

Evaluation of Patient Characteristics and Outcomes of Patients receiving Medication Nutrition Therapy at a University Health Center in Mississippi

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Objectives

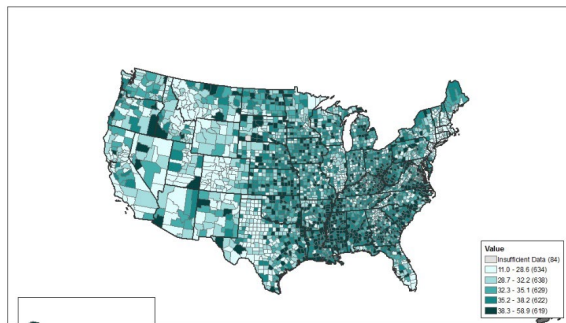


- Recognize 3 nutrition-related chronic diseases.
- Discuss the role of registered dietitian nutritionists (RDNs) in addressing a healthcare need among those with nutrition-related chronic diseases.
- Explore telehealth opportunities among RDNs.
- Review current patient characteristics and healthcare utilization of patients receiving medical nutrition therapy (MNT) at a university health center in Mississippi.

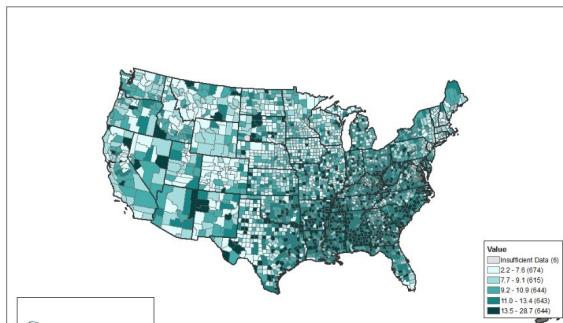
Obesity Prevalence Tracks with Diabetes and Hypertension



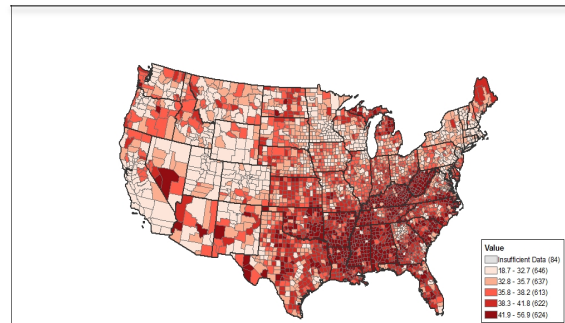
Obesity, Age-Adjusted Percentage, 20+, 2017



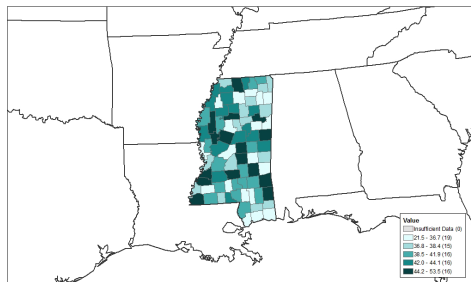
Diagnosed Diabetes, Age-Adjusted Percentage, 20+, 2017



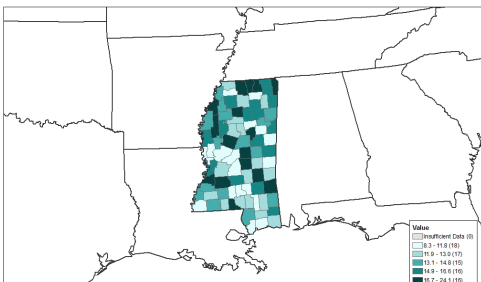
High Blood Pressure Among Adults Ages 18+, 2017



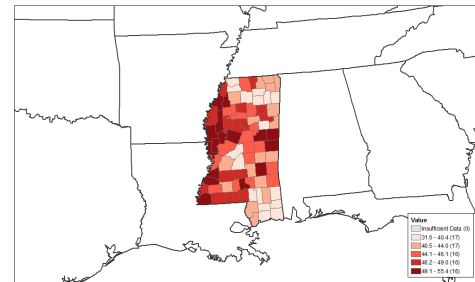
Obesity, Age-Adjusted Percentage, 20+, 2017



Diagnosed Diabetes, Age-Adjusted Percentage, 20+, 2017



High Blood Pressure Among Adults Ages 18+, 2017



This map was created using the Interactive Atlas of Heart Disease and Stroke, a website developed by the Centers for Disease Control and Prevention, Division for Heart Disease and Stroke Prevention. <http://www.cdc.gov/heartdisease>



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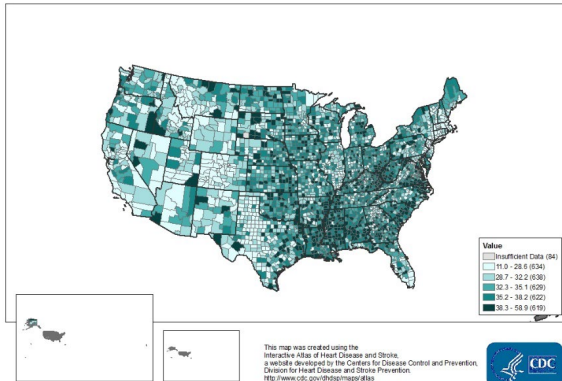
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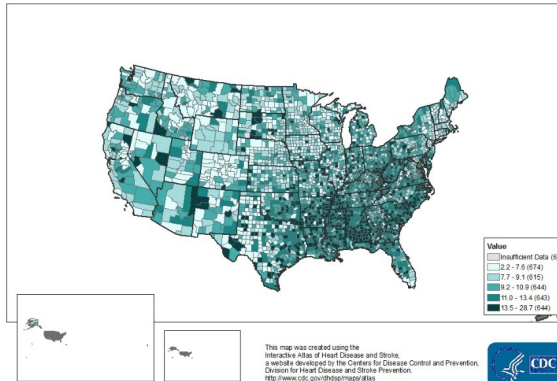
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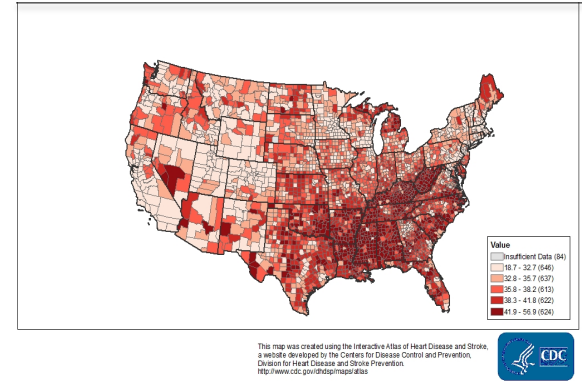
Obesity, Age-Adjusted Percentage, 20+, 2017



Diagnosed Diabetes, Age-Adjusted Percentage, 20+, 2017



High Blood Pressure Among Adults Ages 18+, 2017



What do obesity, diabetes, and hypertension have in common?

What do they have in common?

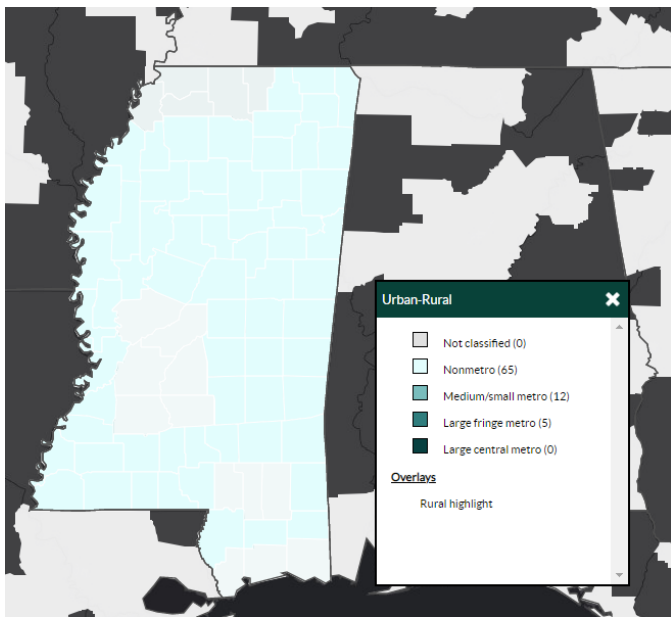


DIET!

Mississippi is a Rural State!



High Blood Pressure Among Adults Ages 18+, 2017

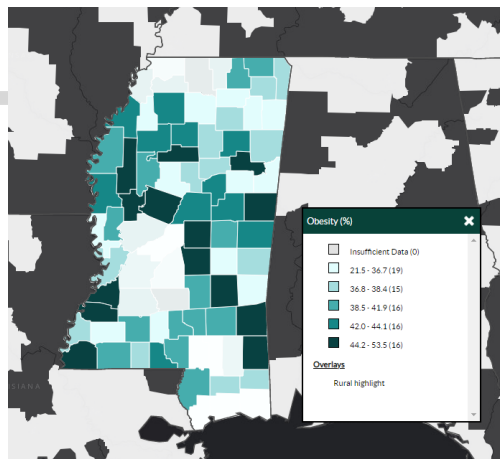


Mississippi has the 4th largest population living in a rural region in the U.S. with more than 51% living in a rural area.

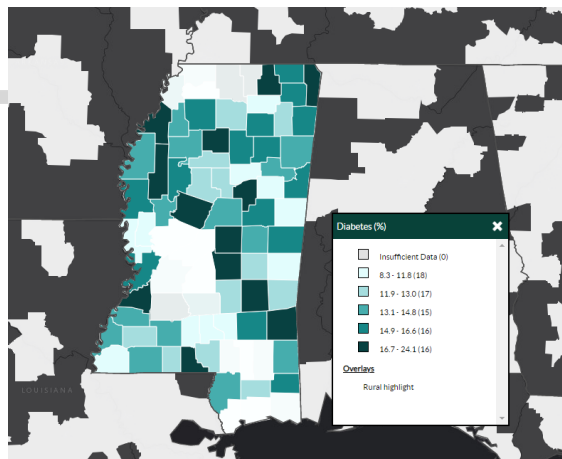


Opportunity for telehealth!

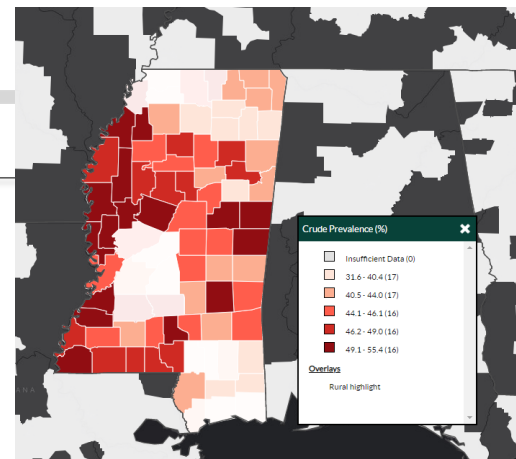
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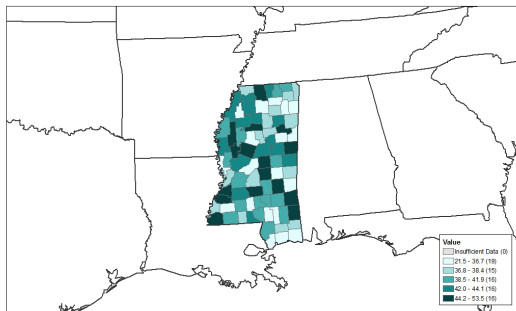
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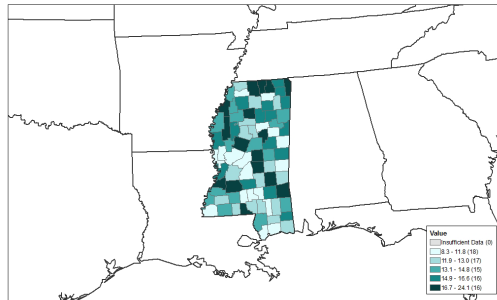
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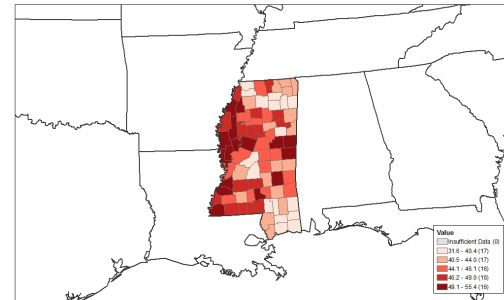
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What do they have in common?



- Nutrition-related chronic disease prevention and management require a multi-disciplinary approach.

Allied Health Professionals



- Medical Nutrition Therapy (MNT) is an *evidence-based process* administered by Registered Dietitian Nutritionists (RDNs) centered on **individualized** nutrition assessment, diagnosis, intervention, monitoring, and evaluation for patients with nutrition-related chronic conditions.
- Different from nutrition education.

MNT is Effective



Meta-Analysis > [J Clin Lipidol](#). 2018 Sep-Oct;12(5):1113-1122. doi: 10.1016/j.jacl.2018.06.016.

Epub 2018 Jul 3.

Clinical and cost benefits of medical nutrition therapy by registered dietitian nutritionists for management of dyslipidemia: A systematic review and meta-analysis

Geeta S

Elvira C > [J Ren Nutr](#). 2016 Jan;26(1):1-9. doi: 10.1053/j.jrn.2015.08.002. Epub 2015 Sep 26.

Medical Nutrition Therapy for Chronic Kidney Disease Improves Biomarkers and Slows Time to Dialysis

Desirée de Waal ¹, Emily Heaslip ², Peter Callas ³

Affiliations + expand

PMID: 26391566 DOI: [10.1053/j.jrn.2015.08.002](#)

> [J Acad Nutr Diet](#). 2017 Aug;117(8):1254-1264. doi: 10.1016/j.jand.2017.01.023. Epub 2017 Mar 17.

Diabetes Self-Management Education and Medical Nutrition Therapy Improve Patient Outcomes: A Pilot Study Documenting the Efficacy of Registered Dietitian Nutritionist Interventions through Retrospective Chart Review

Patricia Z Marincic, Amie Hardin, Maria V Salazar, Susan Scott, Shirley X Fan, Philippe R Gaillard

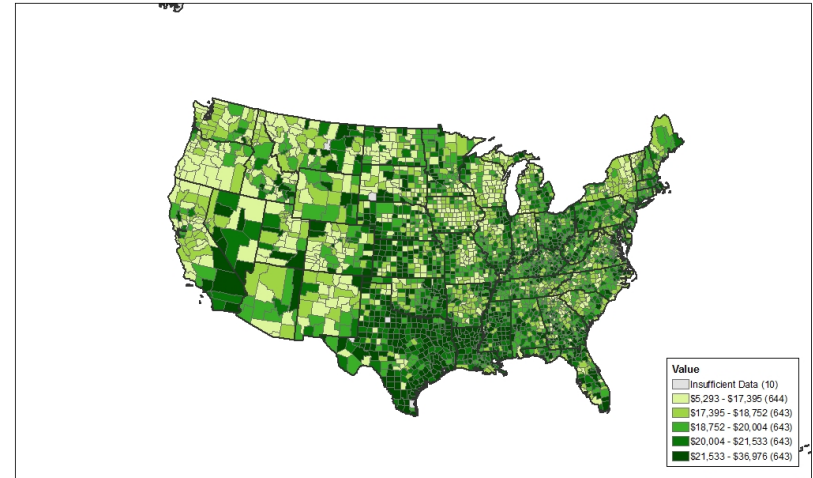
PMID: 28330731 DOI: [10.1016/j.jand.2017.01.023](#)

How does MNT Impact Healthcare Utilization?



- We conducted a retrospective cohort study to evaluate the telehealth utilization among MNT patients and the subsequent hospital utilizations

Cost of Care per Capita for Medicare Beneficiaries Diagnosed with Heart Disease,
Total, 2017



This map was created using the Interactive Atlas of Heart Disease and Stroke, a website developed by the Centers for Disease Control and Prevention, Division for Heart Disease and Stroke Prevention.
<http://www.cdc.gov/dhdsr/maps/atlas>



MNT encounter with RDN, June 1st,
2021 – June 30th, 2022

Inclusion: (80)

≥18 years old

AND

Initial MNT encounter
(6/1/21 – 12/31/21)

AND

At least 1 Follow-up MNT
encounter by 6/30/22

Hospital Utilization
June 1st, 2021 – June 30th, 2022



MNT encounter with RDN
June 1st, 2021 – June 30th, 2022

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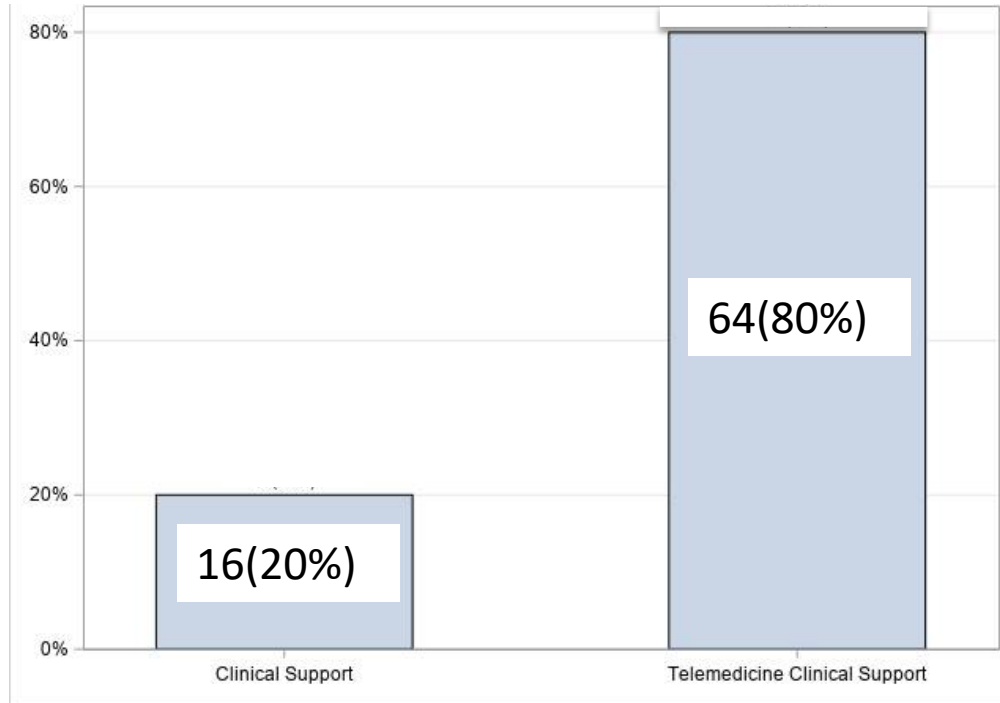
88% Female

75% Black

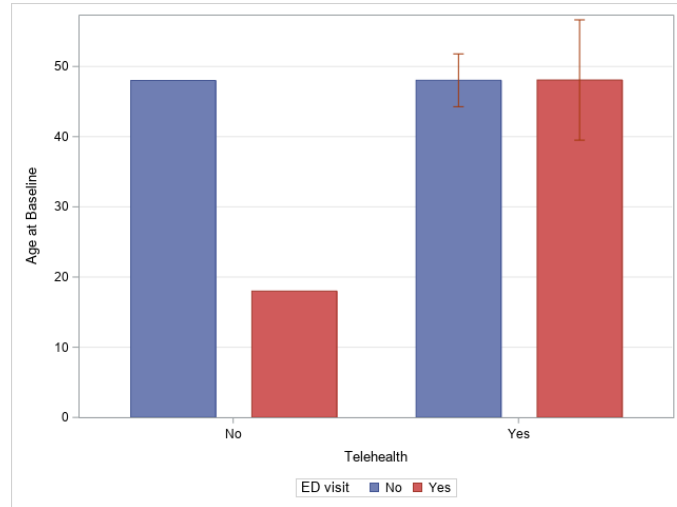
47.7 years



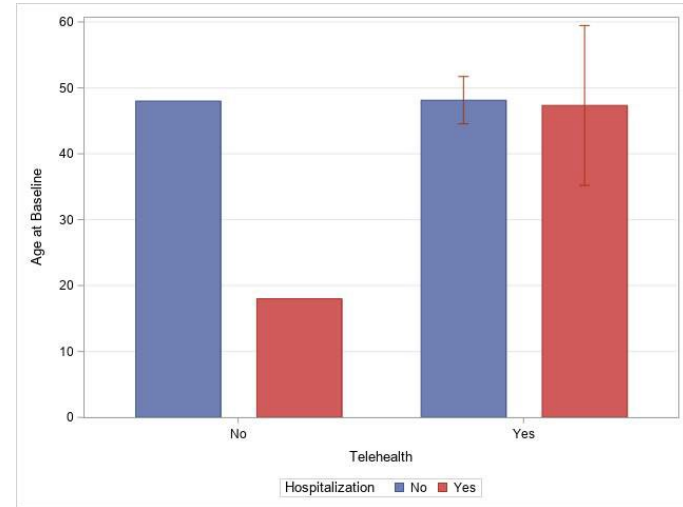
80% of MNT Encounters were Provided via Telehealth



No Significant Association Between MNT and Healthcare Utilization



15 (19%) of patients who received MNT visited the ED



10 (13%) were hospitalized for an average of 2.4 days (SD = 2.2) at UMMC

Conclusions



- Most patients (98%) used telehealth services for medical-related visits throughout the study period (not limited to MNT).
- Due to the limited number of MNT encounters during the study period, it is difficult to determine the clinical and economic impact of MNT telehealth services separate from the in-person MNT services provided by one RDN.
- Further studies with appropriate control groups and a larger patient cohort are needed to determine the clinical and economic influence of MNT services provided via telehealth, in-person, or a hybrid approach.
 - IRB approval to assess patient specific data

Acknowledgements

- UMMC Telehealth Center of Excellence
 - Department of Preventive Medicine
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 - Yueh-Yun (Lynda) Lin, MS

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