THE EFFECTS OF NEIGHBORHOOD CHANGE ON HEALTH:
A JOINT MEETING OF THE HCTF AND FIT CITY PHL

November 20, 2019
WELCOMING & OPENING REMARKS

• Barry Seymour, Executive Director, DVRPC
• Dr. Valerie Arkoosh, Chair, Montgomery County Board of Commissioners, HCTF Co-Chair
• Keri Salerno, Senior Director of Economic Inclusion, Public Health Management Corporation, FitCityPHL Chair
KEYNOTE PRESENTATIONS

The State of Residential Development across Philadelphia
Anne Fadullon, Director of Planning and Development, City of Philadelphia

The Impact of Residential Displacement on Healthcare Access and Mental Health among Original Residents of Gentrifying Neighborhoods in New York City
Sungwoo Lim, DrPH, MS, Director of Research and Evaluation, Bureau of Epidemiology Services, Division of Epidemiology, New York City Department of Health and Mental Hygiene
Anne Fadullon
Director of Planning and Development

Residential Development Across Philadelphia

Healthy Communities Task Force & Fit City PHL
November 20, 2019
Philadelphia Market Conditions

Consecutive Years of Population Growth: 12

Millennial Residents: 26%

New Jobs Since 2009 (Best job growth since WW II): 71,000

New Housing Units in 2018: 12,640
2016: there are roughly 125,000 severely cost-burdened renters and owners in Philadelphia.

- Over 88% of homes were built prior to 1980
- 29,000* residential properties below average exterior condition
- 31,000* housing units without complete kitchens
- 27,000* housing units without complete plumbing facilities
- 11,000* exterior residential property violations

- 25% living in poverty
- 24,000 eviction filings in 2017
- 42,900 Housing Authority wait list
- 5,600 experiencing homelessness

*Estimated number
City of Philadelphia and the Philadelphia Housing Authority

Assessment of Fair Housing

December 23, 2016
## 10-Year Housing Goals

<table>
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<th>Housing Type</th>
<th>AMI Range</th>
<th>Income</th>
<th>Owner</th>
<th>Renter</th>
<th>Total</th>
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<td></td>
<td>Preserved&lt;sup&gt;5&lt;/sup&gt;</td>
<td>New&lt;sup&gt;6&lt;/sup&gt;</td>
<td>Preserved&lt;sup&gt;5&lt;/sup&gt;</td>
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<tr>
<td>Homeless</td>
<td>&lt;30%</td>
<td>$0-25k</td>
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<td>18,000</td>
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<td>50-80%</td>
<td>$42-67k</td>
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<td>$67-100k</td>
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<td>Market-Rate</td>
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<td>$100k+</td>
<td>7,500</td>
<td>7,500</td>
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<tr>
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<td></td>
<td></td>
<td>29,500</td>
<td>17,500</td>
<td>34,000</td>
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<td></td>
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Key Themes

• Housing our Most Vulnerable Residents
• Preserving and Protecting Long-Term Affordability
• Pathways to Sustainable Homeownership and Wealth Creation
• Encouraging Equitable Growth without Displacement
• Encouraging Efficient and Innovative Development and Rehabilitation to Promote Greater Housing Choice
House our Most Vulnerable Residents
Preserve & Protect Long-Term Affordability
Pathways to Sustainable Homeownership

Sponsored by the Philadelphia Redevelopment Authority

Philadelphia Neighborhood Home Preservation Loan Program
Equitable Growth Without Displacement
Innovation for Greater Housing Choice
Implementing the Plan
Resources 2019-2028

**New Resources:**
- Federal: $0
- Local: $186,000,000
- State: $0
- Private/Leverage: $395,000,000

10-Year Total: $581,000,000

**Current Resources:**
- Federal: $4,194,500,000
- Local: $749,000,000
- State: $92,000,000
- Private/Leverage: $560,000,000

10-Year Total: $6,176,500,000
We’re Doing It!

Home Repair Loan Program

First-time Homebuyer Assistance

Funding for Pilot Programs
Thank you!

Questions?
Assessing the impact of displacement on emergency department visits and hospitalizations among residents of gentrifying neighborhoods

November 20, 2019

Sungwoo Lim, Pui Ying Chan, Sarah Walters, Gretchen Culp, Mary Huynh, and Hannah Gould
Background

• Displacement is associated with adverse health outcomes

• One of the possible drivers of displacement is gentrification
  – Gentrification is a process of urban development whereby resource-deprived neighborhoods are revitalized via influx of affluent, educated residents

• However, evidence from systematic, quantitative assessments is limited
Study questions

1. Does displacement to poor, non-gentrifying neighborhoods increase difficulty in accessing health care and therefore increase hospital use?

2. Does displacement disrupt existing social ties, resulting in an increased level of stress and mental health (MH) issues and therefore increased MH-related ED visits/hospitalizations?
Methods
Identifying gentrifying neighborhoods

• Neighborhood (PUMA) level variables from 2005-2014 American Community Survey
  – % of college graduate in 2005
  – Median household income in 2005
  – Median rental price in 2005
  – Growth in each of the above 3 variables from 2005 to 2014
• Principal component analysis
• Gentrifying neighborhoods: low 2005 values and fast growth
• Poor, non-gentrifying neighborhoods: low 2005 values and slow growth
Gentrifying neighborhoods
Gentrifying Neighborhood
- Bedford-Stuyvesant
- Bushwick
- Central Harlem
- Chinatown & Lower East Side
- Crown Heights North & Prospect Heights
- East Harlem
- Greenpoint & Williamsburg
- Hamilton Heights & West Harlem
Poor, non-gentrifying neighborhoods

Bureau of Epidemiology Services
Non-gentrifying Neighborhood

- Bedford Park, Fordham North & Norwood
- Belmont, Crotona Park East & East Tremont
- Brownsville & Ocean Hill
- Concourse, Highbridge & Mount Eden
- East New York & Starrett City
- Hunts Point, Longwood & Melrose
- Morris Heights & Fordham South
Data and Cohort Selection

• Data: 2006-2014 Statewide Planning and Research Cooperative System (SPARCS) data

• Cohort: adult (18+) with least one ED visit or one hospitalization and geocodable address every 2 years since 2006

• Excluded individuals with > 3 unique addresses per year before baseline (<1%)
  – Possible homeless people & people sharing the same identifier
Data and Cohort Selection (2)

Displaced (N = 3,032): lived in gentrifying neighborhoods in 2006 and has ever moved to a poor, non-gentrifying neighborhood

Control (N = 9,941): lived in gentrifying neighborhoods throughout

Sensitivity analysis (N = 10,300): lived in poor, non-gentrifying neighborhoods throughout
Variables

• Baseline (time point of displacement)
  – Displaced: midpoint between visit with the first “displacement” and the previous visit
  – Control: average baseline date of displaced group (12/29/2009)

• Outcomes
  – Rates of ED visits, rates of hospitalizations, rates of MH-related ED visits & hospitalizations

• Exposure: Displacement

• Covariates
  – Demographics, clinical characteristics, healthcare utilization prior to baseline, # of residential movements prior to baseline
Statistical analysis

• 1\textsuperscript{st} step: Inverse probability of treatment weighting (IPTW)
  – To balance baseline characteristics between displaced and control groups
    • Age at baseline
    • Sex
    • Pre-baseline # of ED visits/year
    • Pre-baseline # of hospitalizations/year
    • History of diagnosis (15 Clinical Classifications Software diagnosis categories)
    • # of residential movements during the year before baseline
Statistical analysis (2)

• 2\textsuperscript{nd} step: negative binomial regression with IPTW & robust variance estimation
  • Outcome = exposure + sex + age + # of visits during the year before baseline + # of residential movement during the before baseline + offset (log of total follow-up years)
Results
Cohort characteristics

• Cohort members vs. the general NYC adult population in 2010
  – Higher % of women (72% vs. 54%)
  – Higher % of persons aged 45-64 years (37% vs. 28%)
  – Higher % of health insurance (93% vs. 83%)
  – Similar % of mental illness (22% vs. 21%)
  – Similar % of diabetes (9% vs. 9%)
Displaced residents were more likely to be men and younger

Before IPTW

Female
- Ages 25-44 yrs: 65% Displaced, 74% Staying
- Ages 45-64 yrs: 30% Displaced, 38% Staying

After IPTW

Female
- Ages 25-44 yrs: 35% Displaced, 41% Staying
- Ages 45-64 yrs: 36% Displaced, 39% Staying
Displaced residents were more likely to move, make ED visits, and be diagnosed with MH-related conditions prior to baseline.
Results from regression

- The cohort was followed up for average 5 years post-baseline

- Displacement vs. staying in the gentrifying neighborhoods was associated with higher rate of healthcare utilization
Post-hoc analyses

• Displaced persons were compared with those staying in non-gentrifying, poor neighborhoods and similar results were observed

• Primary reasons for healthcare utilization were different between those who were displaced and stayed
  – Alcohol-related visits: 10% vs. 2%
  – Drug-related visits: 4% vs. 0.6%

• However, we continued to find high RR associated with displacement after taking out alcohol- and drug-related visits
Discussion
Summary

• Displaced persons, compared with those remaining in the gentrifying neighborhoods, had increased rates of ED visits, hospitalizations, and MH-related visits
  – This findings hold true when comparing with those who stayed in poor, non-gentrifying neighborhoods

• Limitations
  – Homeless people might have been included in the displaced group
  – Displacement might not result from gentrification
Implications

• Raising awareness of negative impacts of displacement potentially due to gentrification

• Justifying efforts to strengthen systems for mental health support and services, especially for those who have been displaced
Current and future works

• Developing a concept map to summarize various pathways from gentrification to health
  – Better understanding upstream inputs
  – Different impacts by in-migration and out-migration

• Analyzing other data sources and other outcomes
  – Housing instability and diabetes risk among people leaving the NYC public housing
  – Displacement and child mortality risk among residents of NYC gentrifying neighborhoods
  – Health impacts among original residents who remain in gentrifying neighborhoods
    • Food mirage phenomenon
  – Comparisons w/ other cities
Thank you.

For more information, contact NYC DOHMH
Bureau of Epidemiology Services
Dial 311 or visit nyc.gov/health
ACTIVE BREAK

Kelly McIntyre, Physical Activity Coordinator,
Get Healthy Philly
## WHAT’S HAPPENING IN OUR AREA?

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| **DAVIN REED,**  
| **PH.D.**  
| Community Development  
| Economic Advisor  
| Federal Reserve Bank of Philadelphia  
| @philadelphiafed |
CLOSING REMARKS

Christina Miller, Executive Director, Health Promotion Council
HCTF Co-Chiar
NEXT STEPS

• The HCTF has had a busy 2019 and will take a brief hiatus until Summer 2020. Stay tuned for future meetings!
• Please turn in your evaluations and recycle your name badges.
• AICP CM#: 9188778
• Continue the conversation over lunch!
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