



Geography and Diabetes

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Dr. Wei-An (Andy) Lee

Director, Diabetes and Metabolism Clinic

LAC+USC Medical Center

Keck Medical Center of USC

Division of Endocrinology and Metabolism

weilee@usc.edu

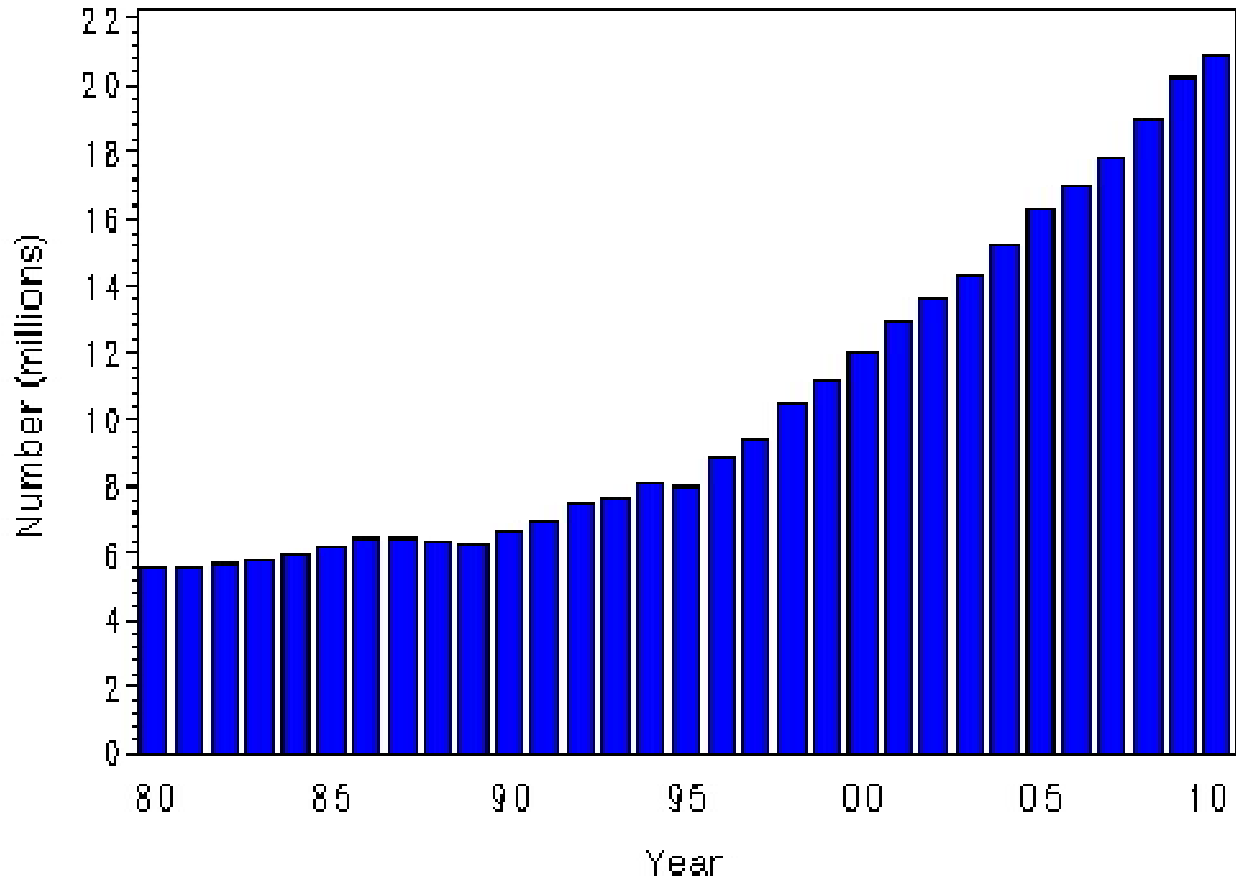


- Can spatial technology provide clinically meaningful information that can influence health outcomes?



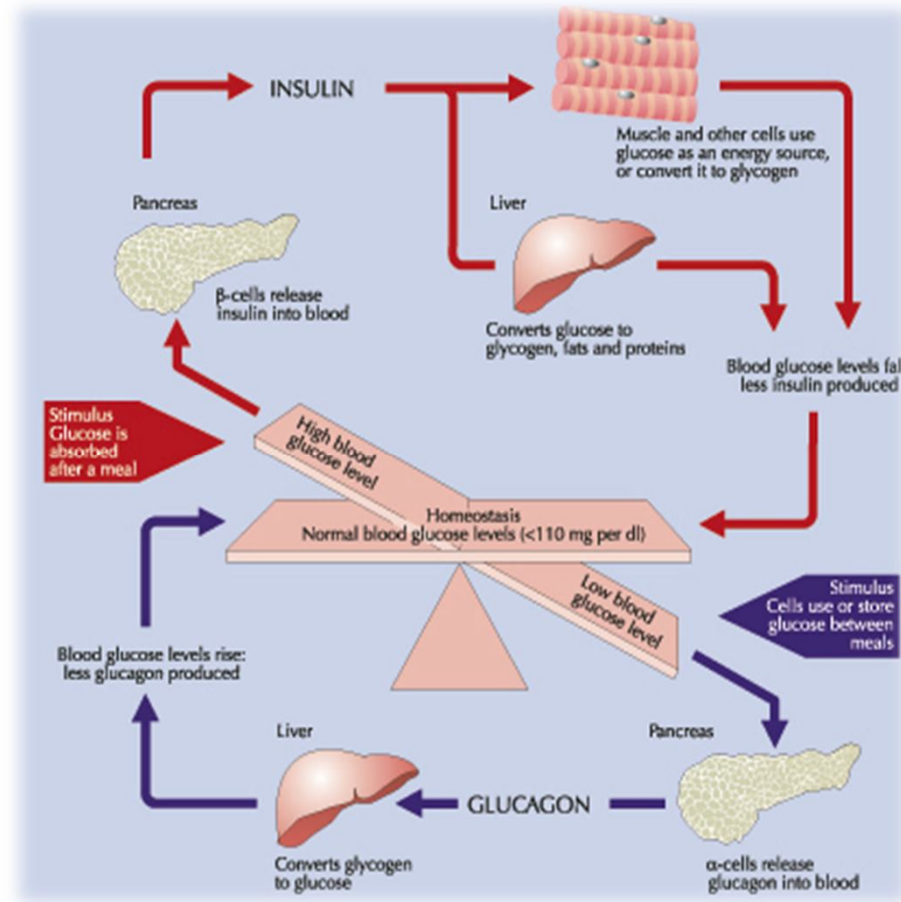
Number (in Millions) of Civilian, Noninstitutionalized Adults with Diagnosed Diabetes, United States, 1980–2010

From 1980 through 2010, the number of U.S. adults aged 18 years or older with diagnosed diabetes has more than tripled (from 5.5 million to 20.7 million).





Diabetes





MEDICATIONS*										
	Metformin (MET)	DPP4 Inhibitor	GLP-1 Agonist (Incretin Mimetic)	Sulfonylurea (SU)	Glinide**	Thiazolidinedione (TZD)	Colesevelam	Alpha-glucosidase inhibitor (AGI)	Insulin	Pramlintide
BENEFITS										
Postprandial Glucose (PPG) - lowering	Mild	Moderate	Moderate to Marked	Moderate	Moderate	Mild	Mild	Moderate	Moderate to Marked	Moderate to Marked
Fasting glucose (FPG) - lowering	Moderate	Mild	Mild	Moderate	Mild	Moderate	Mild	Neutral	Moderate to Marked	Mild
Nonalcoholic fatty liver disease (NAFLD)	Mild	Neutral	Mild	Neutral	Neutral	Moderate	Neutral	Neutral	Neutral	Neutral
RISKS										
Hypoglycemia	Neutral	Neutral	Neutral	Moderate	Mild	Neutral	Neutral	Neutral	Moderate to Severe	Neutral
Gastrointestinal Symptoms	Moderate	Neutral	Moderate	Neutral	Neutral	Neutral	Moderate	Moderate	Neutral	Moderate
Risk of use with renal insufficiency	Severe	Reduce Dosage	Moderate	Moderate	Neutral	Mild	Neutral	Neutral	Moderate	Unknown
Contraindicated in Liver Failure or Predisposition to Lactic Acidosis	Severe	Neutral	Neutral	Moderate	Moderate	Moderate	Neutral	Neutral	Neutral	Neutral
Heart failure / Edema	Use with caution in CHF	Neutral	Neutral	Neutral	Neutral	Mild / Moderate Contraindicated in class 3,4 CHF	Neutral	Neutral	Neutral unless with TZD	Neutral
Weight Gain	Benefit	Neutral	Benefit	Mild	Mild	Moderate	Neutral	Neutral	Mild to Moderate	Benefit
Fractures	Neutral	Neutral	Neutral	Neutral	Neutral	Moderate	Neutral	Neutral	Neutral	Neutral
Drug-Drug interactions	Neutral	Neutral	Neutral	Moderate	Moderate	Neutral	Neutral	Neutral	Neutral	Neutral





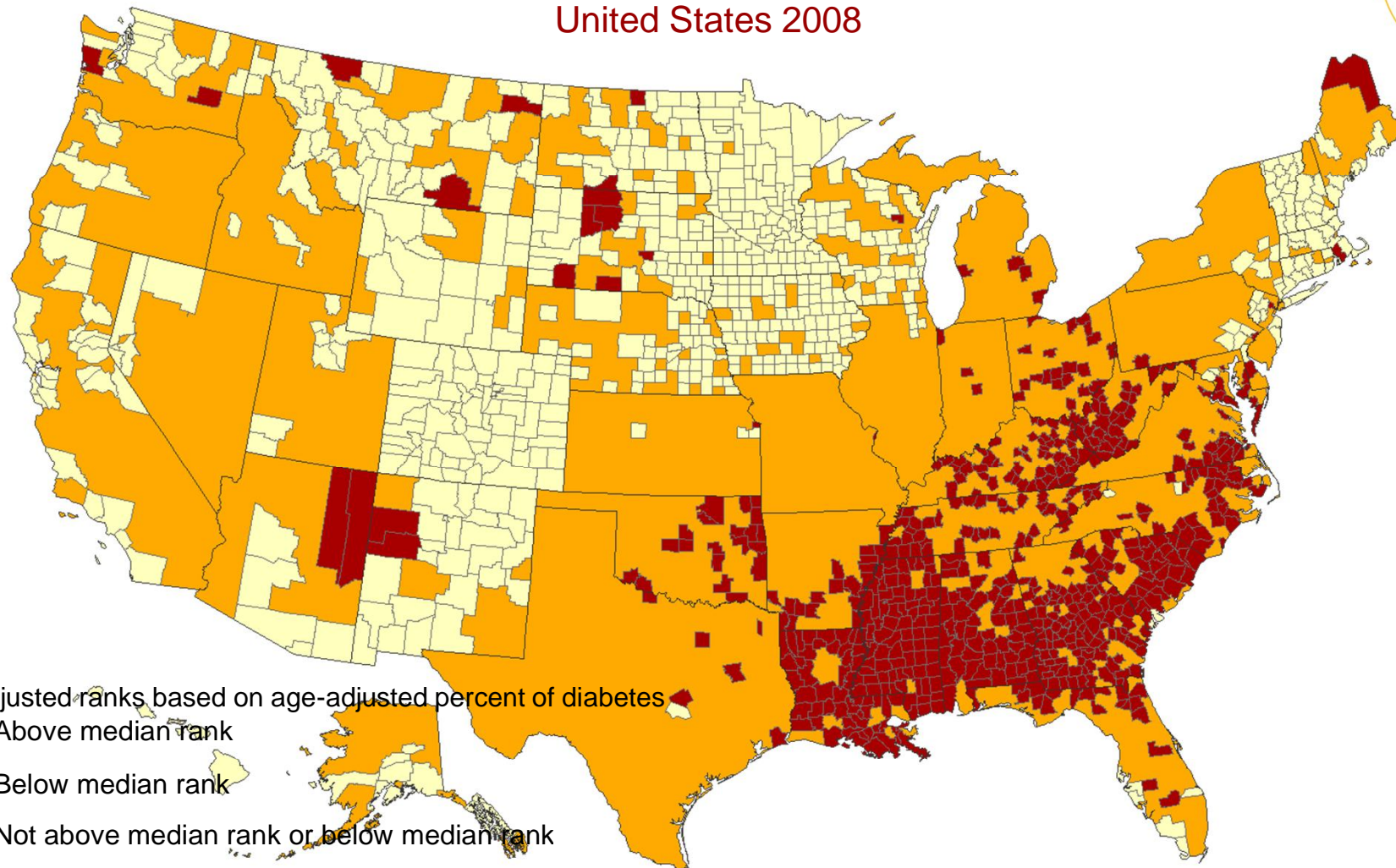
The elephant in the room







Residence
Violence
Fast food
Exercise
Access to transit
Emotional support
Immigration
Education
Etc...

County-level Estimates of Diagnosed Diabetes among Adults aged ≥ 20 years: United States 2008



Age-adjusted ranks based on age-adjusted percent of diabetes

 Above median rank

 Below median rank

 Not above median rank or below median rank



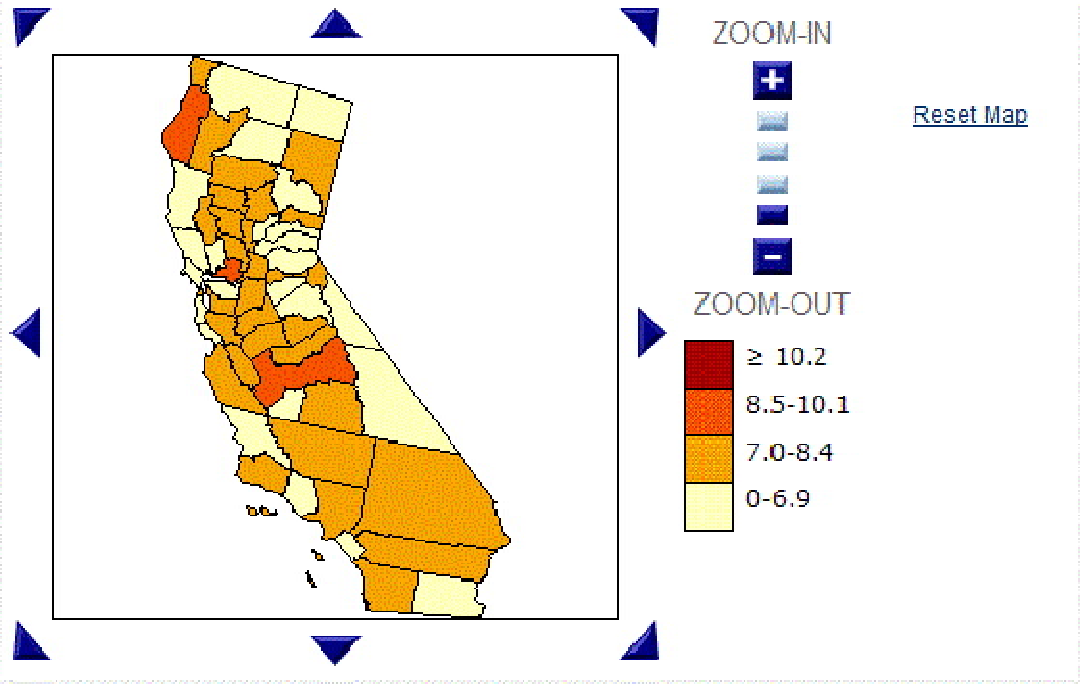
County Level Estimates of Diagnosed Diabetes — State Maps

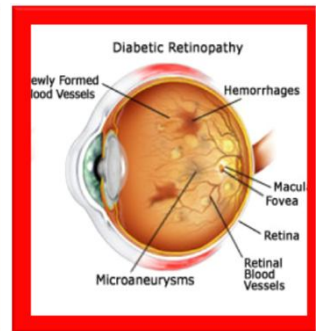
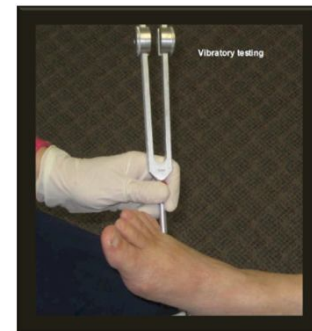
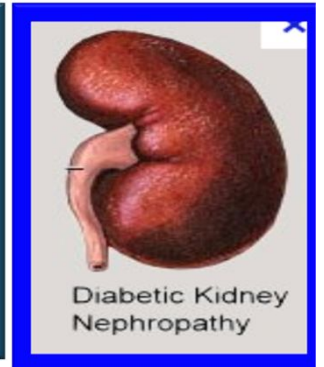
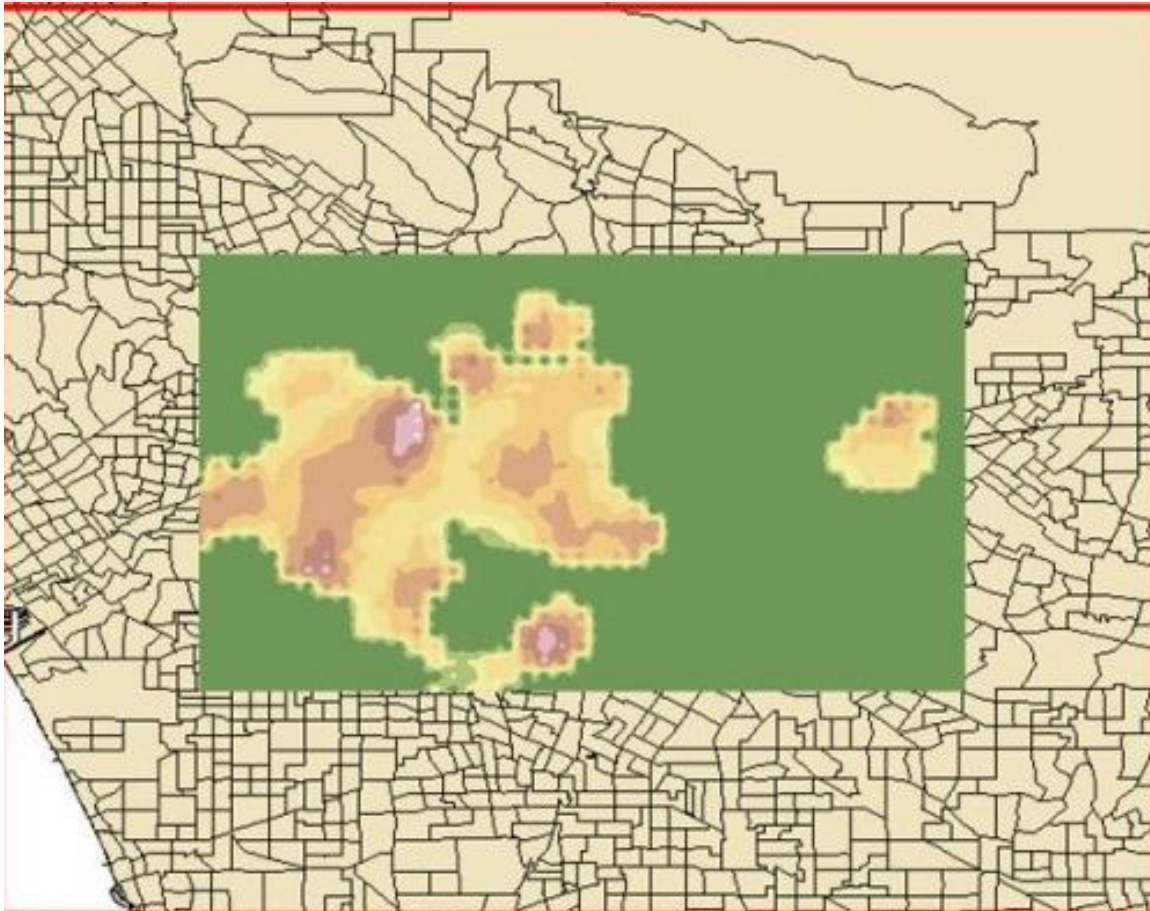
Indicator: Diagnosed Diabetes | State: California | Year: 2008

Data Type: Age-Adjusted % of Adults | Classification: Trends | GO

Options & Tools:
[Data Dictionary](#)
[Download data table \(XLS\)](#)
[Methodology](#)

2008 Age-Adjusted Estimates of the Percentage of Adults[†] with Diagnosed Diabetes in California

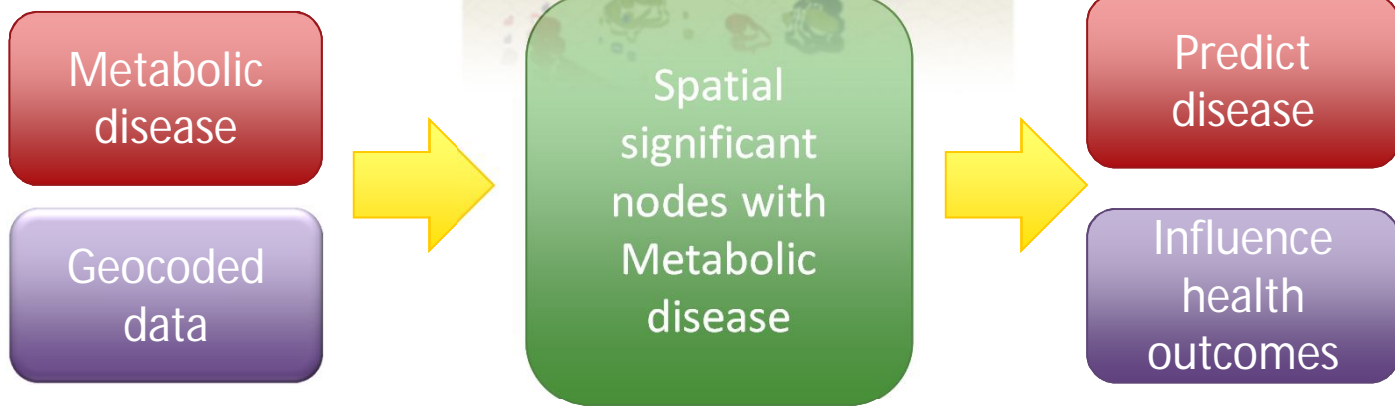
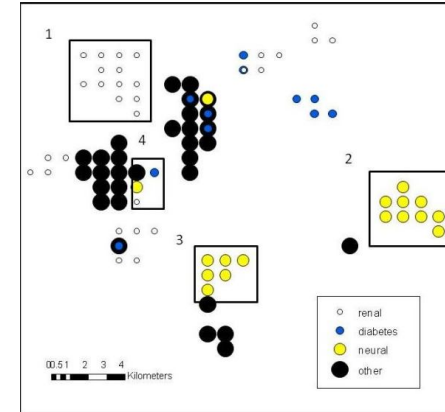
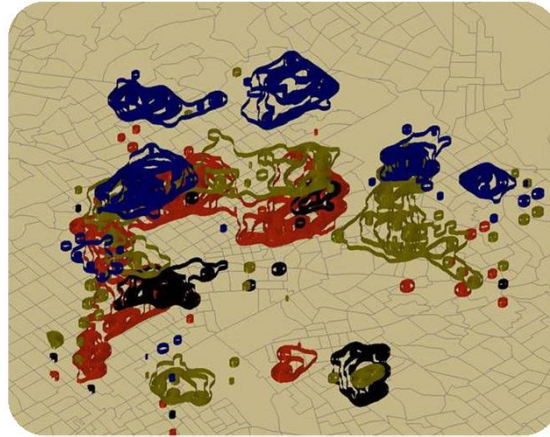




Curtis AJ, Lee WA. Int J Health Geogr. 2010 Aug 27;9:43.



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