**EJ & Service Areas**

Last updated: 8/7/23

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| Legend | Wes |
| AR |
| Tina |
| complete |

**Section 1: Steps to Completion**

1. Create folder
2. Github repo (6/16/23)
3. download data
   * County shapefiles
   * Zipcodes <- UCMR data
   * EPIC data
   * SYR 4 & SYR 3 & SYR 2
   * UCMR3 PFAS Data & PFAS Analytic Tools
   * SDWIS or Maura Allaire's data
4. Running EJSCREENbatch over each service area types x2
   * Ran over all EPIC boundaries
   * Run for counties and zipcodes
5. Generate drinking water indicators & then merge to 4.
   * PFAS (UCMR 3 & 5 and PFAS Analytic Tools)
   * Total Coliforms (SYR 3 & 4)
   * TTHM and HAA5 (SYR 3 & 4)
   * Health-based violations
   * Lead action level exceedances
6. Create paper shell
7. Create aggregate drinking water statistics for each demographic group
   * Non-hispanic white, people of color, Below 2X PL, Above 2X PL
   * (optional) Black, hispanic, Asian, PI

For each indicator i and demographic category d, and water system p:

1. Create relative risk ratios for each indicator.
   * Non-hispanic White vs. POC
   * Below 2x Poverty Line vs. Above 2x Poverty Line
2. Output the tables
3. Brainstorm figures
   * HB violations at the census tract level
   * Lead exceedances at the census tract level
4. Brainstorm journal outlets and write the paper.
5. NEW: Compare how “disadvantaged water system” is defined differently depending on the service boundary being used.

**Section 2: Significant Updates from Last Meeting**

Significant updates (8/7/23):

* Almost all data is now present. Water indicators and boundaries are all there. Need to join PWSIDs to counties.
* Will Wheeler’s idea on how to update the paper.
* Discuss different possible outcomes.
  + Adjust samples to be %above threshold?
  + Two EJSCREEN indicators being scoped out (action level exceedences of lead and health based violations over the past 5 years + duration out of compliance).

Significant updates (8/21/23)

* Discussed whether to use primary county or all county for county-level service boundaries
* Discussed relative risk ratios and the construction of the demographic average indicator

**Section 3: Questions to Answer**

Questions

* National vs. state vs. region?
  + Subset that is the perfect boundaries.
  + Separately summarizing EPIC's tier 1, tier 2, tier 3
* What is the disparity index?
  + Relative risk: simplify and keep to one number for POC and NH-White
  + Appendix tables for additional comparisons across groups
* What are the most important types of outcomes?
  + Health based violations, etc.
* Should we adjust the samples so they’re % above a threshold as in Keiser and Shapiro?
* How does population density, region, PDW density, etc., impact accuracy and differences we observe across water system boundary types?

**Section 4: Possible Output Tables**

