2019 Maryland Rural Health Conference

Infant Mortality and Race in Rural MD: Data, Lessons Learned, and Opportunities

Black vs. White and Rural vs. Non-rural Infant Mortality Trends in Maryland

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Motivation for the Data Analysis

- **Senate Bill 266 of the 2018 session of the Maryland General Assembly directed the performance of "a study regarding the mortality rates of African American infants and infants in rural areas."**

- **<u>What were the legislators seeing or hearing that prompted a request for this particular analysis</u>?**

- **The next several slides show the data behind the perception that prompted the request.**

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Brief Description of the Data Approach

- **We defined rural and non-rural by the designations assigned to jurisdictions in Maryland**

    - **Non-Rural Jurisdictions are Baltimore City and Anne Arundel, Baltimore, Montgomery Prince George's and Howard counties.**

    - **Rural jurisdictions are the other 18 jurisdictions.**

- **Race and ethnicity are from the birth certificate.**

- **Data are from Maryland Vital Statistics Annual reports.**
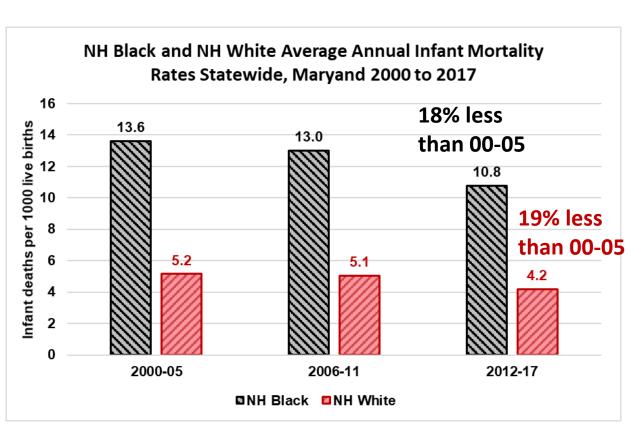
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Brief Description of the Data Approach

- **For the groups reported (by race, place and time), we combined the counts of infant deaths, and divided by the counts of live births …**

- **To produce the rate of infant deaths per 1000 live births (the infant mortality rate).**

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Black vs. White Infant Mortality Rates, Maryland Statewide

NH Black and NH White Average Annual Infant Mortality Rates Statewide, Maryland 2000 to 2017

Infant mortality is consistently about 2.5 times as high for NH Blacks as for NH Whites.

The difference (subtraction) between the rates fell from 8.4 in 2000-05 to 6.6 in 2012-17.

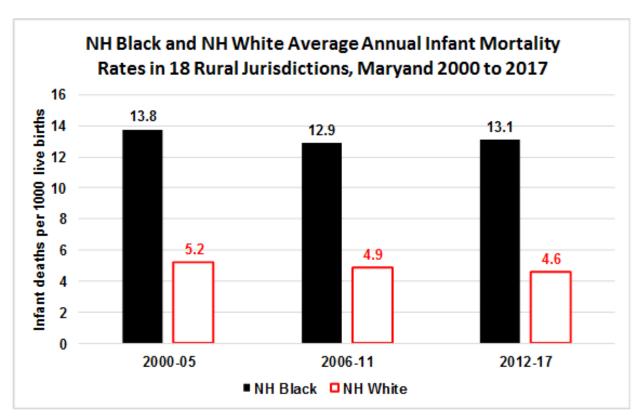This is a 21% reduction in the difference between the rates.

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Statewide progress of about 20% on …

- **NH Black infant mortality rate: 18% reduction**

- **NH White infant mortality rate: 19% reduction**

- **NH Black –NH White rate difference: 21% reduction**

- **But … was this improvement shared equally between rural and non-rural jurisdictions?**

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Black vs. White Infant Mortality Rates, Maryland Rural Jurisdictions

NH Black and NH White Average Annual Infant Mortality Rates in 18 Rural Jurisdictions, Maryand 2000 to 2017
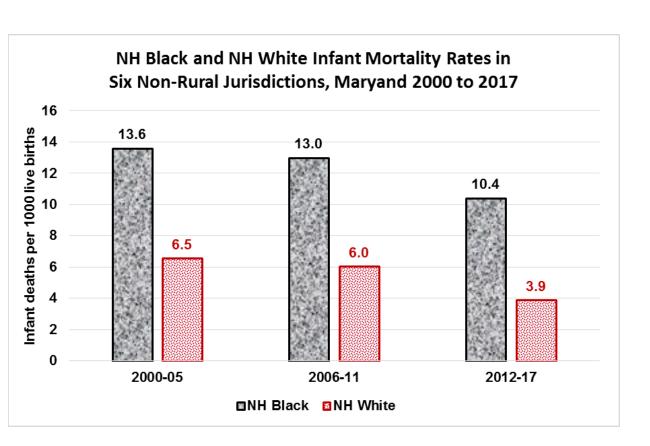
From 2000-05 to 2012-17:

NH Black rate fell by 0.7 (5% reduction)

NH White rate fell by 0.6 (12% reduction)

The difference (subtraction) between Black and White rates fell from 8.6 to 8.5 (1% reduction)

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Black vs. White Infant Mortality Rates, Maryland Non-Rural Jurisdictions

NH Black and NH White Infant Mortality Rates in Six Non-Rural Jurisdictions, Maryand 2000 to 2017
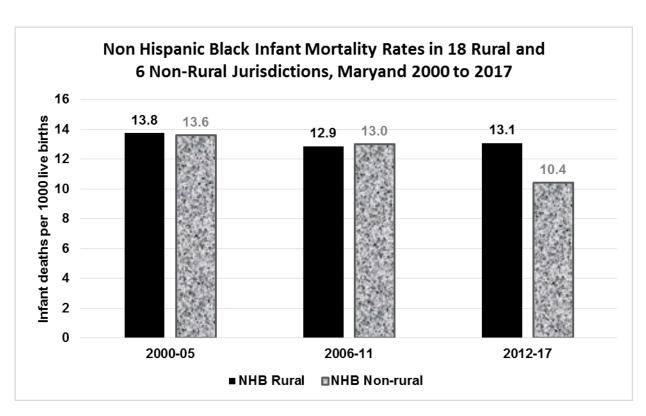
From 2000-05 to 2012-17:

NH Black rate fell by 3.2 (24% reduction)

NH White rate fell by 2.6 (40% reduction)

The difference (subtraction) between Black and White rates fell from 7.1 to 6.5 (8% reduction)

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Rural vs Non-rural NH Black Infant Mortality Rates, Maryland

Non Hispanic Black Infant Mortality Rates in 18 Rural and 6 Non-Rural Jurisdictions, Maryand 2000 to 2017
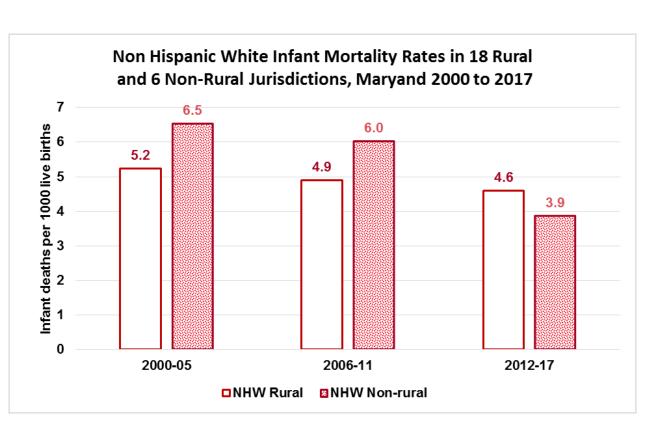
Rural started the same as Non-rural …

but ended up worse than Non-rural.

Rural improved but was passed by Non-rural improving faster.

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Rural vs Non-rural NH White Infant Mortality Rates, Maryland

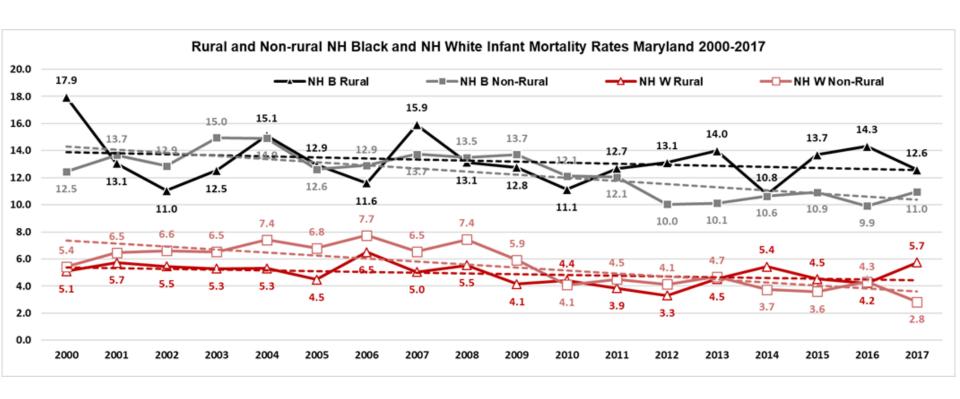Non Hispanic White Infant Mortality Rates in 18 Rural and 6 Non-Rural Jurisdictions, Maryand 2000 to 2017

Rural started better than Non-rural ...

but ended up worse than Non-rural.

Rural improved but was passed by Non-rural improving faster.

The Complexity and Variability of the One-year Data

Rural and Non-rural NH Black and NH White Infant Mortality Rates Maryland 2000-2017

Proportion of Infant Deaths in Rural

- **Programming for infant mortality reduction tends to follow the infant death count, rather than the infant death rate.**

- **In 2017 462 infant deaths**

  - **340 in the six Non-rural jurisdictions (74%)**

  - **122 in the 18 Rural jurisdictions (26%)**

  - **171 in Baltimore City plus Prince George's County (37%)**

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Final Consideration …

- We see that rural infant mortality rates are now worse for both NH Whites and NH Blacks.

- If you were to look at 2012-2017 Rural vs Non-rural rates without separating the races, Rural would have a lower rate.

- This is because Rural has a smaller proportion of its population as NH Black, and so this difference in the proportion of race between Rural and Non-rural hides (confounds) the real Rural disadvantage.

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Conclusion: Race and Place Equity …

- **Requires holding programs accountable for specific race-by-place goals, not just Statewide goals.**

- **Race-by-place cross-stratification analysis is often necessary to see the whole story in the data.**

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