

Nutritional Quality of Restaurant Access through Online Food Delivery Services and Food-Related Behaviors in Hong Kong

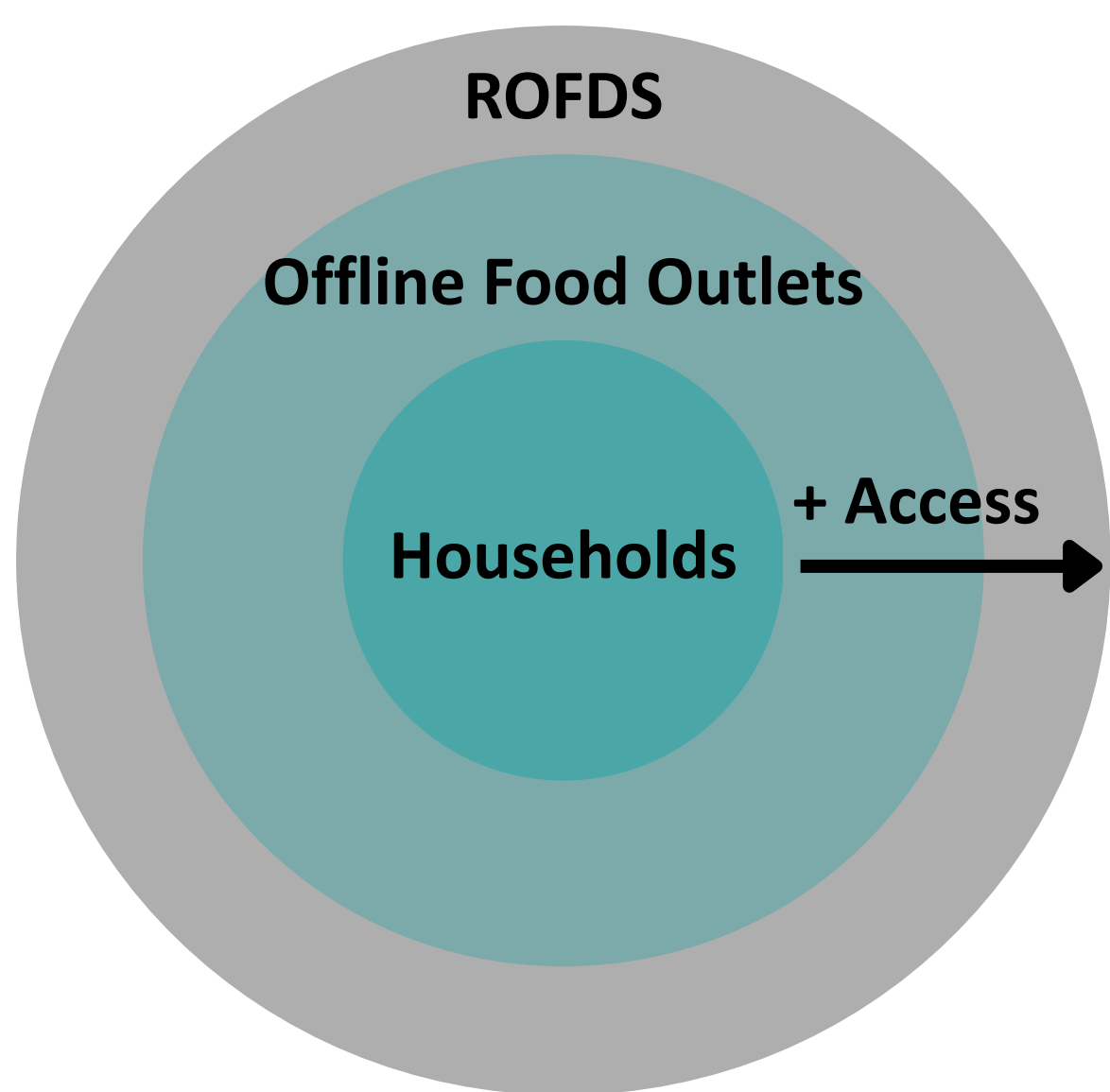
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Why Restaurant Online Food Delivery Services (ROFDS)?

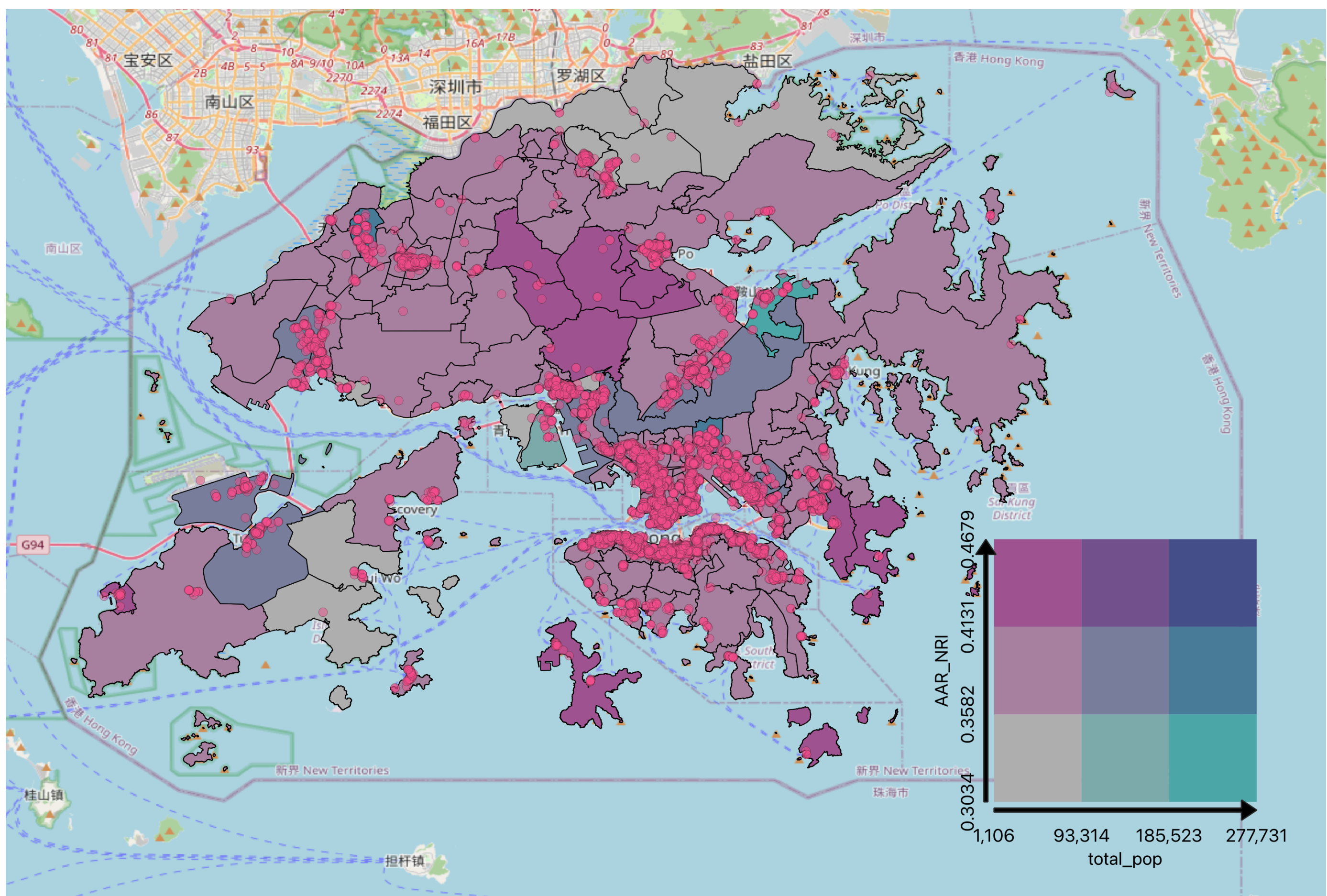


- ROFDS have been found to **expand** food access
- But it's **unclear** if there are **spatial inequities** in the healthiness of the restaurants they expand access to

Study Explored Relationships between:

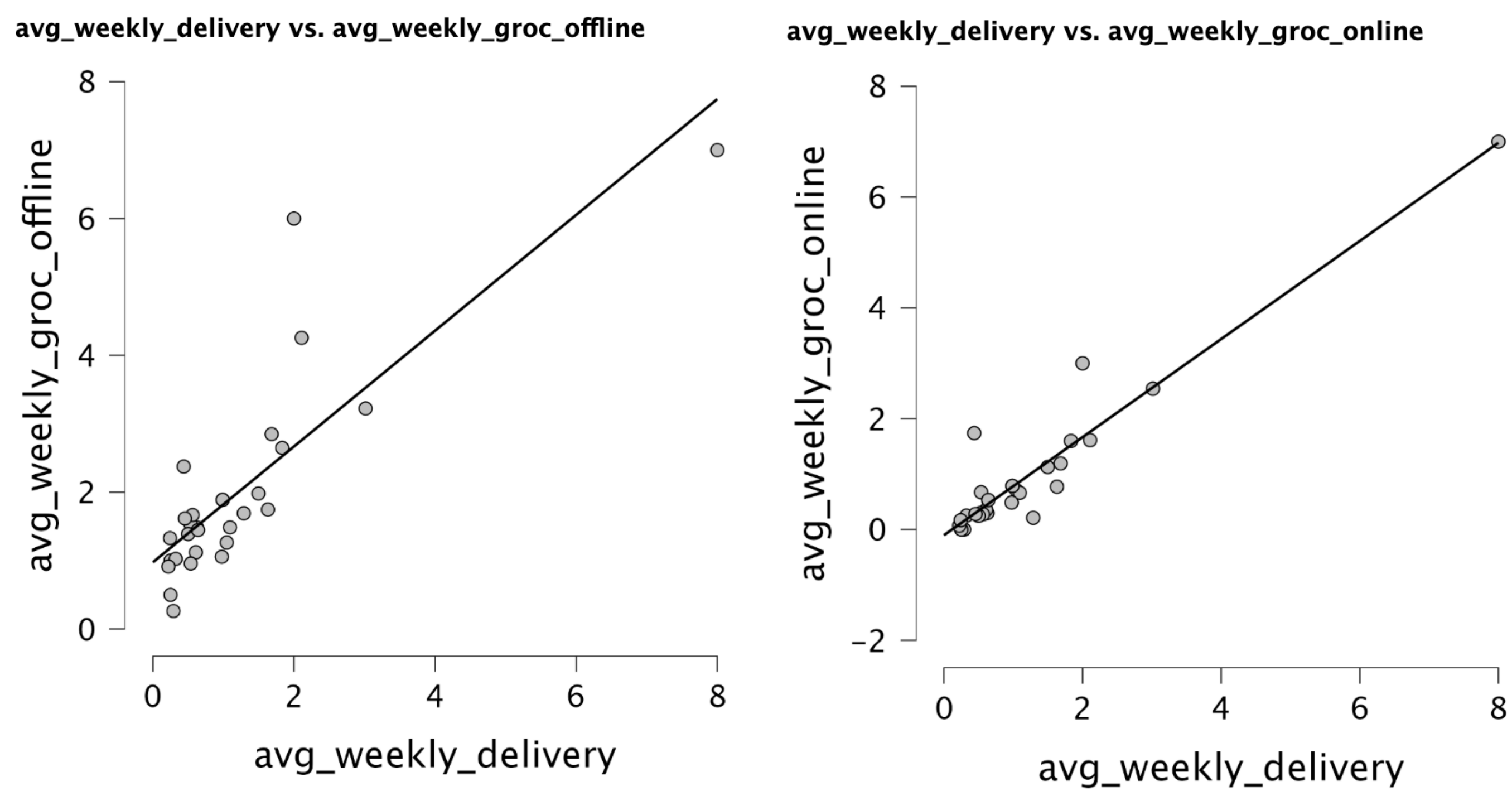
1. Demographic factors and access to (un)healthy restaurants via ROFDS
2. Frequency of ROFDS use, other food-accessing behaviors, and (un)healthiness of accessible restaurants

Differences by Population Count



- ↑ Population ↓ AAR NRI | ↓ Population ↑ AAR NRI
- More populated areas can support more restaurants, so they have access to more restaurants. More restaurants could offer more diversity in healthiness and lower AAR NRI
- Other demographic factors were **not** significant predictors of AAR NRI
 - Diverges from trends in Mainland China, where low-income, young, and large working population areas are exposed to more unhealthy food via ROFDS

Grocery Shopping and ROFDS Use



- Frequent ROFDS use was associated with frequent grocery shopping
- Grocery shopping is considered **healthier** than dining out/ordering food
- These results suggest ROFDS use **may not detract from healthier behaviors**
- There could've been health concerns if frequent users lived in high-risk food and therefore often ordered high-risk food, but the **two were not correlated**

What Should Be Done?

- Consider implementing new programs improving the healthiness of food environments and targeting low-population areas
 - Take similar approach to Less-Salt-and-Sugar Restaurants Scheme: restaurants create healthier menu options
 - Or use financial incentives to encourage new restaurants to open in those areas

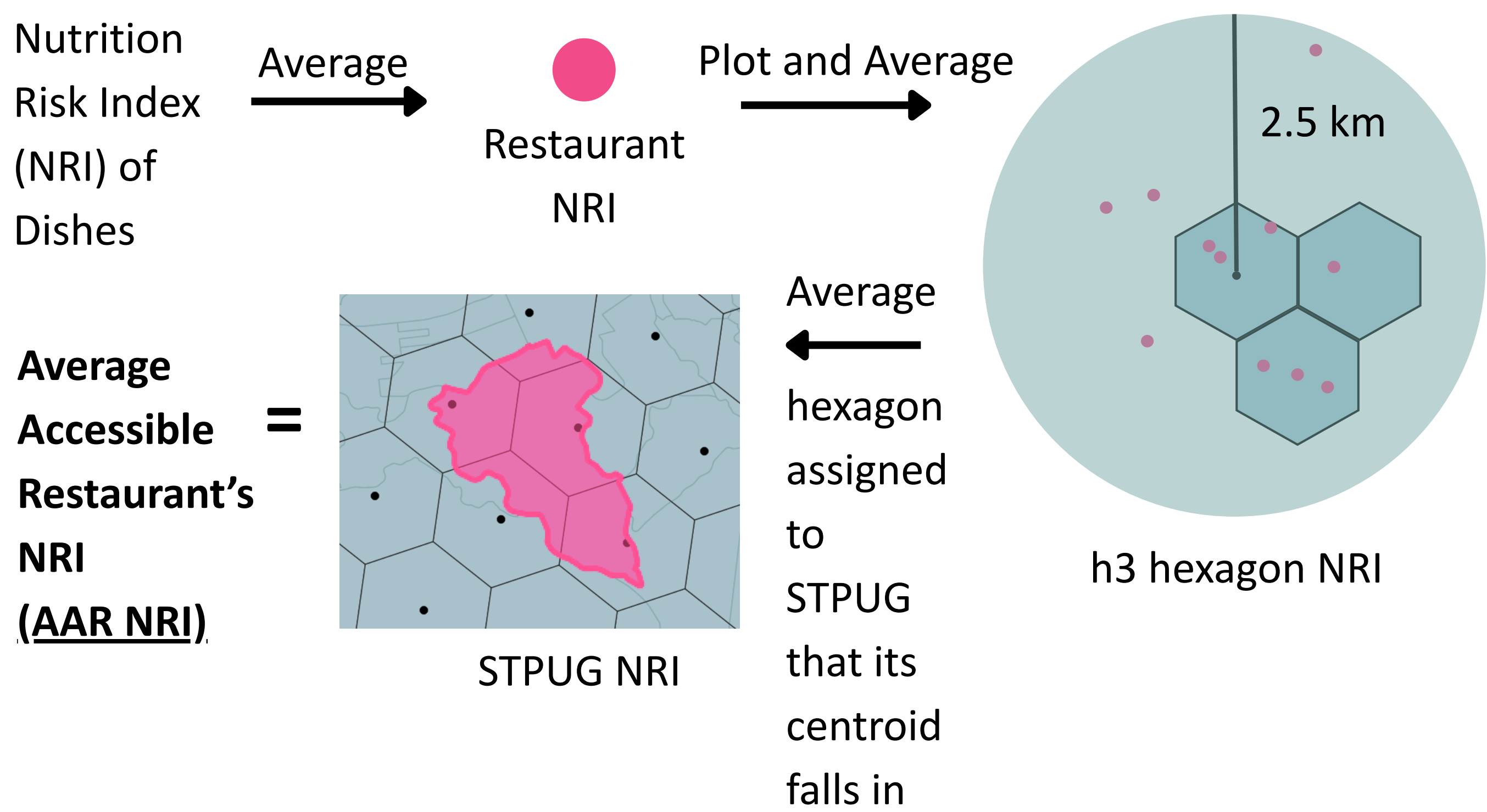
• But!

Access ≠ Use

- Having access to healthier restaurants through ROFDS doesn't guarantee people will pick them
- Health disparities based on income, age, and working population can still exist in the face of relative AAR NRI
- Need to explore ROFDS algorithms and ensure platforms don't disproportionately promote unhealthy restaurants
 - Implement policies that incentivize platforms to increase visibility of and offer price promotions for healthy food options



Determining the Healthiness of Restaurant Environments



Tested Data

Demographic Factors

- Total population
- Median income
- Median age
- Working population proportion

Food Behaviors

- Weekly ROFDS use
- Weekly dining out
- Weekly online grocery shopping
- Weekly offline grocery shopping

Discovered Population-based Disparities

People in **low-population** areas tend to live in **higher-risk** online food environments than people in high-population areas.

Eased Concerns About Frequent ROFDS

Frequent ROFDS users didn't live in higher-risk areas and still grocery shopped often. Harmful effects to health may come from **choice rather than access**.