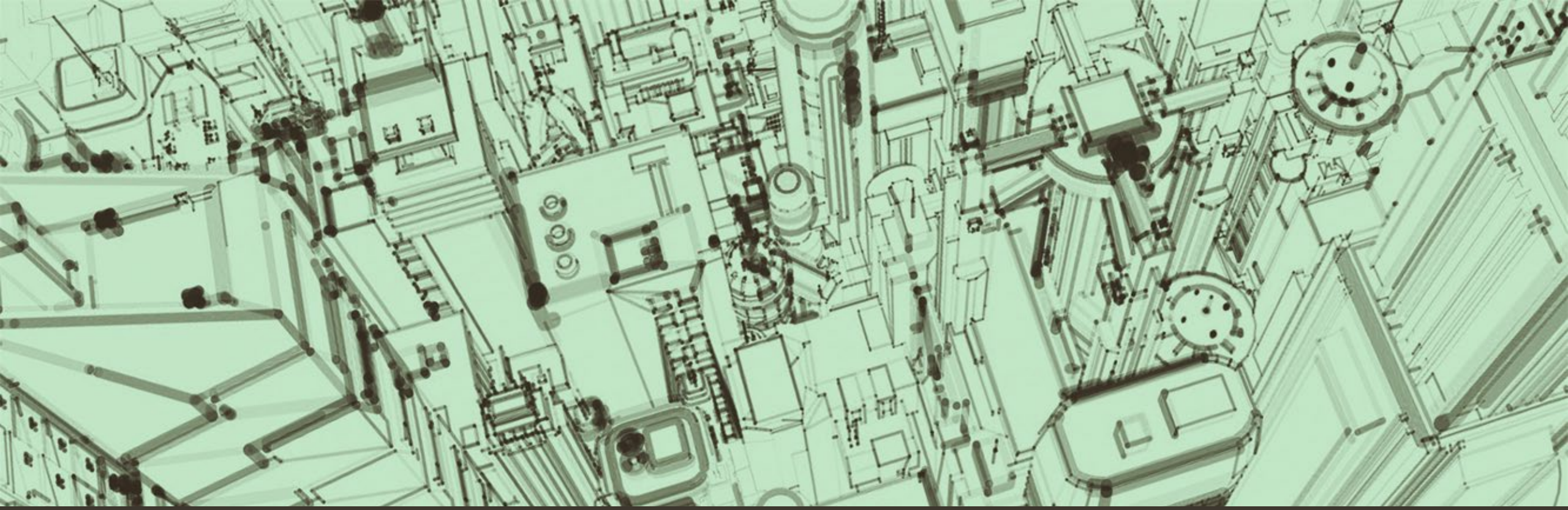

Using CDC PLACES data

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Introduction

- I'm Lloyd Brodsky, a retired solution architect for state Medicaid claims data warehouses
  - Every state has one for its Medicaid program which is an important data source for state public health policy for the poor and medically indigent
- Social determinants of health and health equity are hot topics in health policy now
  - Despite this interest there is a curious lack of use of the two relevant national surveys, the American Community Survey and the CDC's Behavioral Risk Factor Surveillance Survey
  - Two years ago, the CDC introduced PLACES, a statistical model providing small area estimates in popular Census geographies based on BRFSS
  - Being able to join Census to CDC data in small units offers a lot of opportunities to identify challenged communities and evaluate possible interventions through natural experiments

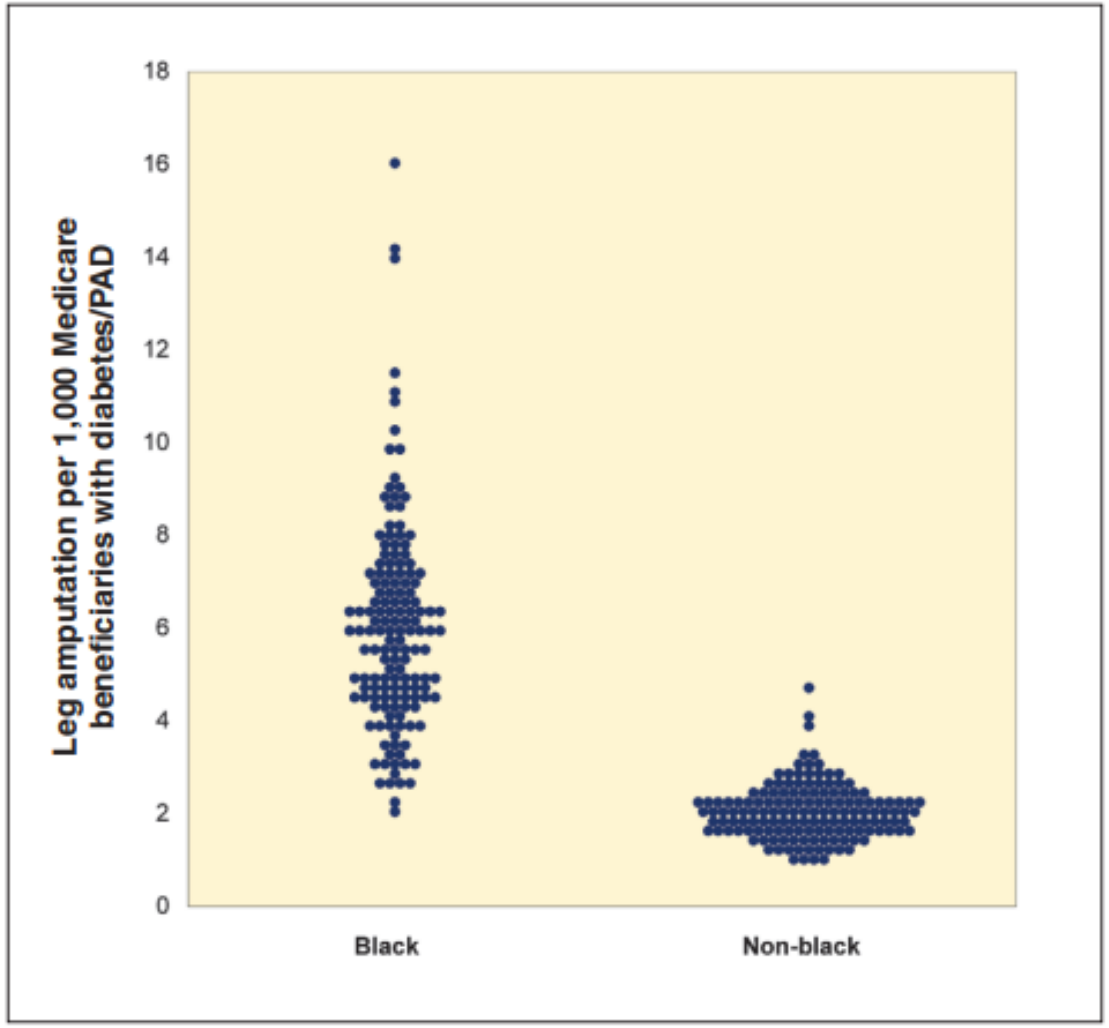
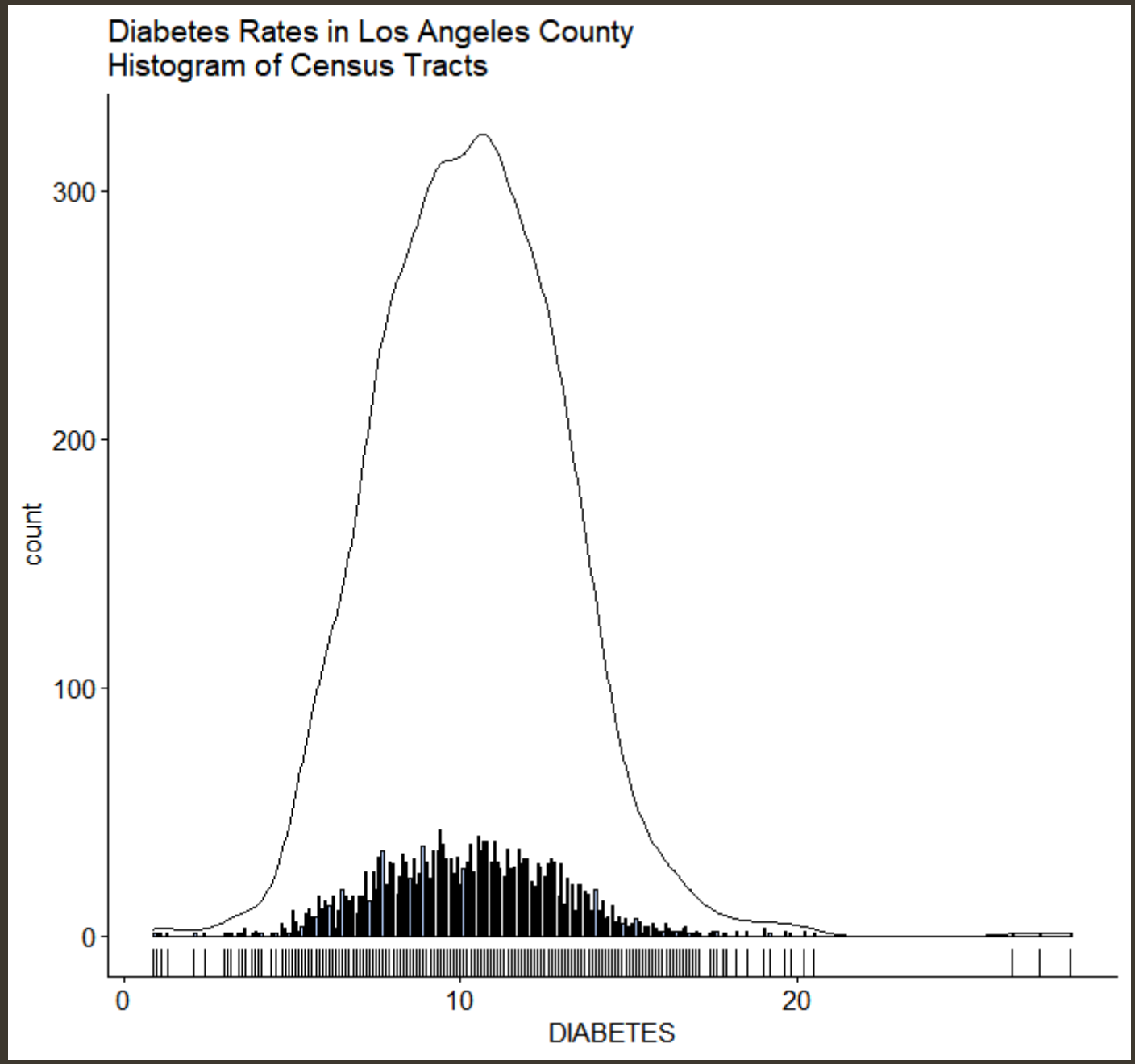


Figure 4. Leg amputation per 1,000 Medicare beneficiaries with diabetes and PAD by race among hospital referral regions (2007-11)

What is CDC Places and Why Should You Care

- CDC PLACES provides small area estimates (tracts, ZCTAs, CDPs) based on BRFSS survey microdata
  - Behavioral Risk Factor Surveillance Survey is a national telephone survey of adults created in the 80's to fill in gaps left by billing and death certificate data
  - Publicly available estimates of medical outcomes (13), prevention activity (9), risky behaviors (4), and general health status (3)
- Because ACS and PLACES are using the same geographies and FIPS codes, you can use an ID from one to look up information in the other
  - You could look up ACS-identified high poverty tracts in PLACES to check for higher levels of chronic disease
  - You could look PLACES-identified low annual checkup tracts to see if educational attainment is low in the ACS
  - Should be a wider range of natural experiments than with prior large area estimates and a better understanding of intra-county variance

PLACES: Local Data for Better Health home page at CDC
Chronic Disease and Health Promotion Data & Indicators Data Portal (cdc.gov)


Diabetes Rates in Los Angeles County
Histogram of Census Tracts
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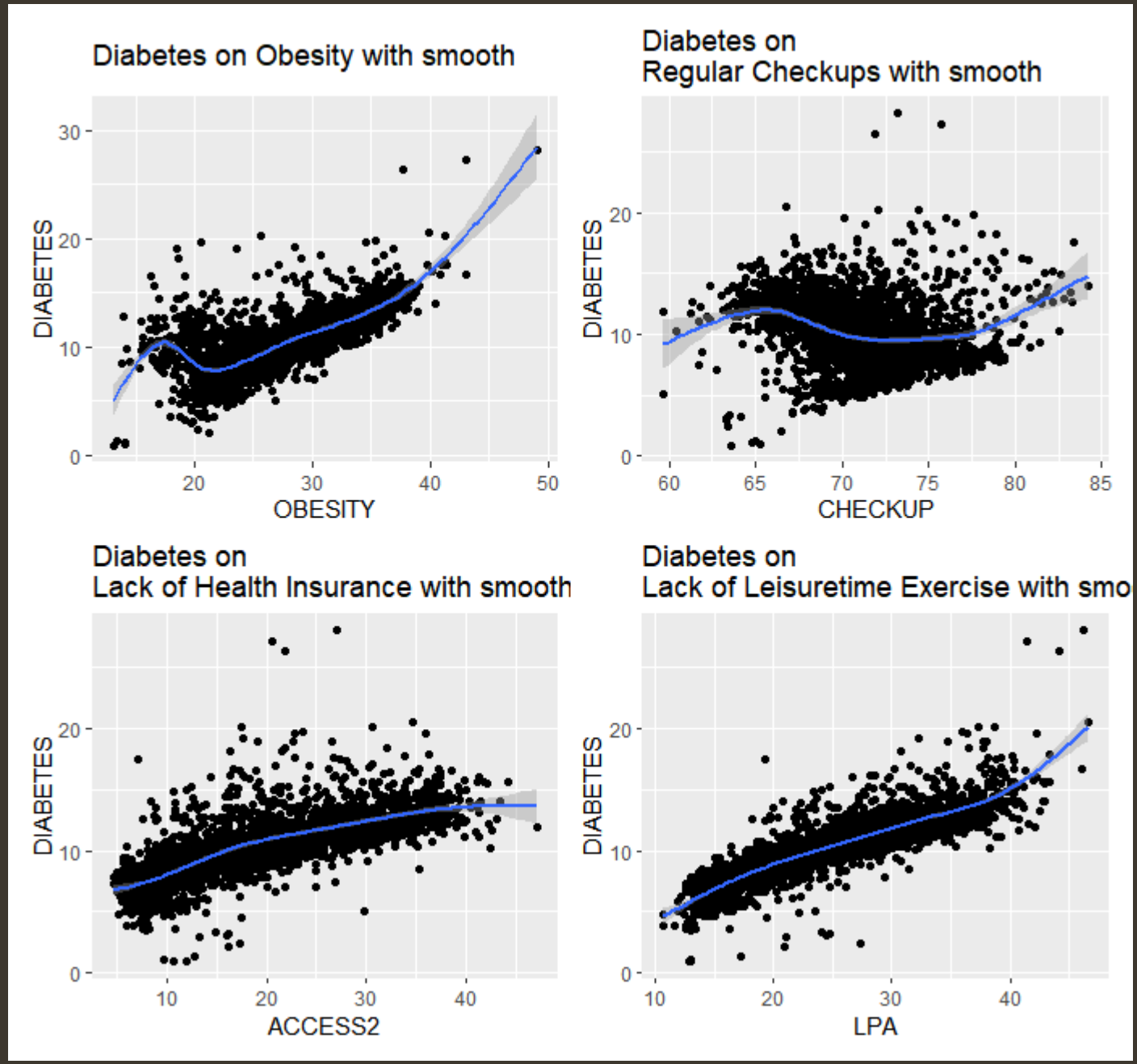
DIABETES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PLACES helps with two intersecting important problems in social determinants of health

- Chronic diseases are very common, very expensive, and very controllable (although incurable)
  - For example, diabetes care costs $237 billion yearly (one-quarter of all health expenditures), affects 11% of the population, is the leading cause of blindness and amputation and is a risk factor for kidney and heart disease.
  - The goal is to avoid expensive and disabling side effects that develop from continued uncontrolled exposure
  - Unfortunately, control involves creating decades-long trust and cooperation between providers and patients
    - As you might expect that often doesn't happen too much of the time
- Public data availability in large urban counties
  - Most public use health information is reported by county, which is unhelpful if counties of interest are diverse and have high population
    - Unfortunately, that describes most urban counties -- 47 counties have more than a million people
  - The county reporting habit disables effective use of the ACS

Health and Economic Benefits of Diabetes Interventions | Power of Prevention (cdc.gov)

Why would I like to see happen?

- Insurers and providers need reporting on underserved persons in their catchment areas
  - They only know about existing “customers
  - PLACES can identify areas with above-average disease prevalence and below-average uptake of mitigating services
  - ACS can tell you about who lives in those neighborhoods
  - Providers and payers can use attributes both as the denominator in outreach measures, something that does not currently happen
- Local risk information for the public
  - People care more about what happens in their own neighborhoods
  - Sell people in high-risk neighborhoods on their risk – how much worse (or better) is my neighborhood than the average

Access to PLACES data

- PLACES Main Web Page at CDC
- PLACES dataset list page on CDC public use data portal (Socrata system)
- ArcGIS-powered interactive mapping of PLACES data at ESRI (arcgis.com)
- PLACES Data Dictionary on CDC public use data portal (Socrata system)