



Vascular Surgery

The Impact of Rural vs. Metropolitan Community Health Factors on Diabetic Foot Ulcers *in Central Appalachia*

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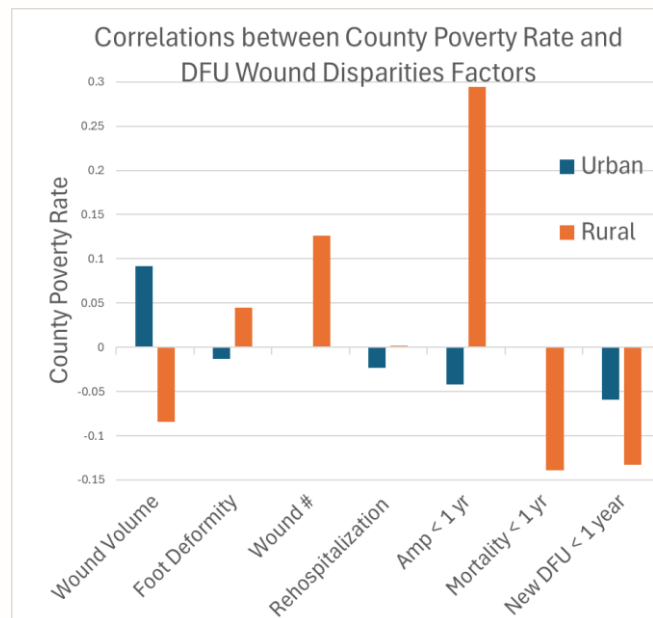
Background

- Diabetic patients have increased risk of major amputation after development of foot ulcer (DFU)
- Diabetic patients have higher mortality in rural counties compared to urban counties

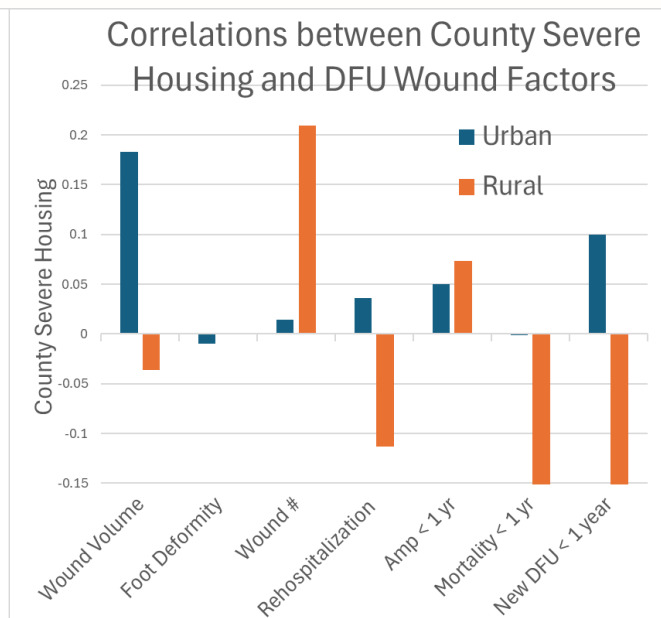
Methods

- Retrospective review of patients with DFU
- Jan 2011 to Dec 2021
- Patients > 18yo with T2 DM
- Rural vs Urban defined by Rural Urban Continuum Codes (RUCC) using patient zip code
- Community factors:
 - # PCPs in county
 - Percent uninsured
 - County poverty rate
 - County food insecurity
 - # of Emergency Rooms in county
 - County low income housing
- DFU Factors and 1 year amputation rate and community factors evaluated separately for rural and urban patients

Results



Graph 1: Poverty rate is associated with increased risk of Foot deformity, # of wounds, amputation in 1 yr in rural counties more so than urban counties



Graph 2: Severe Housing is associated with increased risk of # of wounds and amputation in 1 yr in rural counties more so than urban counties. However, there appears to be a protective effect of rehospitalizations, mortality in 1 yr and new DFU

Conclusion

- Rural patients experience more associations between community factors and their health
- Effects between community variables and their health are larger (i.e., stronger) for rural patients.
- Amputations for patients in *rural* areas is highly linked to poverty rates and food insecurity
- Need to focus efforts for intervention based on community factors