



49th Annual Conference of the Urban Affairs Association

Transportation and Preventive Healthcare for Older Adults

Zeenat Kotval-K* and Linda Keilman**

*School of Planning, Design & Construction

**College of Nursing
Michigan State University

Agenda

- Background
- Literature
- Study Area
- Results
- Discussion & Conclusion



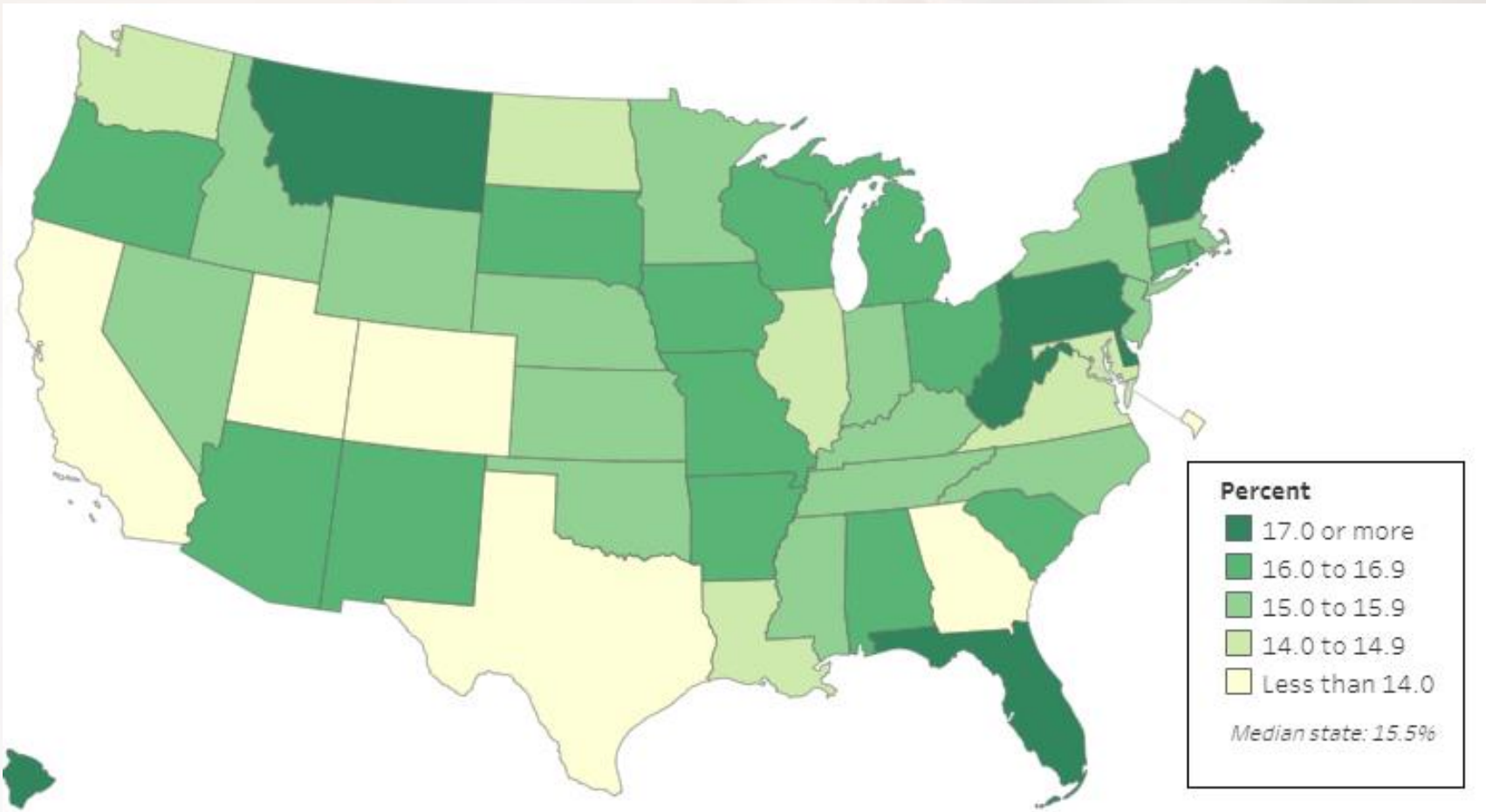
Background

- Older Adults as the fastest growing cohort
- Quality of life and aging-in-place
- Transportation services are critical
- Physical, mental and social isolation
- The connection between transportation and preventive healthcare attainment



Background

Percent of Population Aged 65 years and Older



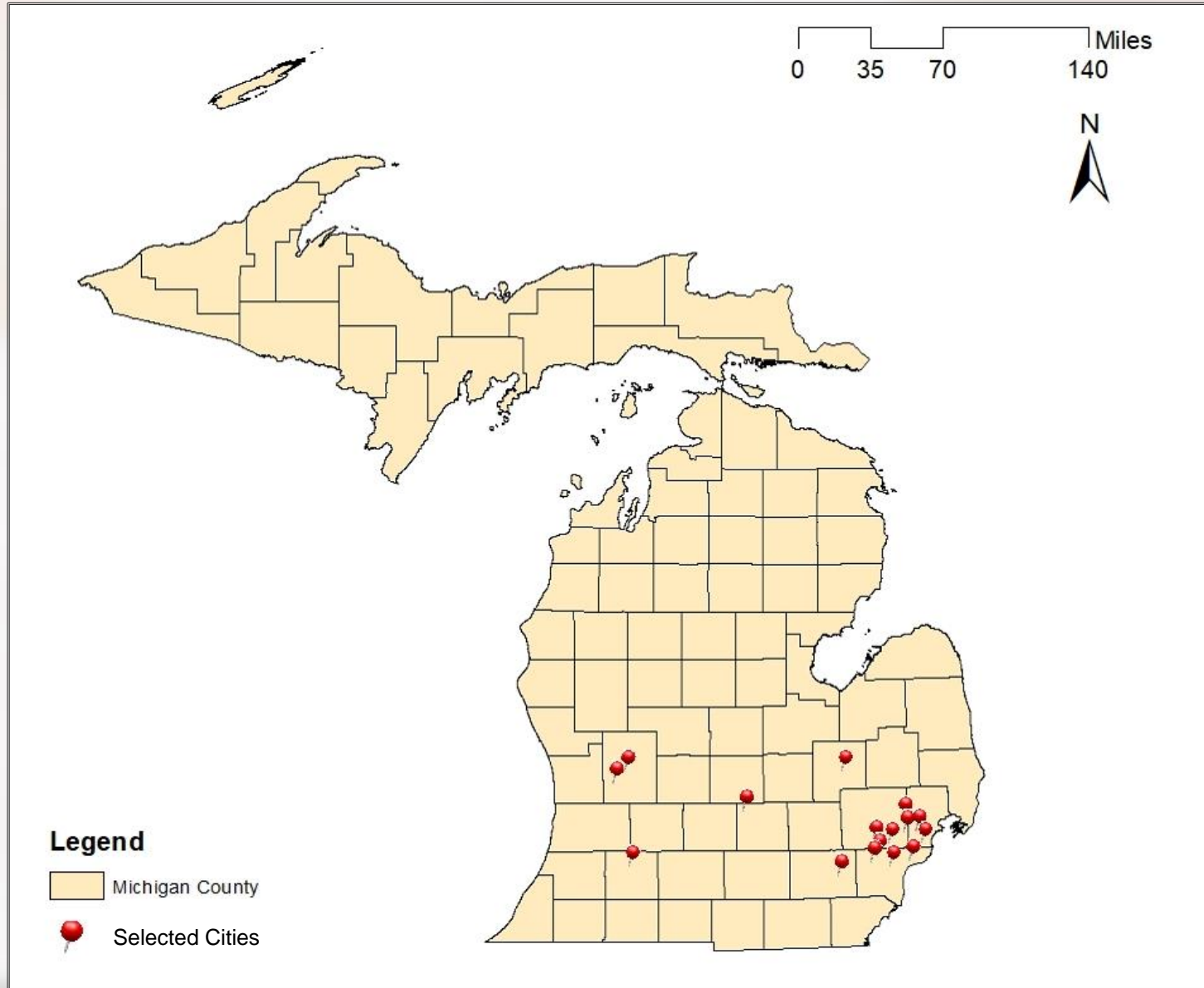
Literature

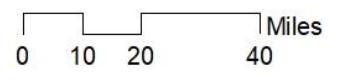
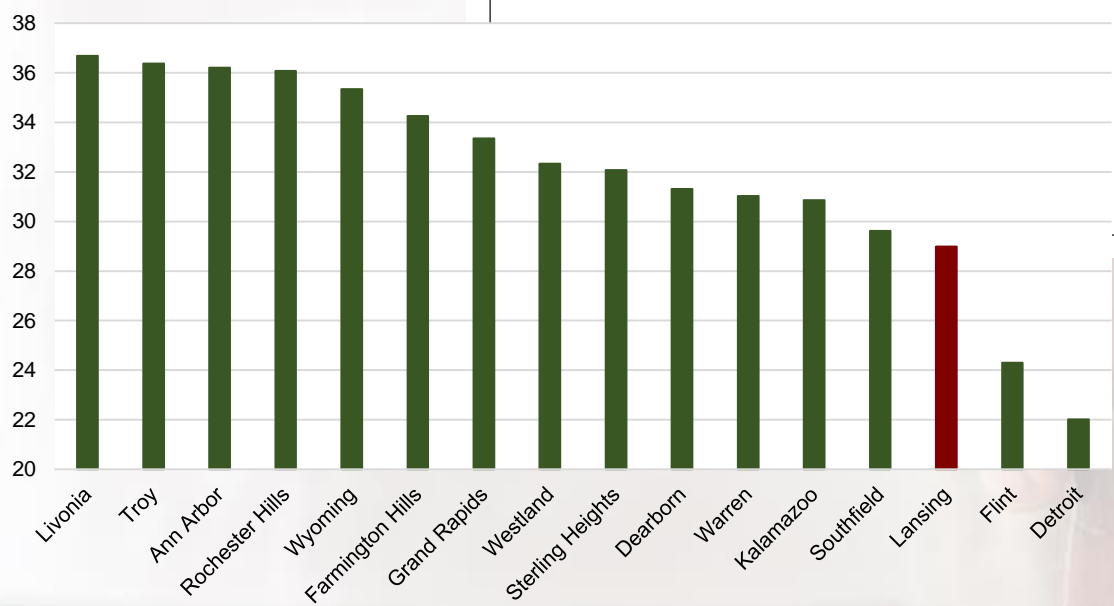
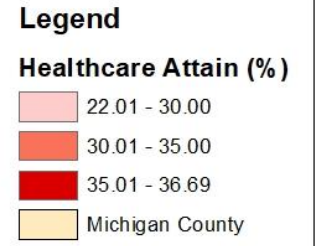
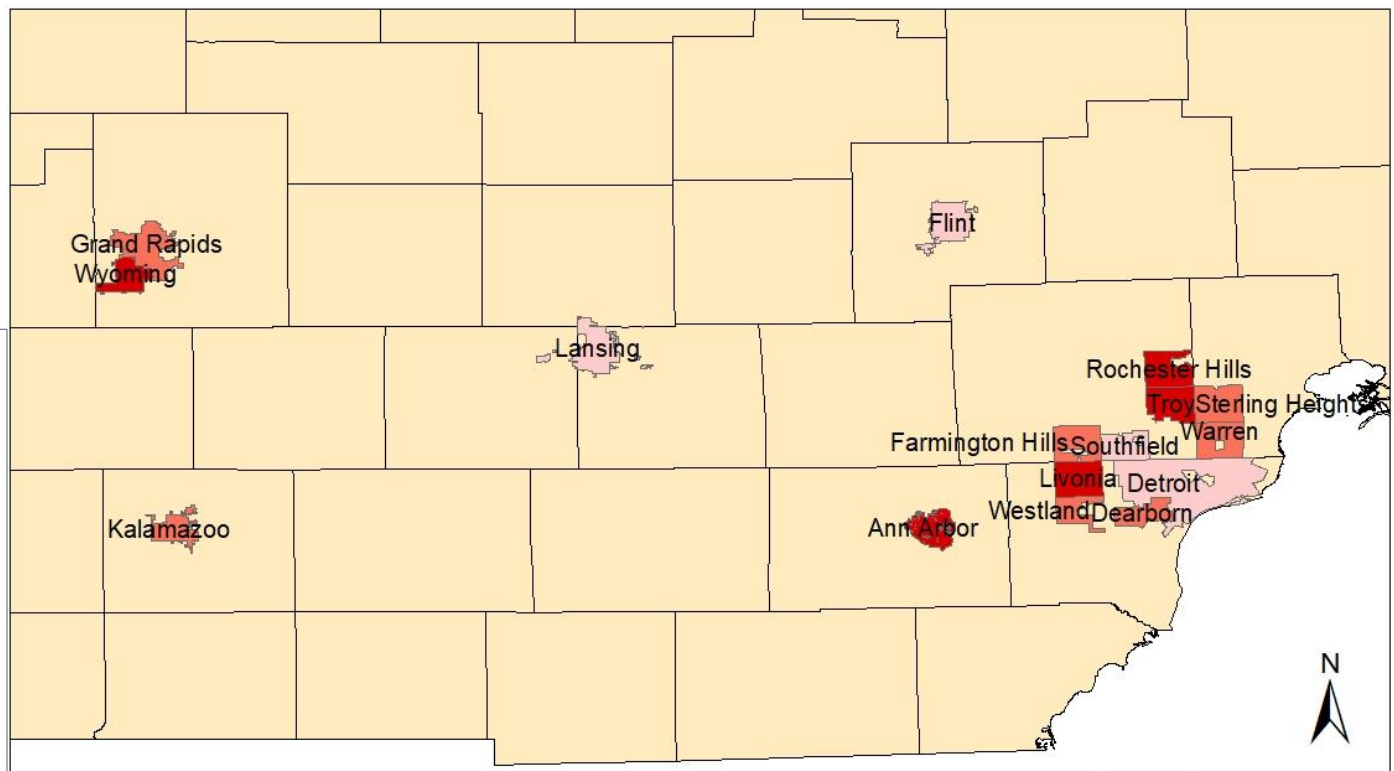
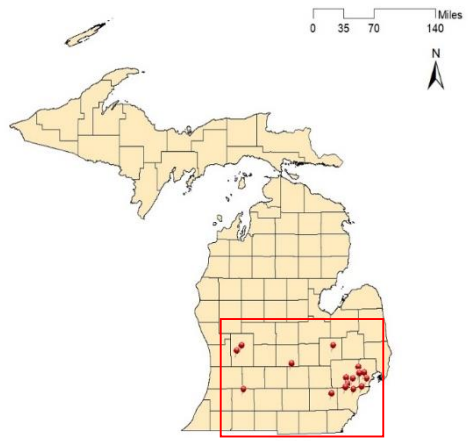
- Current transit systems pose barriers for the elderly (Kotval-K, 2017; Thakuriah et al., 2011)
 - All stops are not ADA compliant
 - Seasons play a role
 - Distance from residence and special needs
- Transportation services and healthcare attainment (Battista et al., 2015; Smith et al., 2017; Wallace et al., 2005)
 - Urban versus rural areas
 - Accessibility to healthcare facilities
 - Missed appointments
- Socio-economic characteristics and healthcare attainment (Syed, Gerber & Sharp, 2013; Wallace et al., 2005)
 - Income and race compound barriers to healthcare
 - Insurance has the same effect

Data

- 500 Cities: Local Data for Better Health
 - Measures are: Health Outcomes, Prevention, and Unhealthy Behaviors
 - Census tract level
 - 500 largest cities in the US
- US Census – Socioeconomic characteristics
- Transportation provision from agency websites

Study Area





Results

City Name

Livonia

Troy

Ann Arbor

Rochester Hills

Wyoming

Farmington Hills

Grand Rapids

Westland

Sterling Heights

Dearborn

Warren

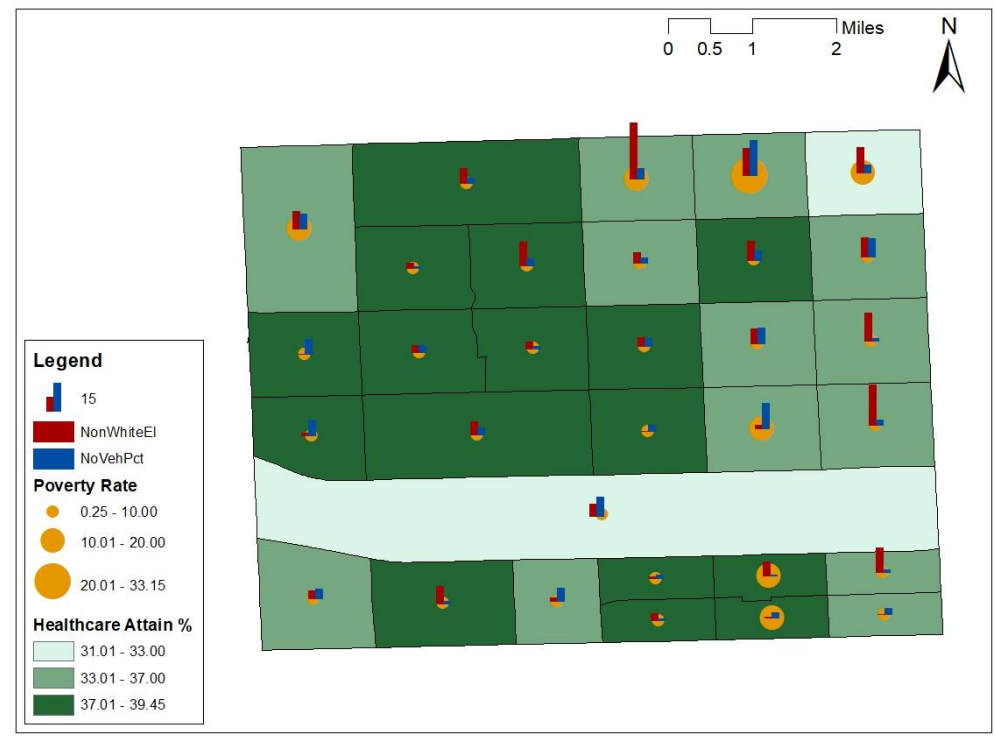
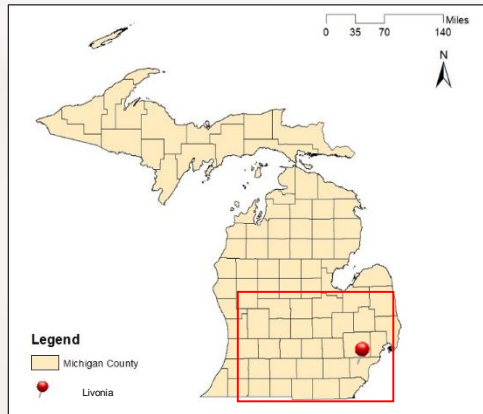
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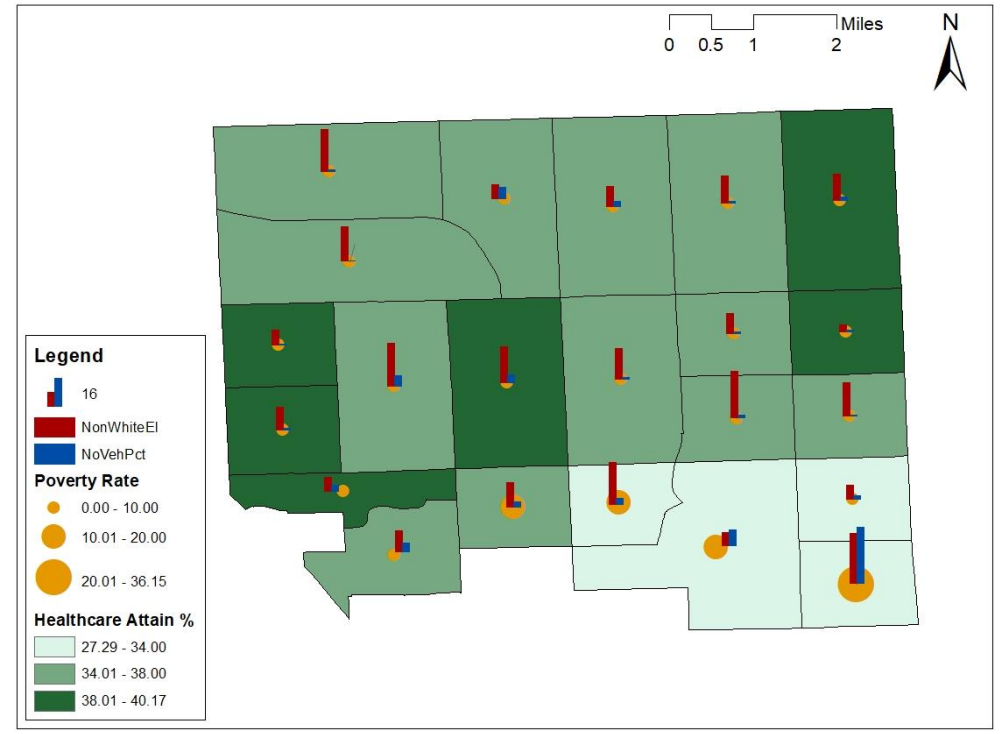
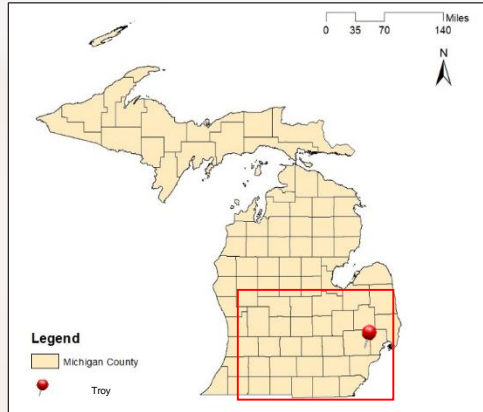
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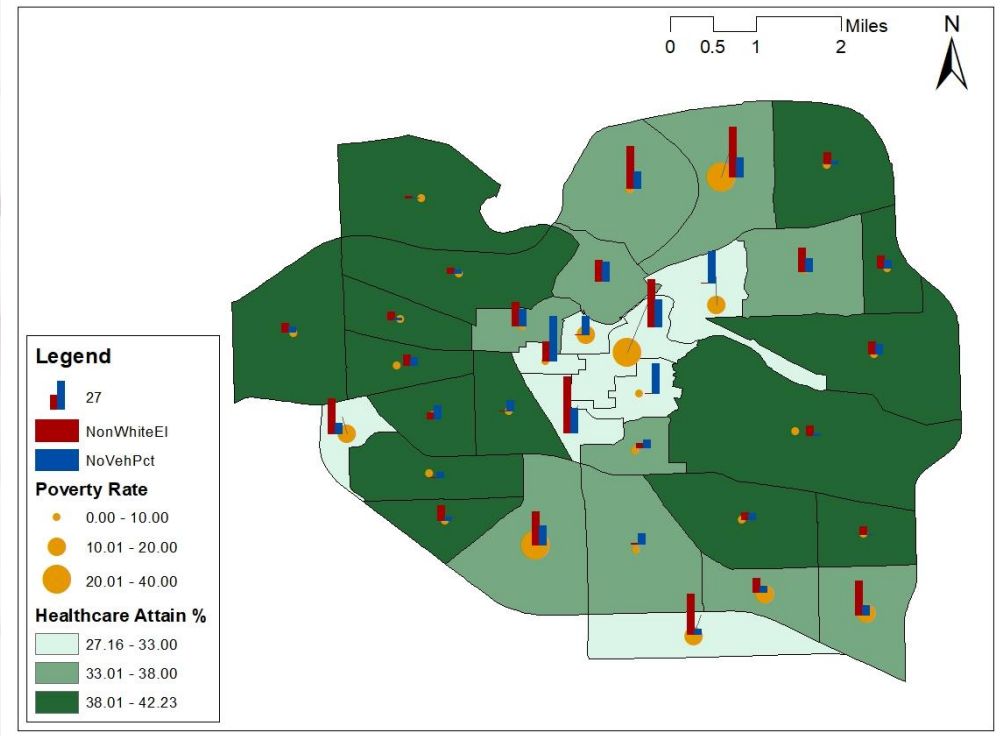
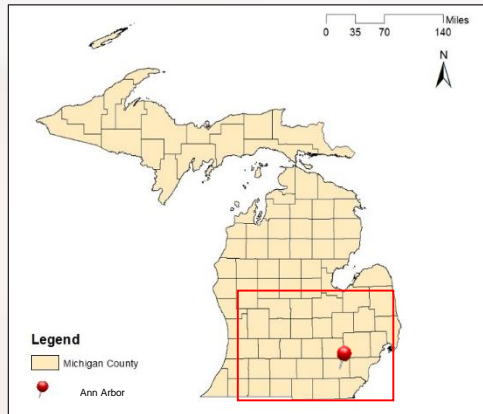
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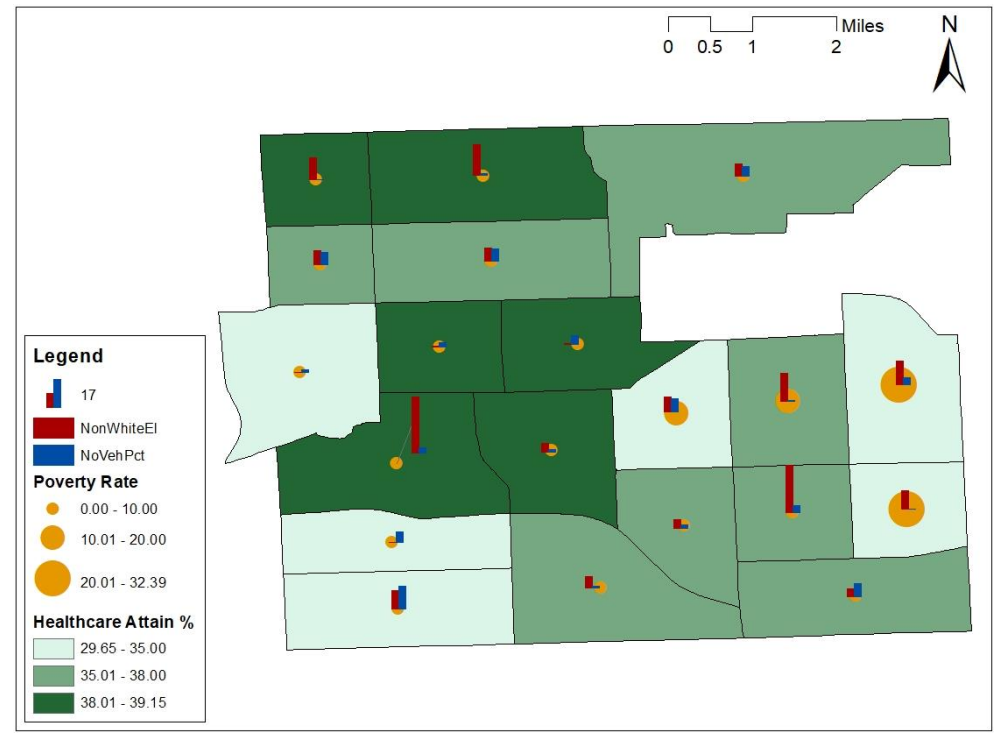
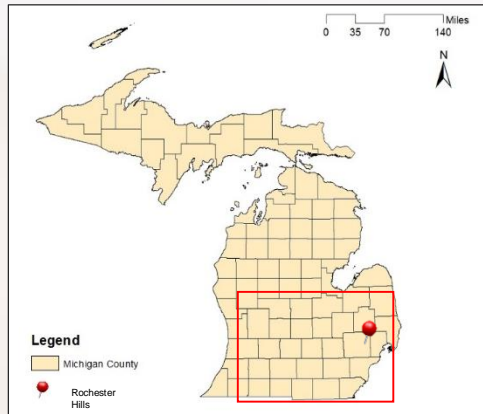
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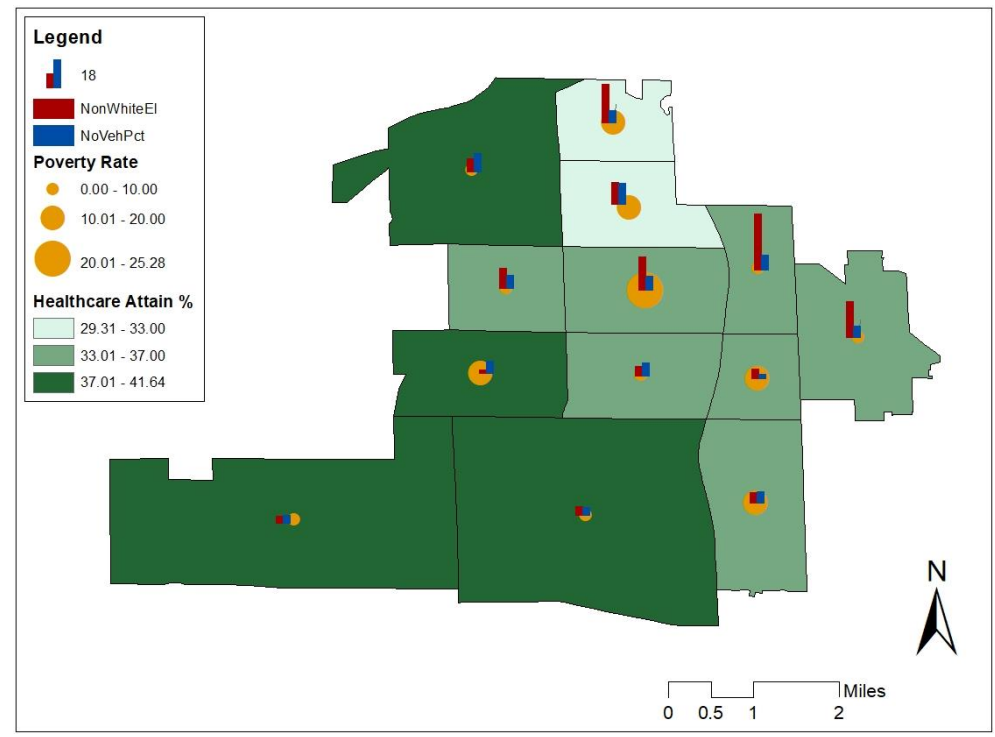
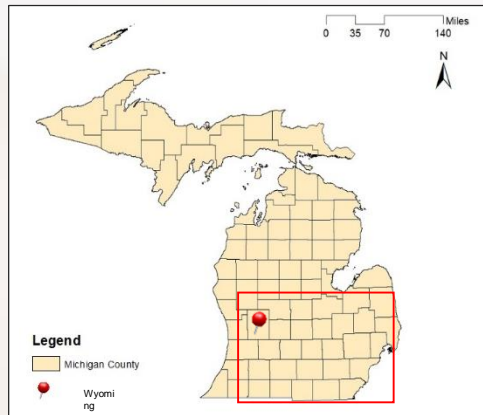
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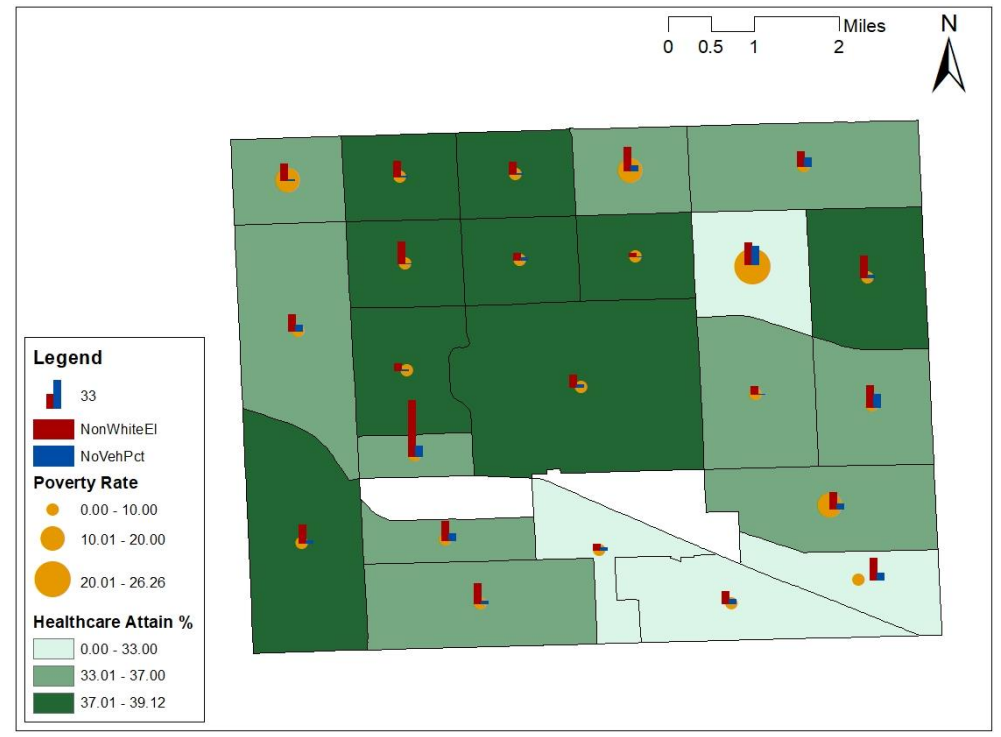
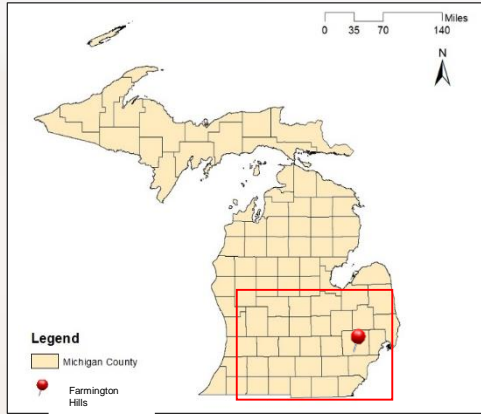
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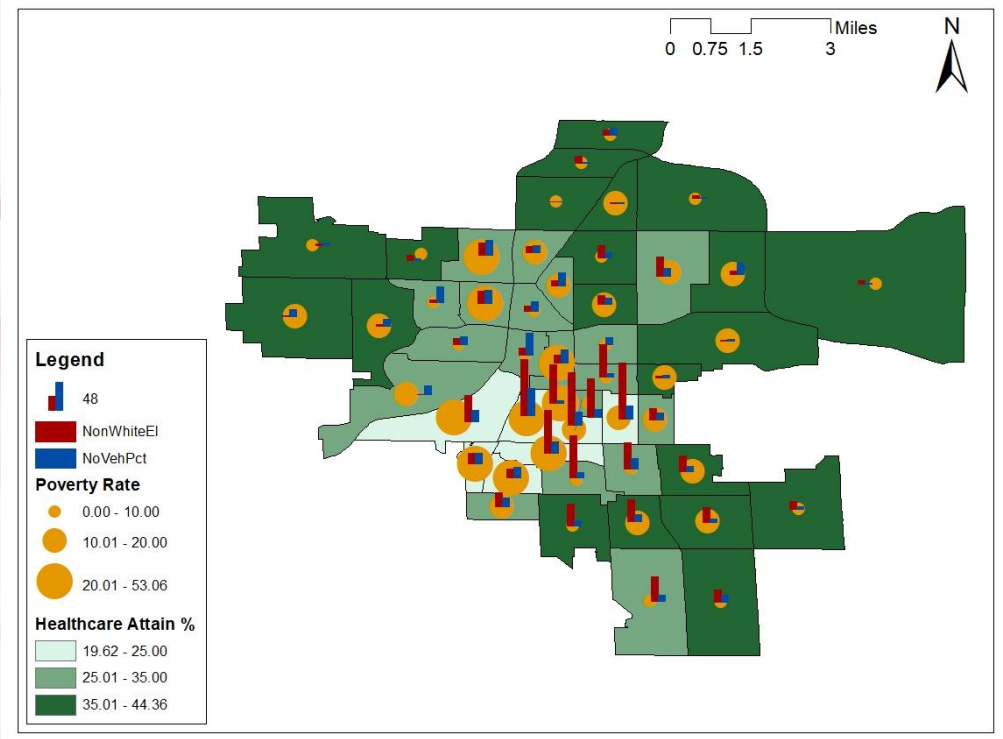
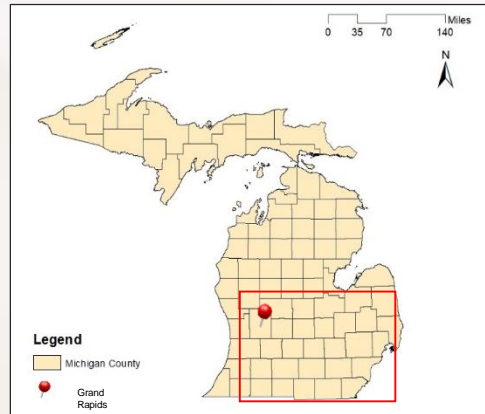
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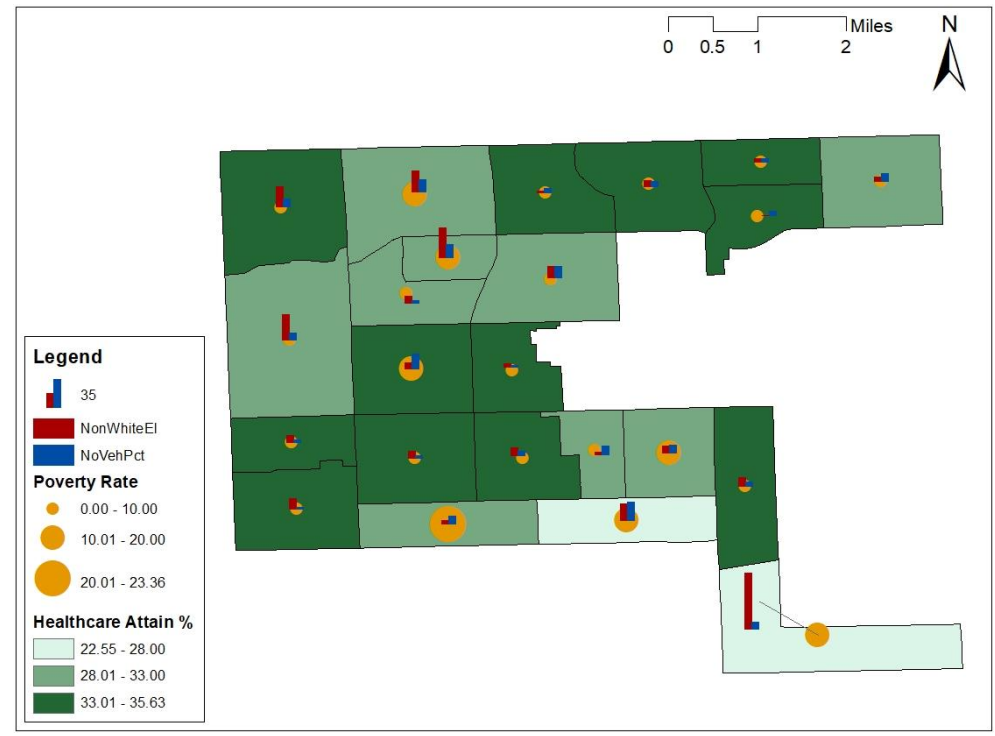
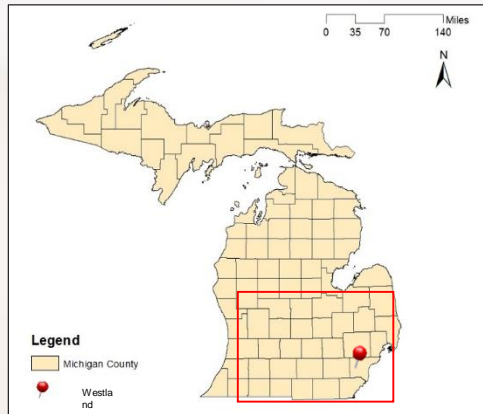
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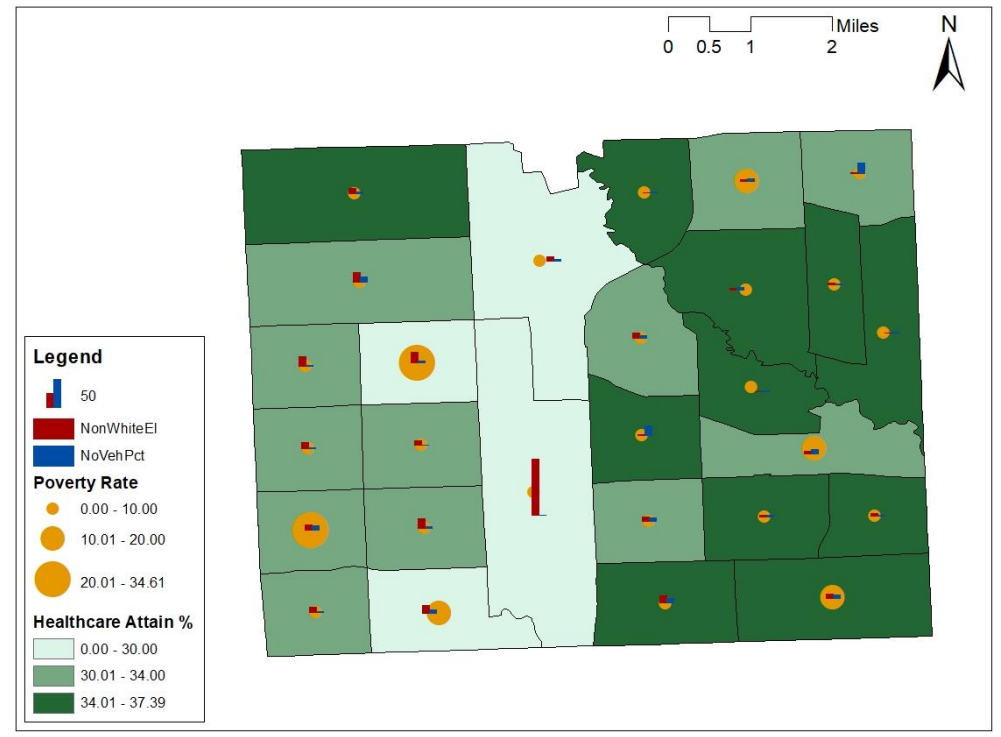
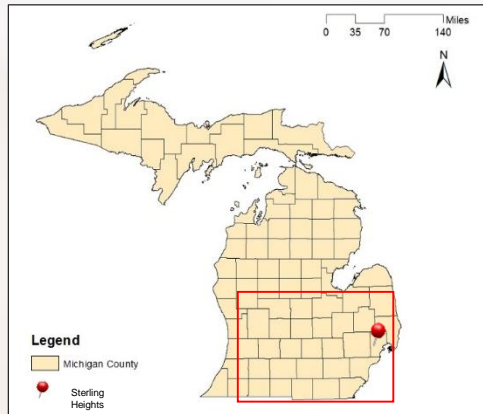
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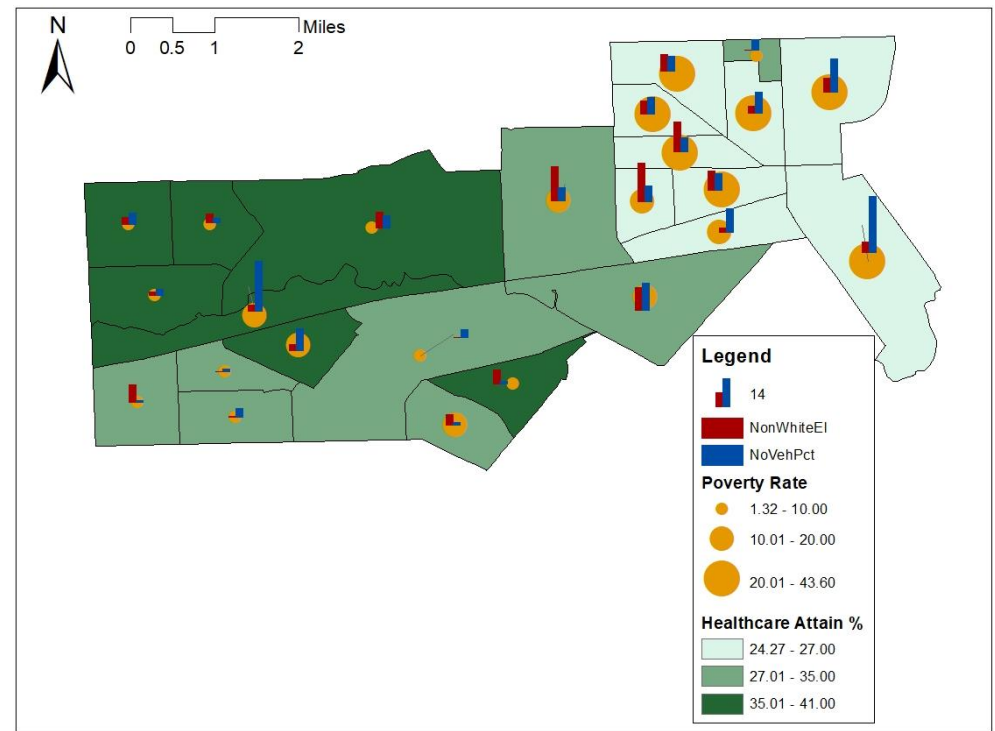
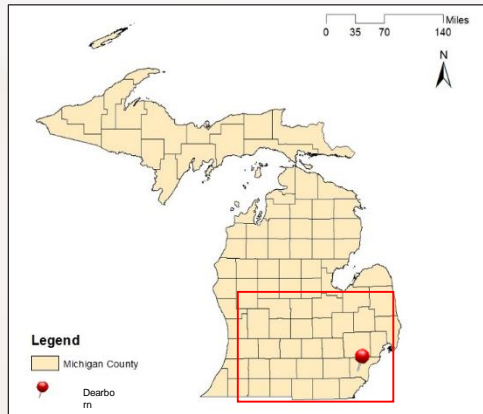
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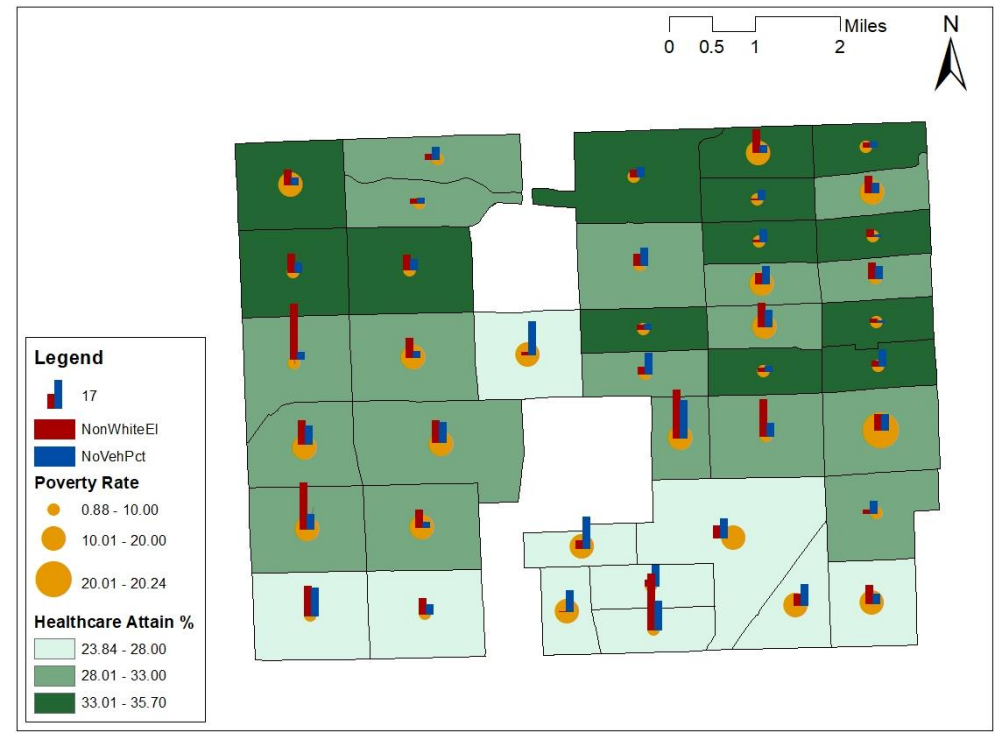
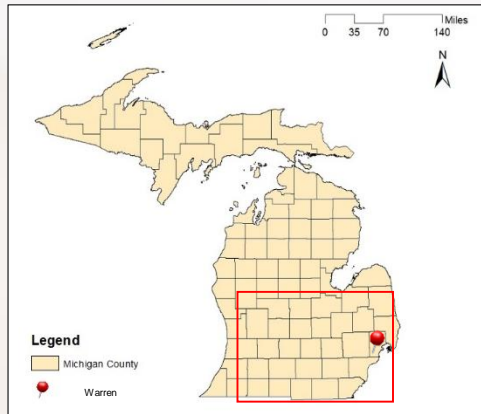
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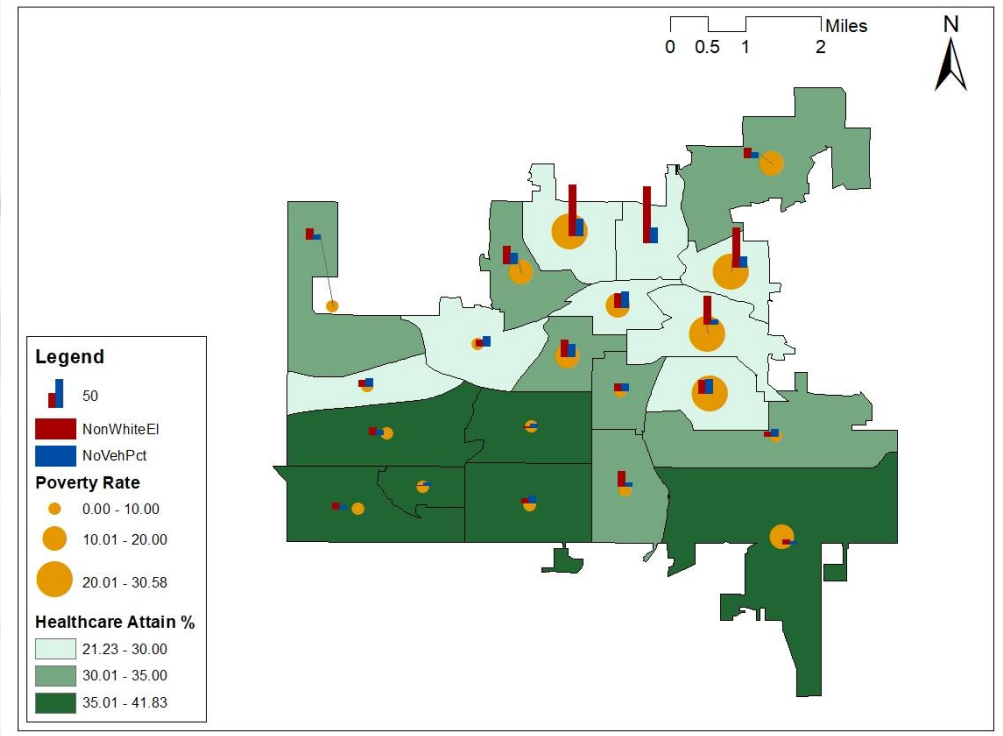
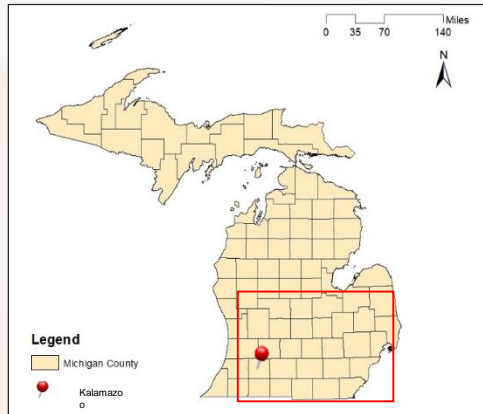
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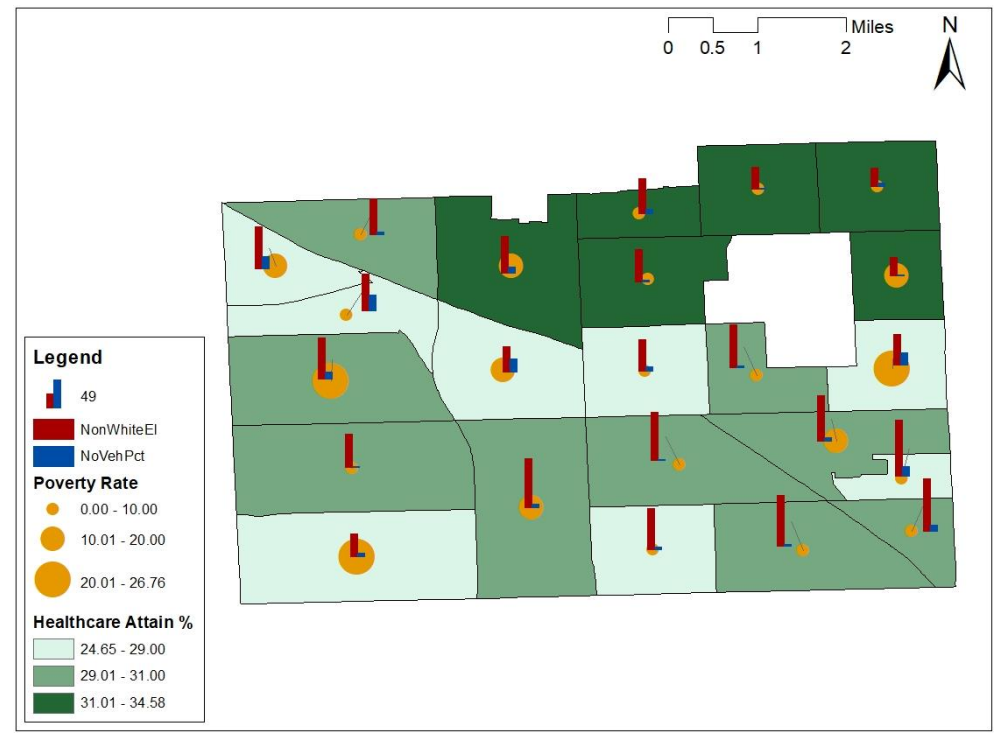
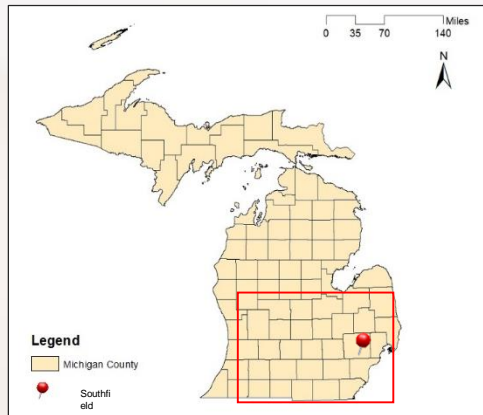
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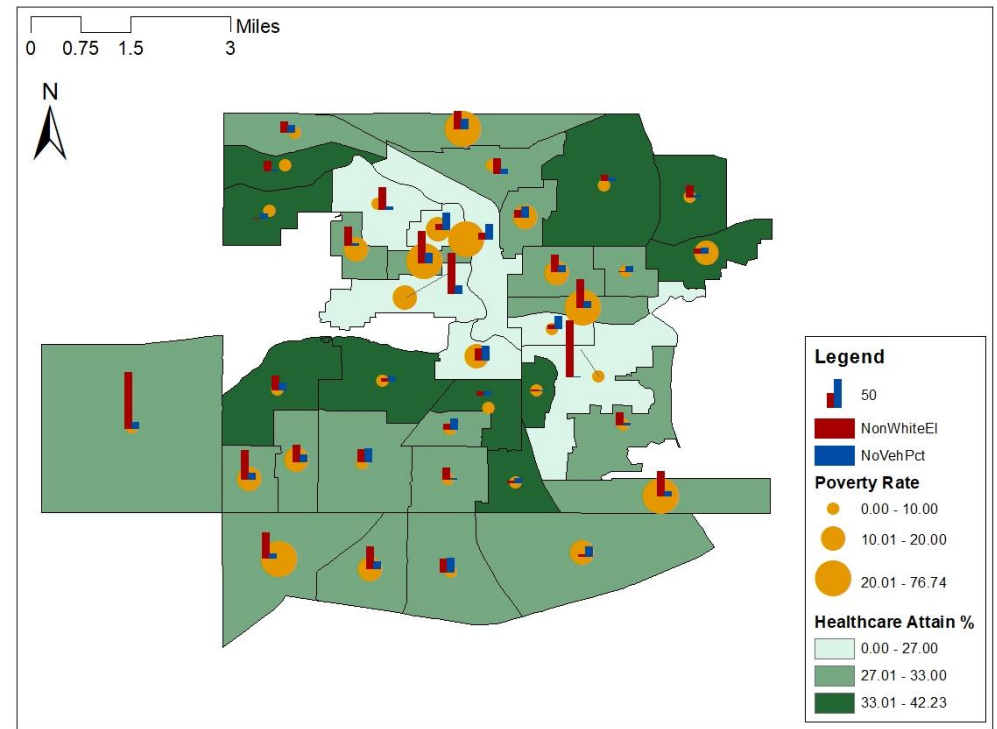
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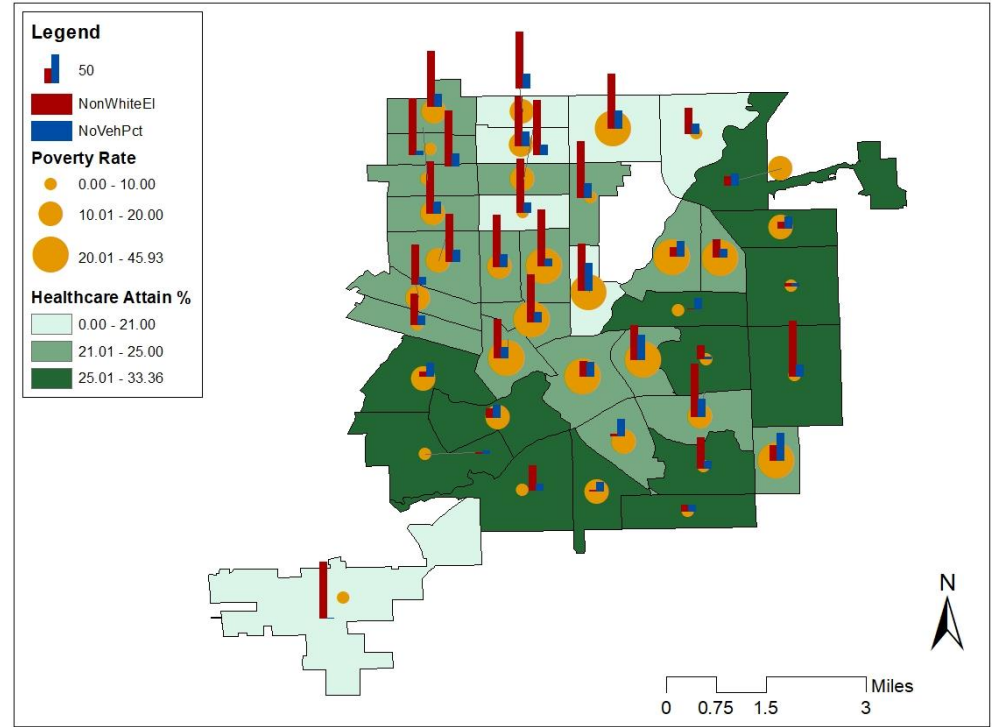
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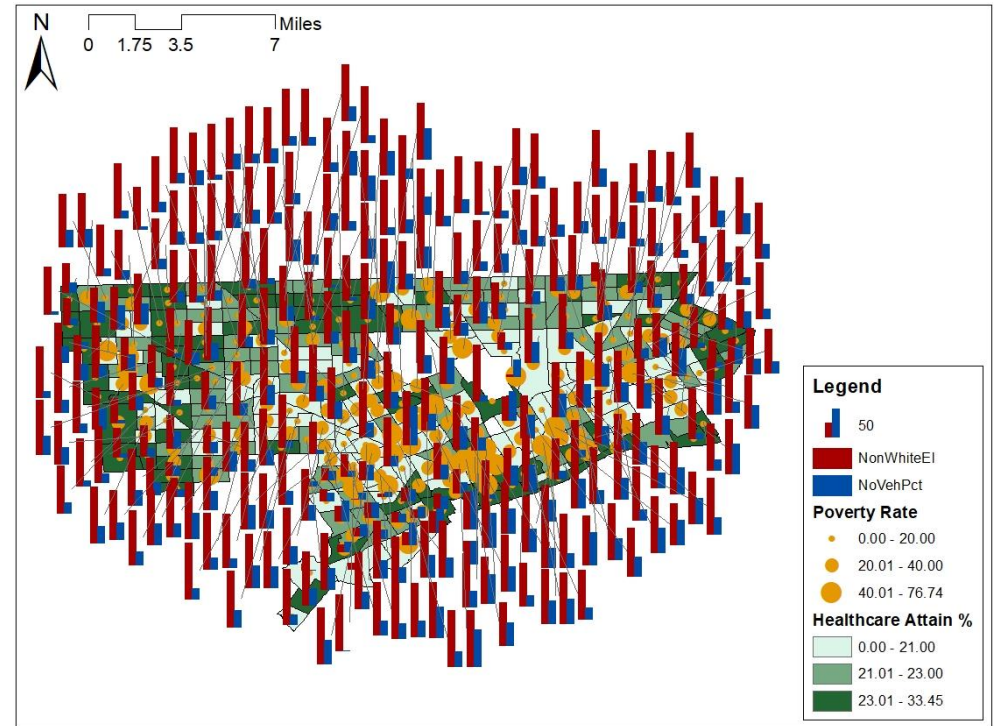
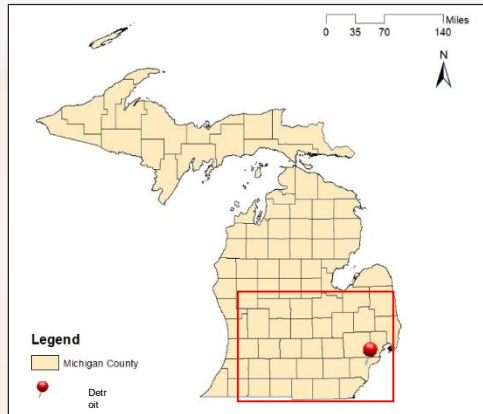
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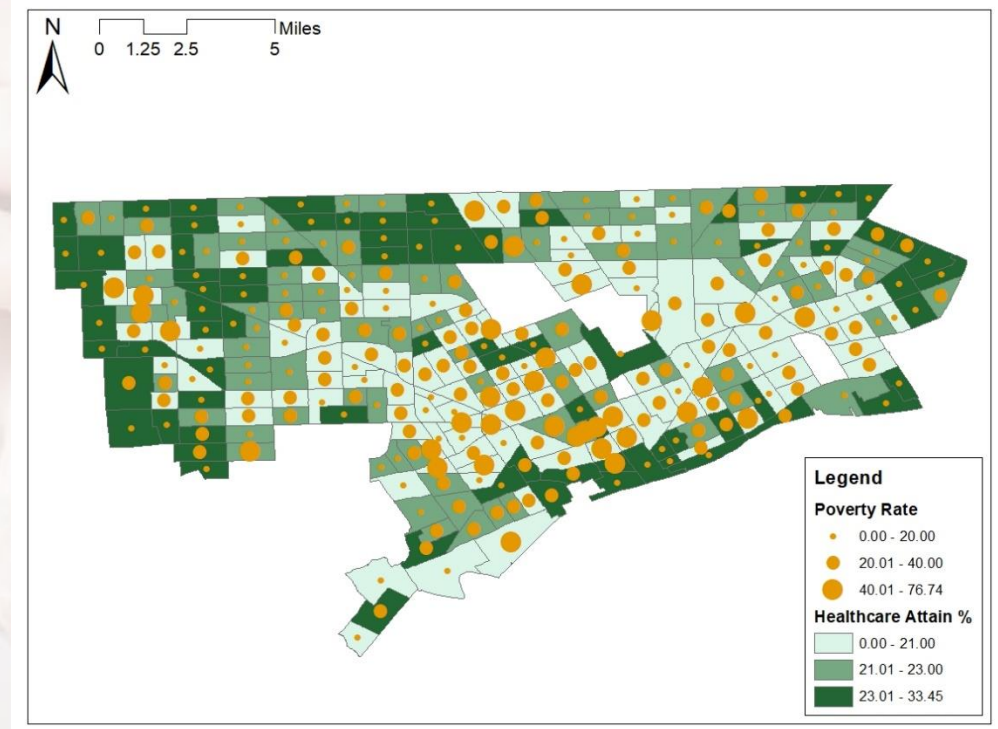
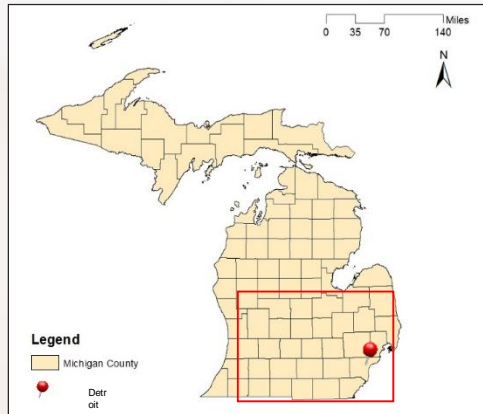
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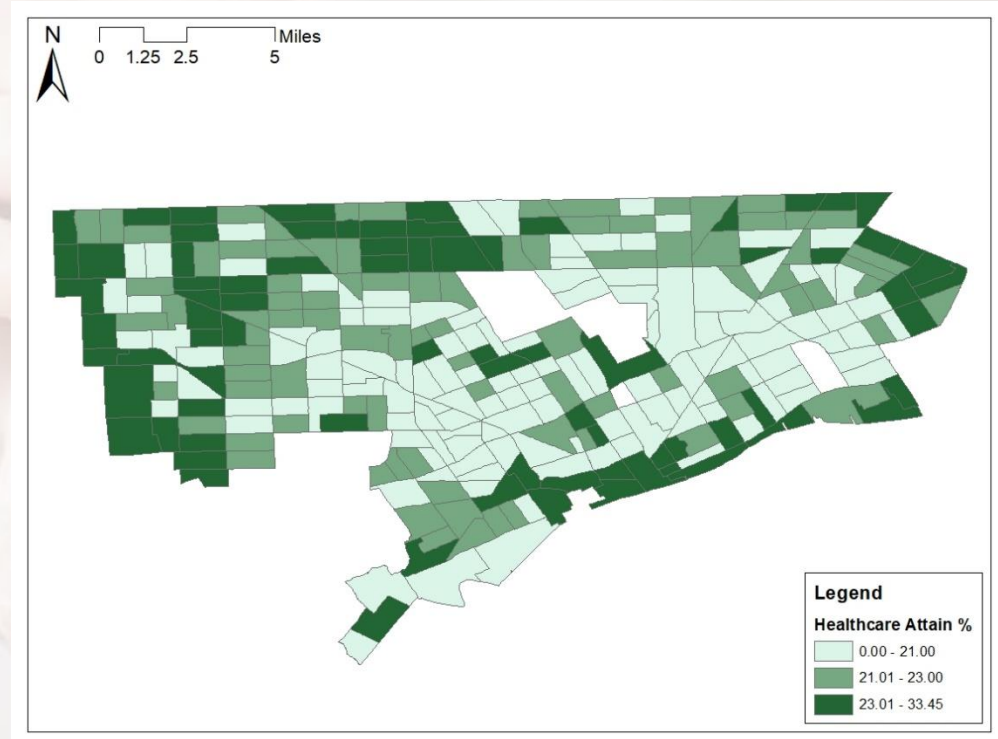
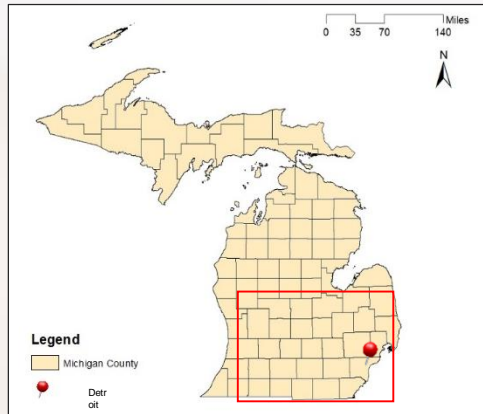
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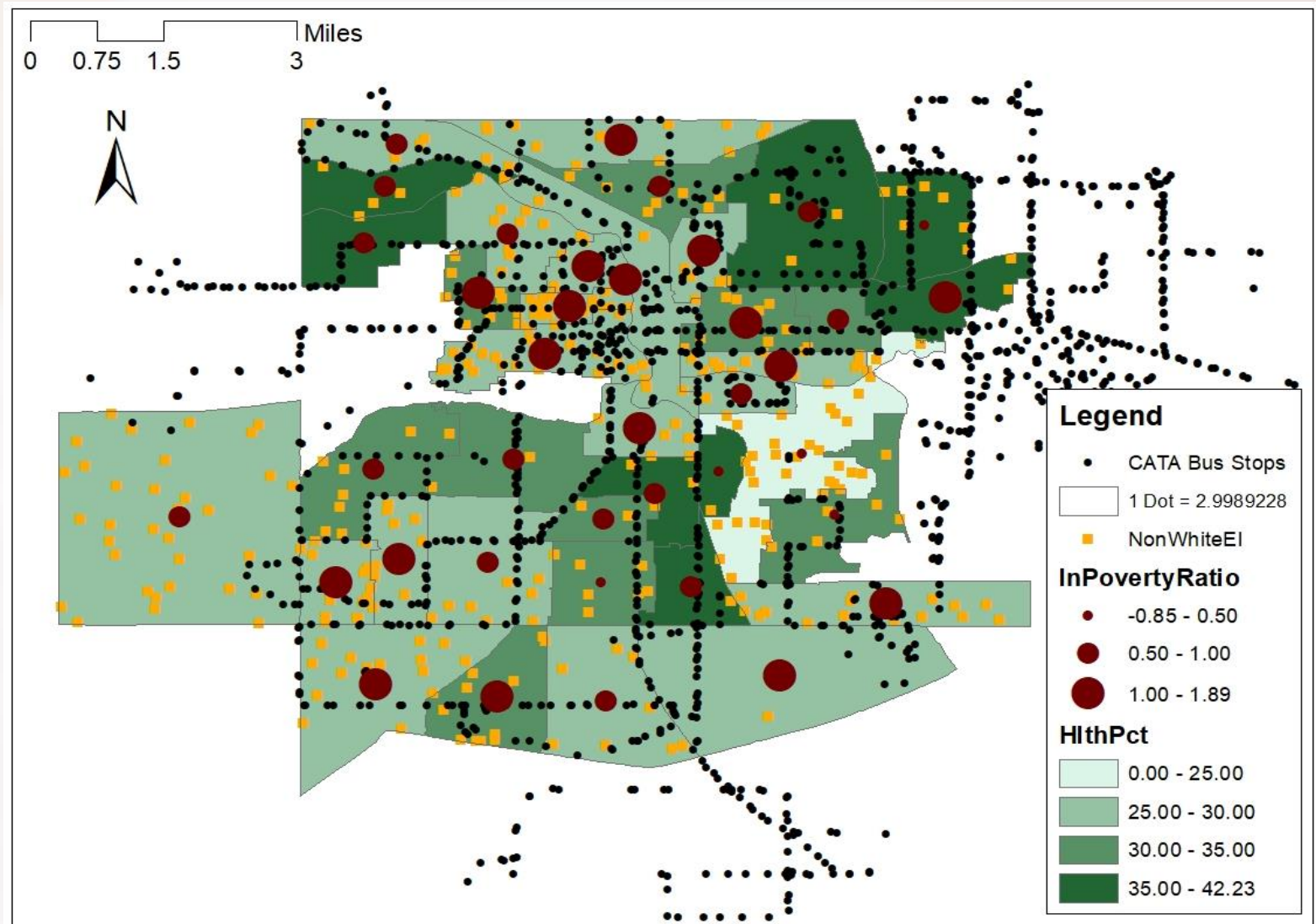
Variable	Model 1	Model 2
Area Served	4.2304*	
Requirements	2.6348***	1.7356***
Fees	5.9851***	
Door to Door Services	4.0303***	2.7123***
Wheelchair capable	-2.1288*	
Population without vehicles (%)	-0.2738***	-0.0858***
WalkScore		-0.0245**
Poverty Ratio among the Elderly		-2.1086***
Non-White Elderly Population (%)		-0.0707***
Elderly Population Living Alone (%)		0.0389***
Elderly Population with Disabilities (%)		-0.0632***
Housing cost (%)		-0.1219***
_cons	25.3746***	38.2922***
R ²	0.6000	0.7568
N	679	683

* p<.05; ** p<.01; *** p<.001

Results - Further Investigation?

- Statistically significant relationship between aspects of transportation provision and preventive healthcare attainment for Older Adults
- Socio-economic variables also have a critical impact on healthcare attainment
- Minute nuances involved in aspects of transportation and in healthcare attainment
- These nuances are not visible in numbers alone
- What are some of the barriers being faced then?

Further Investigation?



Discussion and Conclusion

- Novel dataset allows us to tie different aspects related to the built environment to public health
- Older adults are increasingly going to need considerable attention to be able to successfully age-in-place
- Provision of door-to-door services significantly impacts preventive healthcare attainment
- Preventive healthcare attainment leads to more managed health and attention to healthy lifestyles
- Transportation provision not only impacts preventive healthcare but also quality of life for Older Adults

Thank you!

Happy to take questions/comments!



Acknowledgement: This research is based upon work supported by the Urban Institute through funds provided by the Robert Wood Johnson Foundation. We thank them for their support but acknowledge that the findings and conclusions presented here are those of the authors alone, and do not necessarily reflect the opinions of the Urban Institute or the Robert Wood Johnson Foundation

Transportation Provision Dataset

City Name	Services Program Name	Area Served	Advanced Notice Needed	Same-day Ride	Service Fees/\$	Door to Door Services	Service Times	
							Monday to Friday	Saturday & Sunday
Ann Arbor	GoldRide (Shared-ride trips)	City	Y	Y	3.5	Y	6:30 a.m.-11:45 p.m.	Sat. 7:30 a.m.-10:45 p.m., and Sun. 8 a.m.-7:45 p.m.
Dearborn	Dearborn Senior Citizen Transportation	City	Y	N	1	N	8:30 a.m. - 3:30 p.m.	Closed
Detroit	Smart Connector	City	Y	N	1	N	6:00 a.m. - 6:00 p.m.	Closed
Farmington Hills	Farmington Hills Senior Transportation	City	Y	N	2	N	9:00 a.m. - 3:30 p.m.	Closed
Flint	Your Ride	City	Y	Y	2.25	Y (request)	6:30 a.m. - 10:30 p.m.	Sat. 6:30 a.m. - 10:30 p.m. and Sun. 7:00 a.m. - 7:30 p.m.
Grand Rapids	Ridelink	City	Y	Y	2	Y	7:30 a.m.–4:30 p.m.	Sun. 8:00 a.m. – 2:00 p.m.
Kalamazoo	Metro Connect	City	Y	Y	4	Y (request)	6:00 a.m. to 12:15 a.m.	Sat. 6:00 a.m. - 10:15 p.m. and Sun. 8:00 a.m. - 6:00 p.m.
Lansing	Spec-Tran	¾ of a mile on CATA's fixed routes	Y	N	2.5	N	5:40 a.m. - 11:05 p.m.	Sat. 8:15 a.m. - 10:50 p.m. and Sun. 9:30 a.m. - 7:10 p.m.

Transportation Provision Dataset

City Name	Services Program Name	Area Served	Advanced Notice Needed	Same-day Ride	Service Fees/\$	Door to Door Services	Service Times	
							Monday to Friday	Saturday & Sunday
Livonia	Livonia Community Transit – Senior/Disabled Transportation	City	Y	N	2	Y	7:00 a.m. - 6:30 p.m.	8:00 a.m. - 2:30 p.m.
Rochester Hills	OPC Minibuses	City	Y	N	2	Y	8:00 a.m. - 5:00 p.m. (last pick-up at 4:00 p.m.)	Sat. 9:00 a.m. – 4:00 p.m. and Sun. 8:00 a.m. – 1:00 p.m.
Southfield	TOSS – Transportation of Southfield Seniors	City	Y	N	5	N	8:00 a.m. - 4:00 p.m.	Closed
Sterling Heights	Sterling Heights Senior Center Transportation	City	Y	N	0	N	8:30 a.m. - 2:30 p.m.	Closed
Troy	Medi-Go Plus	City	Y	N	2	Y	8:30 a.m. - 4:30 p.m.	Closed
Warren	Center Line & Warren Senior Transportation	City	Y	N	3	N	8:00 a.m.- 3:00 p.m.	Closed