

# Partnering for **Vaccine Equity**





- Please stay on mute unless you are speaking.
- Use the Chat feature! Introduce yourself, submit a question for the speakers.
- Materials from this session will be shared broadly with the Learning Community through our website's library and the Adult Vax Program listserv
- **Technical problems?** Email [vaxequitylearning@urban.org](mailto:vaxequitylearning@urban.org)

# Today's Facilitators



**Alena Stern**  
Associate Director of Data  
Science  
Urban Institute



**Gabe Morrison**  
Data Scientist  
Urban Institute



# Introducing the Spatial Equity Data Tool

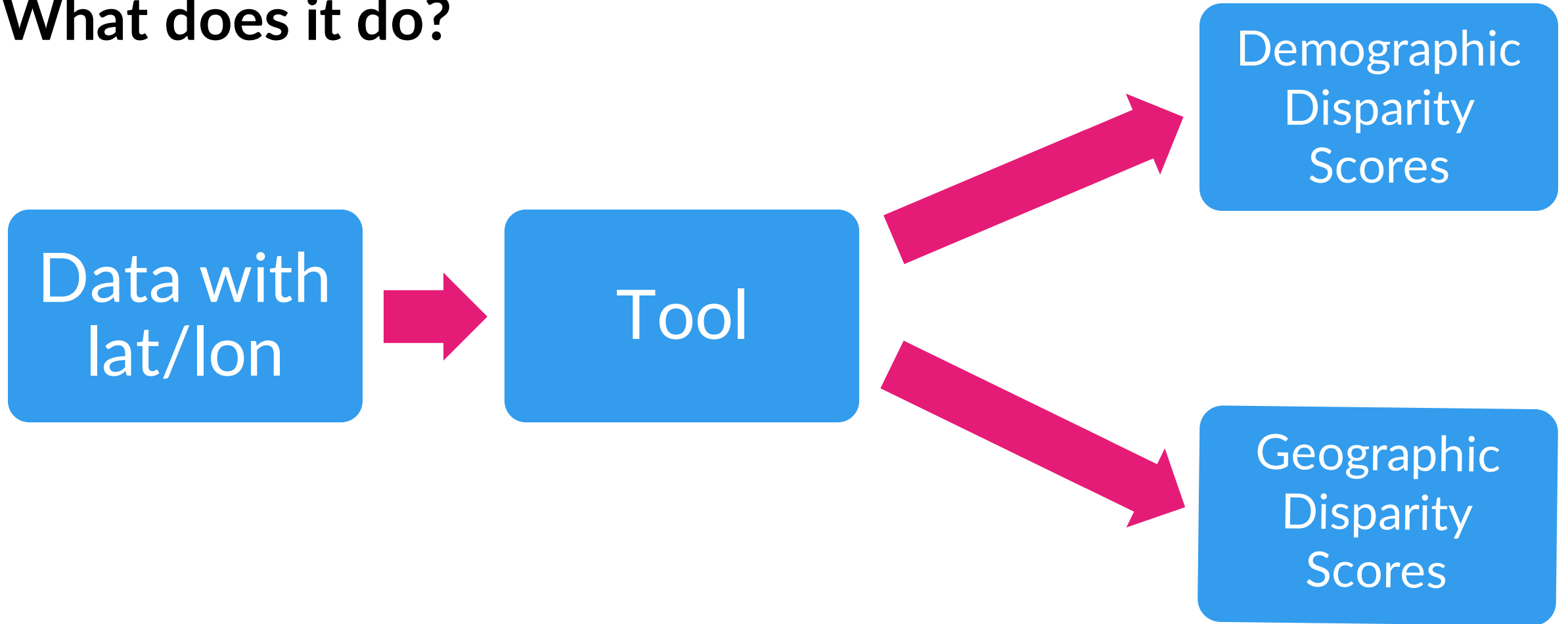
Alena Stern & Gabe Morrison

# Why do we need equity tools?

- Many organizations committing to center equity in strategy, policy, and program decisions
- But there are no standardized definitions of what equity means or how to measure it
- Absent clear definitions and tools, equity analysis can be time and resource intensive

# Spatial Equity Data Tool

# What does it do?



# How can you use the tool?

- Performing standardized equity analyses just became easier!



# How can you use the tool?

- Performing standardized equity analyses just became easier!
- Compare across time

Your data from 2021  
2020  
2019

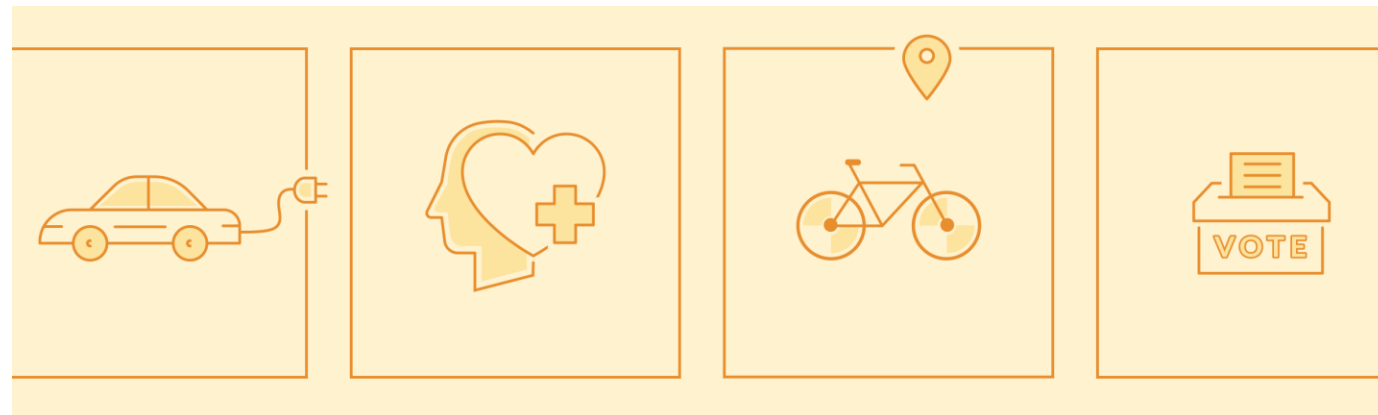
# How can you use the tool?

- Performing standardized equity analyses just became easier!
- Compare across time, geographies

Your data from [Miami-Dade County, FL](#)  
[Broward County, FL](#)  
[Pinellas County, FL](#)

# How can you use the tool?

- Performing standardized equity analyses just became easier!
- Compare across time, geographies, and programs



# How can you use the tool?

- Performing standardized equity analyses just became easier!
  - Compare across time, geographies, and programs
- It's free, saves you time, and is reproducible

# What can the tool be used for?

- Measure equity in allocation of place-based programs (e.g. vaccine clinics)
- Examine representativeness of program participants
- Identify areas for future investment (e.g. identify underserved communities and areas)
- Analyze progress towards equity goals over time

# How has this tool been used?

- Nonprofit in Marin County analyzed disparities in child care center locations
- Residents used to assess equity in building permit approvals in Chicago
- The Bloomington Pedestrian and Bicycle Safety Commission used to analyze equity in sidewalk funding allocations
- City of Los Angeles Department of Street Lighting used to allocate funding for new electric vehicle charging stations

# How has this tool been used?



rashiq @rashiq · Oct 22, 2020



I reverse engineered mcdonald's internal api and I'm currently placing an order worth \$18,752 every minute at every mcdonald's in the US to figure out which locations have a broken ice cream machine

**is the mcdonald's  
ice cream machine broken?**

mcbroken  
is the mcdonald's ice cream machine broken?  
[mcbroken.com](https://mcbroken.com)

846

13.4K

35.4K



# How has this tool been used?

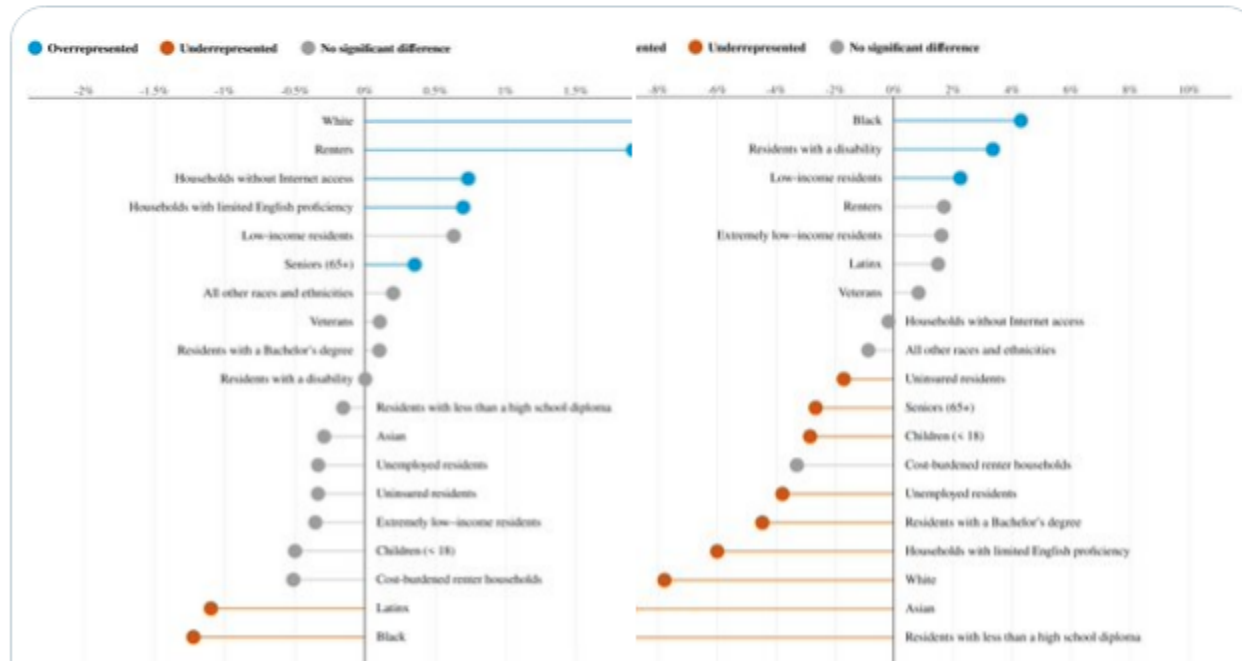


Mark Stosberg  
@MarkStosberg

...

Replying to @rashiq

I ran the McBroken data through the Spatial Equity Data tool. [apps.urban.org/features/equit...](https://apps.urban.org/features/equit...) It found McDonalds are slightly overrepresented in white areas (first image) while locations with broken ice cream machines skew Black and low-income. (second image)





# Live Demo: DC COVID-19 Testing Facilities

# Limitations

- Can't tell users **why** certain areas / groups are over/underrepresented
- Simplified measure of access to resources
- Only allows national, state, county, and city level datasets (for cities over 50,000 people)
- Built in baseline datasets may not match all use cases\*

## Questions the Spatial Equity Tool **can** answer

- Compared to the population distribution in a geography:
  - Are certain neighborhoods/demographic groups over/underrepresented in my data?
  - How do these disparities compare across time, across geographies, or across different datasets?
  - Are these results statistically significant?

## Questions the Spatial Equity Tool **can't** answer

- *Why* are certain areas / demographic groups overrepresented in my data?
- Is the quality of the data equal across my geography?
- Is the absolute level of access good?
- Are the data points equally accessible within the geography?

Questions/Feedback?

# Discussion Questions

- How do you currently incorporate data and equity into your work?
- How would you use a tool like this in your own work?
- What data would you use with the tool?

# Challenges to Using the Tool

## Obstacles to using the tool:

- You need **access** to geographic point data
- May need **technical capacity** to download/create geographic data
- May need **context** to understand why under/over-representation exists and how to address it



# Access

## Obstacles: Access to data

- Main prerequisite to the tool is access to point level data (i.e. datasets with latitude/longitude)
- If you have data with addresses or census tracts, you're halfway there!

# Technical Capacity

## Obstacles: Technical Capacity

- If you have address data, you need to geocode data to get latitudes/longitudes
  - For more information: [Data@Urban blog post](#)
- If you have census tract data, you need to get centroid of the tract as latitudes/longitudes
  - [Missouri Census Data Center Geocorr](#)

# Context

# Obstacles: Context

- Key question: Why are there disparities in your data?
- Potential reasons include:
  - Data collection issues
  - Program implementation issues
  - Historical inequities
  - Mismatched baseline datasets

# Obstacles: Context

- Reminder: Tool is one part of a larger decision-making process including lived experiences, and community input
- Using Tool to facilitate community engagement:
  - Understanding community priorities + collaborating to design strategy
  - Create environment where all feel comfortable sharing (e.g. Data Walks)

# Ideas for Future Work

- Incorporate measures of accessibility (e.g. travel time)
- Add additional geographies (e.g. regional or metro area analysis)
- Incorporate additional baseline datasets
- Coming later this year: public API!



# Discussion Questions

- What additional resources/support would your organization need to use a tool like this for strategy development?
- What additional features would be most useful to your organizations if added to the tool?

# Want our Code or Data?

- Everything is open source!
  - **Code:** <https://github.com/UrbanInstitute/ui-equity-tool>
  - **Tool:** <https://apps.urban.org/features/equity-data-tool/>
  - **Resources:** [FAQ](#), [Technical Appendix](#), [Case Study](#)
- Happy to advise/help folks expand our methodology

**Alena Stern**

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**Gabe Morrison**

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# Satisfaction Poll & Upcoming Events

## Upcoming Learning Events:

*Register NOW:*

- March 22<sup>nd</sup>, 12 PM – 2 PM EST: [APHA Abstracts Co-Working Session](#)

**Full events calendar available on our website:**

[vaccineequity.urban.org](https://vaccineequity.urban.org)

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