Urgently Needed: Equity Tools to Navigate Demographic Gale-Force Wind Gusts

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Gale-force demographic disruptors such as unequal population growth can potentially prevent our state from achieving the exemplary goals and targeted outcomes set forth in *Healthy North Carolina 2030*. These forces also present opportunities if carefully addressed. Policy prescriptions and strategic investments required to ensure success are outlined here, following an overview of demographic drivers that create public health vulnerabilities.

Introduction

"Healthy North Carolina 2030: A Path Toward Health" draws on the knowledge and expertise of interdisciplinary scholars and leaders and leverages research on the social determinants of health to develop important goals and targeted outcomes for a common set of public health indicators for our state [1]. Successful achievement of the coveted outcomes will enhance North Carolina's reputation as an attractive, prosperous, and inclusive place to live, work, play, and do business [2].

In this paper, we highlight powerful demographic disruptors—analogous to gale-force winds in an adverse weather event—that, if neglected, will challenge the state's ability to achieve greater public health equity by 2030 [3]. Economic and residential dislocations of long-term residents in growing urban counties; increasing social and spatial isolation of older adults and less-than-college-educated young adults in declining rural counties; and geographic barriers faced by non-White youth are all manifestations of and precursors to a set of national demographic gale-forces winds that will challenge these efforts [3]. In support of the state's population health goals, we outline actions required to navigate these changes.

The State's Population Boom and Health Inequities

North Carolina is a dynamic center of population growth, expanding by 3.9 million since the 1990 census, and attracting domestic migrants from every other state and international migrants from mainly Latin America and Asia [3]. People of color and retirees have driven population growth; newcomers on average have higher incomes than both outmigrants and long-term residents, increasing diversity, aggregate consumer spending, and business and tax revenues [3]. Unfortunately, there are demographic winners and losers in this population boom. Between 2010 and 2020, 95% of net population growth was concentrated in 15 counties that are urban in character and/or rich in amenities (Figure 1). The remaining 85 counties experienced slow growth, no growth, or decline. This pattern of uneven growth creates major health equity challenges for multiple demographic groups.

For the long-term residents of the rapidly growing migration-magnet counties, the wealthier newcomers drive up the cost of housing, goods, and services. In some instances, working poor families, seniors on fixed incomes, and some civil servants are priced out of the market, creating homelessness or moves to affordable communities requiring longer and more costly work commutes [4].

The 85 counties passed over by the population boom are experiencing an exodus of young people, the most-common disrupter of age structure in low- or no-growth areas [3]. Those left behind in these counties are disproportionately older adults, with too few healthy, working-age, tax-paying adults remaining to support the elderly. Hospitals are closing, few senior care facilities are available, patients travel long distances for care, recruiting and retaining health professionals is a challenge, and online health services are difficult to access without reliable and sufficient broadband. Deaths exceeded births in 65 of these mostly rural counties in 2019 [5].

African Americans living on very low fixed incomes make up a substantial share of the most vulnerable older adults left behind in declining rural counties—especially in Eastern North Carolina. Almost three-quarters live independently; roughly 20% are caretakers of other family members; and 5% live with extended family who serve as their caregivers [6]. Most occupy housing that is deteriorating, with potential for falls and routine exposure to legacy pollutants that contribute to chronic illnesses, disabilities, and reduced years of active life expectancy [6]. Whether they own or rent, most low-fixed-income African Americans are finan-

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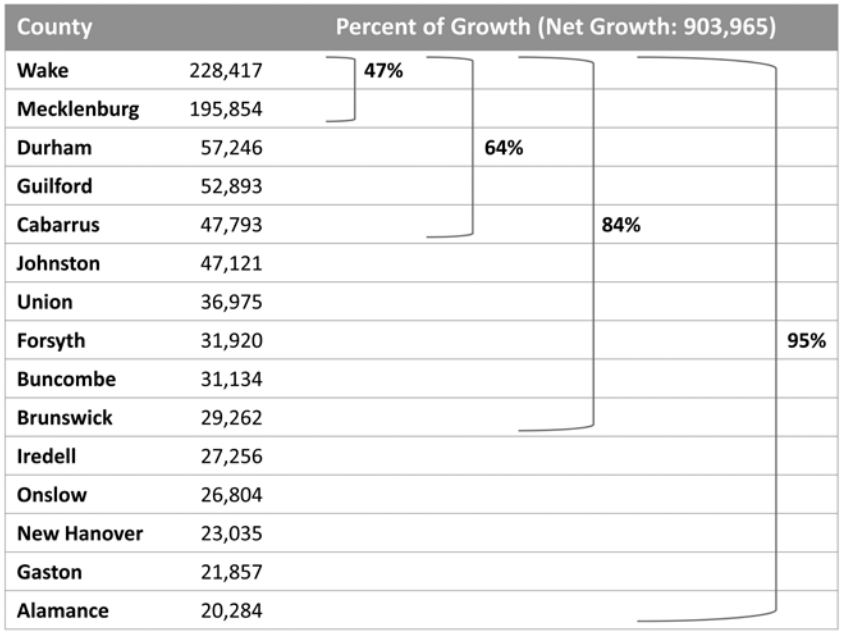
FIGURE 1.
North Carolina's Growth Magnets, 2010–2020



Source. U.S. Census 2020. https://www.census.gov/library/visualizations/interactive/racial-and-ethnic-diversity-in-the-united-states-2010-and-2020-census.html.

cially burdened by excessive monthly housing costs, so moving is not an option without governmental assistance. In addition to one or more physical ailments, many suffer from loneliness and isolation—the health impact of which can be equivalent to smoking 15 cigarettes a day—as well as food insecurity [6, 7, 8].

Uneven growth also has created health inequity for people of prime working age (25–44) with less than a college degree who are disproportionately concentrated in rural communities. Reportedly not benefitting from economic prosperity, lacking access to health care, and suffering from debilitating pain, this population is experiencing increased mortality rates due to high rates of suicide and alcohol- and drug-induced deaths [9].

Figure 2 illustrates the link between opioid drug use and educational attainment in North Carolina. In 2018, 445 million opioid pills were dispensed—an average of 43 pills per person [10]. The number of pills dispensed per capita ranged from less than 30 in urban counties with high concentrations of college-educated residents to as many as 110 in some rural counties with a high concentration of residents with less than a college education [10].

The impact of opioids has been devastating. In 2018, there was an average of five overdose deaths per day; opioid-related hospital emergency visits were 18 per day; and Naloxone reversals were roughly 10 per day [10]. With shutdown of face-to-face drug treatment and counseling during the pandemic, deaths of despair increased sharply in 2020 [11].

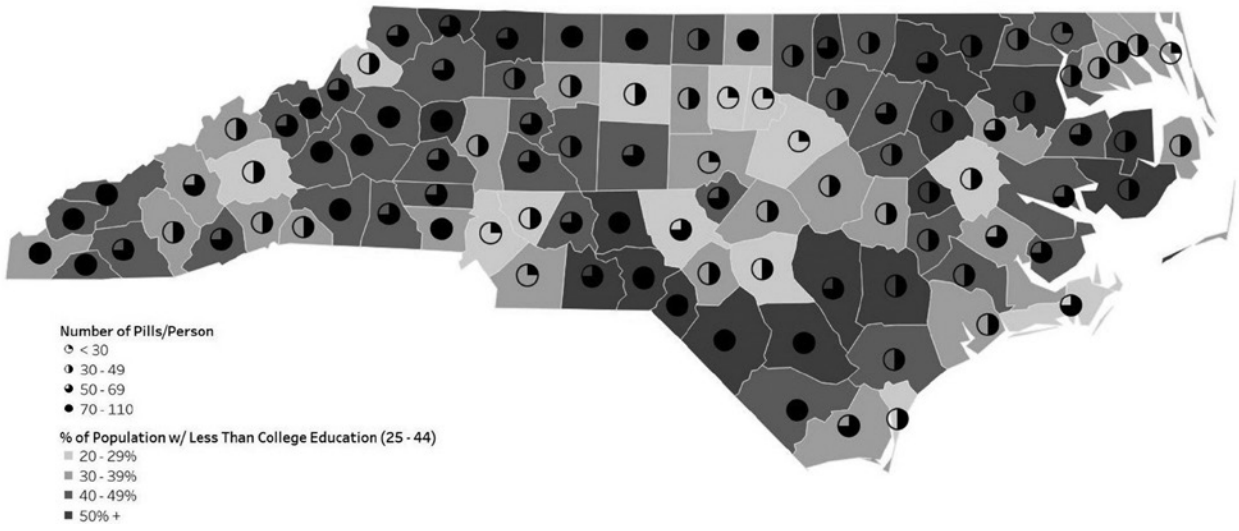
Constituting another health equity challenge, far too many predominantly non-White school-age children face a triple whammy of geographic disadvantages [12]. These young people are highly concentrated in counties where there is inadequate political or financial support for their education (whammy #1) and neighborhoods characterized by hyper-racial segregation (whammy #2) and concentrated poverty (whammy #3) [12]. Making matters worse, they often attend schools with deteriorating school buildings that pose a health risk [13]. And, because school-based supports are insufficient to address physical and socioemotional development needs, these students are substantially at risk of falling through the cracks of the K–12 education system, reducing their odds of qualifying for admission to college and acquiring the requisite skills to compete in an increasingly high-tech economy.

Gale-Force Demographic Wind Gusts

Paralleling a national trend and masked in aggregate growth statistics [14], North Carolina's population has grown progressively more slowly in each of the past three decades (Table 1). In the most recent decade, absolute population growth failed to surpass 1 million for the first time since the 1990s (Table 1A). If this trend continues, state efforts to improve population health may become increasingly more difficult to sustain financially, given the likely impact of slowing growth on consumer spending, business receipts, and tax revenues.

Factors driving the slowdown in total growth include a corresponding slowdown in foreign-born population growth (Table 1B) driven by policies reducing immigration to the

FIGURE 2.
Opioid Pills Dispensed Per Capita by County, 2018 (The State: 43 Pills/Person)



Source. NCDHHS Opioid Action and Substance Use Plan Data Dashboard, available at https://www.ncdhhs.gov/opioid-action-and-substance-use-plan-data-dashboard.

United States, the 2008–2010 Great Recession, and the COVID-19 pandemic that closed US borders [15]. Another contributor has been progressive slowing of the rate of White population growth—from 13.5% in the 1990s, to 10.2% in the 2000s, to 1.4% in the most recent decade—due largely to below-replacement-level fertility among White women (Table 1C). Deaths have exceeded births among Whites since 2015; in 2019, deaths exceeded births among Whites in 87 of 100 counties [5].

TABLE 1.
North Carolina Total, Foreign-Born, and White Population Change, 1990-2020

A. TOTAL POPULATION

Census Period	Absolute Change	Percent Change
1990-2000	1,420,676	21.4
2000-2010	1,486,170	18.5
2010-2020	903,905	9.5

B. TOTAL POPULATION

Census Period	Absolute Change	Percent Change
1990-2000	314,923	273.7
2000-2010	289,646	67.3
2010-2019	164,985	22.9
2016-2019 (Trump Years)	94,993	12.0

C. TOTAL POPULATION

Census Period	Absolute Change	Percent Change
1990-2000	676,028	13.5
2000-2010	576,840	10.2
2010-2020	88,153	1.4

Source. U.S. Census, 2000, 2010 & 2020; American Community Survey, 2019.

The prospects of continued population growth are unlikely in part because a baby boom is unlikely in the foreseeable future [16]. In 2020, US fertility rates dropped 4%, with reportedly nearly 40,000 fewer births than "otherwise would have been conceived in the early months of the COVID-19 pandemic" [17]. In North Carolina, there were 12,639 more deaths (51,224) than births (38,585) among Whites in the first six months of 2020 [18]. Researchers estimate "close to 300,000 fewer births in the U.S. in 2021 as a result of the outbreak" [16]. Fertility rates are now also below the replacement level for all women of color except Native Hawaiian and Pacific Islanders [19].

Moreover, an increase in deaths of despair could further slow total population growth and possibly trigger population decline in the state [20]. Bernstein and Achenbach report there were 93,000 drug overdose deaths in 2020, representing a 30% increase over the 2019 death toll, bringing the total to more than 900,000 overdose deaths since the United States drug epidemic began in the late 1990s [11]. Further, an estimated 144,000 children's lives have been upended by the death of either a primary (122,000) or secondary (22,000) caregiver [21].

A decline in labor force participation, especially among women, is another demographic gale. Nationally, COVID-19 has forced an estimated 1.7 million older workers into involuntary retirement and more than 2 million women out of the workplace [22]. Black workers without a college degree reportedly were more likely than other groups to retire involuntarily during the pandemic—purportedly with an average savings of $9,000 [22]. And, faced with a dwindling supply of accessible and affordable child care, many working mothers have been forced to stay home and take care of their children [23, 24]. Part of the Great Resignation of

2021, these developments pose a major challenge for North Carolina employers who are struggling to find workers of all ages [25].

Equity Tools to Navigate Demographic Disruptors

Adopting the view that "the glass is half full even when it is half empty," we assert that these demographic disruptors constitute a propitious opportunity to advocate for more inclusive and equitable development policies moving forward. To achieve the Healthy North Carolina 2030 programmatic goals and targeted outcomes, we must use all evidence-based "equity tools" to minimize economic and residential dislocations caused by the influx of wealthier newcomers, including creatively packaged capital assets to finance sustainable community development and procurement policies that support historically marginalized businesses [26]. We should use this opportunity to advocate for immigration reforms that reflect the critical role immigrants play in our economy due to crisis-induced premature deaths of prime-working-age individuals [27] and lobby for an employment-based visa program like the Australian and Canadian place-based visas to revive declining rural communities [28].

We must also leverage increasing attention to environmental injustices from legacy pollutants in "sick" school buildings; this can be done while also attaining economic justice by mobilizing entrepreneurs and workers from historically marginalized populations to conduct repairs and rebuilding [29]. We must encourage business leaders to audit their enterprises to ensure inclusive, equitable, and family-friendly workplaces that support women having children and provide the flexibility for them to care for those children [30] while also solving the child care shortage with accessible, high-quality, and affordable day care and resources for improving the business acumen necessary for the sustainability of child care providers [31]. Additionally, we should create encore entrepreneurship and workforce development training programs for the 55+ population of involuntary retirees to establish reentry into the post-pandemic economy. Employers will gain access to a generation of Boomer workers with a demonstrated strong work ethic and the workers will gain access to new income streams that reduce the likelihood of future poverty.

We can achieve our goals only if we direct resources toward addressing the root causes of deaths of despair and racially disparate impacts of COVID-19 by prioritizing access to health care and affordable housing [32].

Aggressively pursuing these equity tools and levers will serve as a hedge against the demographic gale-force winds we face; ensure that industries will have access to diverse talent and markets; and, aligned with Healthy North Carolina 2030, increase the likelihood that all North Carolinians are able to live in vibrant communities and pursue employment in workplaces free of environmental risks. NCMJ

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