mission and Vision of MHHD

The Office of Minority Health and Health Disparities' mission is to address the social determinants of health and eliminate health disparities by leveraging the Department’s resources, providing health equity consultation, impacting external communications, guiding policy decisions and influencing strategic direction on behalf of the Secretary of Health.

The Office's vision is to achieve health equity where all individuals and communities have the opportunity and access to achieve and maintain good health.
Geographic Distribution of Diabetes in Maryland

The prevalence of diabetes is as shown on adjacent map. It is higher than the State average of in several rural Maryland counties such as Dorchester, Allegany, Garrett, Washington, Somerset, and Caroline as well as counties with large minority populations (Baltimore City, Prince Georges County).

https://phpa.health.maryland.gov/ccdpc/Pages/ccdpc_home.aspx
Some reasons for the high prevalence of diabetes in rural areas

1. Lack of access to services which both prevent or manage their diabetes.

2. Rural residents, as well as the urban poor, experience barriers to adequate physical activity and healthy eating.

3. Additional challenges revolve around access to health care, including shortages of physicians and providers located in rural areas. Workforce shortages in rural areas may decrease provider referral to National DPP, Diabetes Self-Management Education and Support (DSMES) programs, and nutrition programs, as well as the availability of these programs.

4. Other challenges include limited access to transportation to travel to appointments with primary care or specialty care providers.

https://phpa.health.maryland.gov/ccdpc/Pages/ccdpc_home.aspx
Minority Outreach and Technical Assistance (MOTA) Grantees in Rural Maryland

All these organizations conduct activities related to obesity, pre-diabetes and diabetes except for Asian American Center of Frederick (not listed in diagram).
## Minority Outreach Coalition (MOC)

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Outcomes</th>
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| Conducted a monthly pre-diabetes/diabetes cohort X 11 sessions at a senior living center in Lexington Park, St. Mary’s County. | • 20 participants recruited  
• 16 (80%) were females and 4 (20%) were males  
• 6 (30%) were aged 45-64 years and 14 (70%) were aged 65 and over.  
• All were minorities; African Americans.  
• All completers (attended at least 6 of 11 sessions) and lost weight except for one.  
• Weight loss ranged from 4 to 21 lbs. 67% of the completers lost > 5% of their body weight (range from 5.1% - 12.1%).  
• In addition for individuals who had a random blood glucose done at a 6 month interval, an improvement in blood glucose reading was observed. |
## MOC Outcomes (contd.)

<table>
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<tr>
<th>Intervention</th>
<th>Outcomes</th>
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<tr>
<td>Conducted monthly workshops on diabetes across the county</td>
<td>• Increased awareness about pre-diabetes/diabetes</td>
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<td>• Administered the American Diabetes Association Pre-diabetes screening test to all participants and</td>
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<td>• Navigated as needed</td>
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<td>Other activities</td>
<td>• 4 events including health fairs and a women’s conference</td>
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<td>• Reached 367 individuals with information on diabetes</td>
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Eastern Shore Wellness Solutions (ESWS)

Stanford Diabetes Self Management Program (DSMP)

- Conducted 6 cohorts (weekly x 6 weeks/cohort)
- Conducted follow up at 30, 60 and 90 days post intervention
- 52 participants recruited
- 33 (63%) were females, 19 (37%) were males
- 10 (19%) were aged 25-44 years, 13 (25%) were aged 45-64 and 29 (56%) were aged 65 and above.
ESWS (Other DSMP related outcomes)

40 (77%) were African Americans, 11 (21%) were Non-Hispanic Whites and 1 (2%) was Hispanic.

- All participants attended >= 4 of 6 sessions and >= 2 of the 3 follow up sessions (except the last cohort that attended >= 1 of the 2 follow up sessions).

- Of the 52 participants recruited,
  * 29 had their weight documented at the end of the 6 week DSM program,
  * all 29 showed sustained weight loss
  * with additional weight loss of 68 pounds among the 29 participants.

- 14 (27%) individuals lost > 5% (5% to 7.2%) weight at the end of the 90 days
- An additional 30 (58%) of individuals lost 3-5% body weight by 90 days

- Improvement in blood sugar was shown by improved HBA1c readings in all participants ranging from a 0.2 to 6.4 percentage point reduction in HBA1c
Individuals with elevated blood pressure were referred to necessary care. Grantee also conducted 15 community outreaches reaching 623 individuals.
Lessons

It does not matter that one resides in a rural community in Maryland. There are interventions that can either be used wholly or made applicable for your community.

Source out those resources or ask for help.

Diabetes is a disease that can either be prevented or managed well to prevent complications.
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St. Mary’s County’s Minority Outreach and Technical Assistance (MOTA) Representative under the auspices of Maryland Office of Minority Health and Health Disparities

Affiliate member of The Healthy St. Marys Partnership Coalition
The Minority Outreach Coalition (MOC) is a 501C3 non-profit organization, under an Internal Revenue code and as a public charity, sections 509(a)(1) and 170 (b)(1)(A)(vi).

The Minority Outreach Coalition (MOC) was started in 1999 by a group of concerned citizens as a community involvement association. All MOC members are volunteers, from local social, faith-based or fraternal organizations, who are concerned about the communities in which they reside.

What is the MOC

The MOC promotes health, education, logistic and the general performance for minorities in our community to remove or address disparities.

Our Mission

Maryland Office of Minority Health and Health Disparities Representative
What is the MOTA

The purpose of the Minority Outreach and Technical Assistance (MOTA) program is to improve the health outcomes of racial and ethnic minority communities through community engagement, partnerships, outreach and technical assistance.

MOTA programs are required to focus on the following key areas: Pregnancy/Birth outcomes, Cardiovascular disease, Diabetes, Obesity, Cancer, Asthma.
The MOC as a partner with the Maryland Department of Health (MDH) and under the Office of Minority Health and Health Disparities (MHHD), agreed to be the MOTA representative for St. Mary’s County. We assist individuals/organizations as we advocate and encourage them to communicate health and business issues and concerns which improve disparities.

We work to better our community by providing an active link between St. Mary’s Health Department, Med-Star St. Marys Hospital and local professional services that can actively function as a technical or advisory resource for the information or programs necessary to resolve community issues in the field of Health, Education, Logistics and Group Performance.

The MOC provides:

* Training and Technical Assistance Programs
* Workshop ideas and methods for sustainability
* Health Related Program facts and information
* Educational information necessary for health, and life-style changes
Our FY 19 and FY 20 goals is to utilizing the **CDC’s Road to Health curriculum** to provide 12-month prediabetes and diabetes awareness education sessions and workshops to racial and ethnic minorities living with pre-diabetes or diabetes in St. Mary’s County.

Our organization collaborates with the St. Mary’s Health Department (SMHD), MedStar St. Marys Health Connection, Healthy St. Mary’s Partnership (HSMP) and other community and faith based organizations to provide professional services such as (BMI reading, A1C testing, monthly weight monitoring with education awareness through multiple diabetes workshops, health fairs, community events such as Black History Month, Juneteenth, and Women Wellness to deliver outreach and education on prediabetes and diabetes prevention management strategies.

MOC is mobile and capable to setup outreach in both indoor and outdoor venues. If necessary, referrals are and can made to our outreach partners to elevate your needs or community concerns.
What You Can Do

We invite persons of good standing and those with a genuine concern for the community of St. Mary’s county to volunteer. The donations of your time will benefit our programs. Programs services target the following population:

- Native Americans
- African Americans
- Hispanics or Latino Americans
- Asian Americans
- Women
- Youth

Although no one are turned away.
Let the MOC serve you

The MOC believes everyone can be a voice in the community and that everyone can contribute to advocating for a better community and actively address disparities.

Learn about disparities that affect our community by scheduling a meeting with us for your group or representative. We welcome the opportunity to meet with you.

Give us the opportunity to meet with your group or send your representative to meet with us and learn what disparities may be affecting your community interest and how we can assist your efforts to better your community outreach goals.

Our action plans may contain just what you have been looking for to move ahead or lift the conditions which affect your situation.

The MOC meets monthly to evaluate and address community issues.
Dorchester MOTA: Improving Health Outcomes through Diabetes Education, Training and Follow-up

Ashyrra C. Dotson, President & CEO
Eastern Shore Wellness Solutions, Inc.
Objectives:

- To define the rural community, its demographics and the Health Needs

- To address the benefits of Minority Outreach and Technical Assistance (MOTA) on the Diabetes Education process.

- To review the challenges surrounding successful inclusion of CHW’s rural community Health Programs
Dorchester County is extremely rural with population demographics reflecting 27.6% African American, 3.4% Latino, 1.6% Asian/Pacific Islanders, .9% Native American and 66.5% European; with social determinants of health that include:

- A Limited Transportation Network
- Food Insecurity
- Limited PCP Access
- Unemployment
The Need in our Community

Eastern Shore Wellness Solutions, Inc
WHAT DID WE DO?
MOTA - Community Health Workers

- Trained, non-clinical, trusted community members to focus on connecting our community to the DPP (Diabetes Prevention Program) and Diabetes Self-management with 30, 60 and 90 day follow-up sessions.
MOTA – Diabetes Self-Management with Follow-ups

Provider Referral or Recruitment → Enrollment → 6 Week Evidence Based Training (Living Well Institute)

Completion Ceremony → Follow-up Activities at 30, 60 and 90 days
CHALLENGES

- Connecting to Hospital Discharge referrals for high risk individuals diagnosed with Diabetes or those with higher recidivism rates

- Ongoing /Long Term Grant support for program innovation
BENEFITS

➢ Emergency Room utilization reduced by 17% for preventable Diabetes related health concerns among participants

➢ A restored sense of TRUST which has resulted in behavioral changes and improved health outcomes among 98% of the enrolled participants.

➢ Community Health Workers are more integrated as a part of the overall health care team in Dorchester County

➢ NO COST to program participants for Diabetes Education and Training Program services

➢ A 5.14% reduction in hospital recidivism for preventable Diabetes related issues between 2012 and 2017.
Effective Solutions

-**Cost-Sharing among Providers and Community Stakeholders for Impacted or Susceptible Populations**

-**An Engaged Support Team – Participant, CHW, PCP, Resources and Service Agencies**

-**Communities Engaged in longer term Prevention & Self-Management Behaviors**

-**CHW providing accessible, mobile services which reduce the social determinants and social barriers**

**DSM Participant**

*Eastern Shore Wellness Solutions, Inc.*
Resources

DHMH - Maryland Health Equity Data
http://dhmh.maryland.gov/mhhd/Pages/Health-Equity-Data

Maryland Chartbook of Minority Health And Minority Health Disparities Data
Selected Statewide and Dorchester County Data

Chronic Disease SHIP Metrics: Mid-Shore
THANK YOU!

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