First-Year Gap Analysis

Denver Regional Accountable Health Community

Introduction

The Denver Regional Accountable Health Community (AHC) is one of 32 organizations nationwide to be awarded funding from the Centers for Medicare and Medicaid Services to bridge the gap between clinical and community service providers. The AHC represents a consortium of clinical and community providers organized by the Denver Regional Council of Governments, which includes the region's federally designated Area Agency on Aging.

Recently, the AHC developed its first gap analysis as a foundation for a robust population-based analysis of:

- where social vulnerabilities exist within the geographic target area and
- where there are gaps in community-based services.

This analysis will help the AHC focus its efforts to close gaps in service delivery in the target area.
An analysis of the AHC geographic target area follows, including a break-out of the various geographies and demographics that align with, and expand upon, areas identified by the AHC's Health Resource Equity Statement. AHC project staff consider the first-year gap analysis to be foundational because it relies on publicly available information to indicate areas that might need additional community-based support. AHC project staff focused their foundational gap analysis on areas that will inform ongoing analysis. Currently, AHC project staff do not have access to data on utility or safety needs but expect that by adding health-related social needs screening results, such information will be available for analysis by the first half of the second year. Moreover, AHC project staff expect the gap analysis to be ongoing and updated more frequently when data specific to AHC, including Medicaid claims, screening results, community services data and larger data sets become available over the course of operations.

Methodology

AHC project staff focused their first-year gap analysis on socially vulnerable neighborhoods, henceforth referred to as focus areas, served by AHC clinical partners. The focus areas are demographically similar to the populations defined in the AHC's Health Resource Equity Statement. AHC project staff identified low-income populations using Census tract counts[1] of individuals with incomes below the federal poverty level (FPL)[2]. Figure 1 identifies the focus areas among the tracts that form the overall AHC target area.
AHC project staff grouped Census tracts in the top quartile of the share of low-income population for analysis. They believe the selected neighborhoods would benefit from a deeper analysis of their dynamics and warrant dedicated community-based services in the context of the AHC intervention as service gaps are identified. Three focus areas emerged from the analysis:

(i) **west Denver** between 6th Avenue, Jewell Avenue, Interstate 25 and Federal Boulevard
(ii) **west Aurora** between Quebec Street and Tower Road along East Colfax Avenue and
(iii) **North Federal Boulevard corridor** between I-25 and 120th Avenue.

[1] Source: U.S. Census Bureau (American Community Survey, 2016)
[2] The federal poverty level for 2016 is defined by the poverty guideline from the Office of the Assistant Secretary for Planning and Evaluation in the U.S. Department of Health and Human Services.

AHC project staff defined the focus areas as a contiguous set of Census tracts. Therefore, tracts with fewer low-income populations surrounded by tracts with a high share of low-income populations were included in the focus areas. AHC project staff determined that a neighborhood's dynamics were more important than income. For example, project staff decided a tract with higher relative income surrounded by tracts with a significant share of low-income populations should not be isolated from the context of poverty that surrounds it.

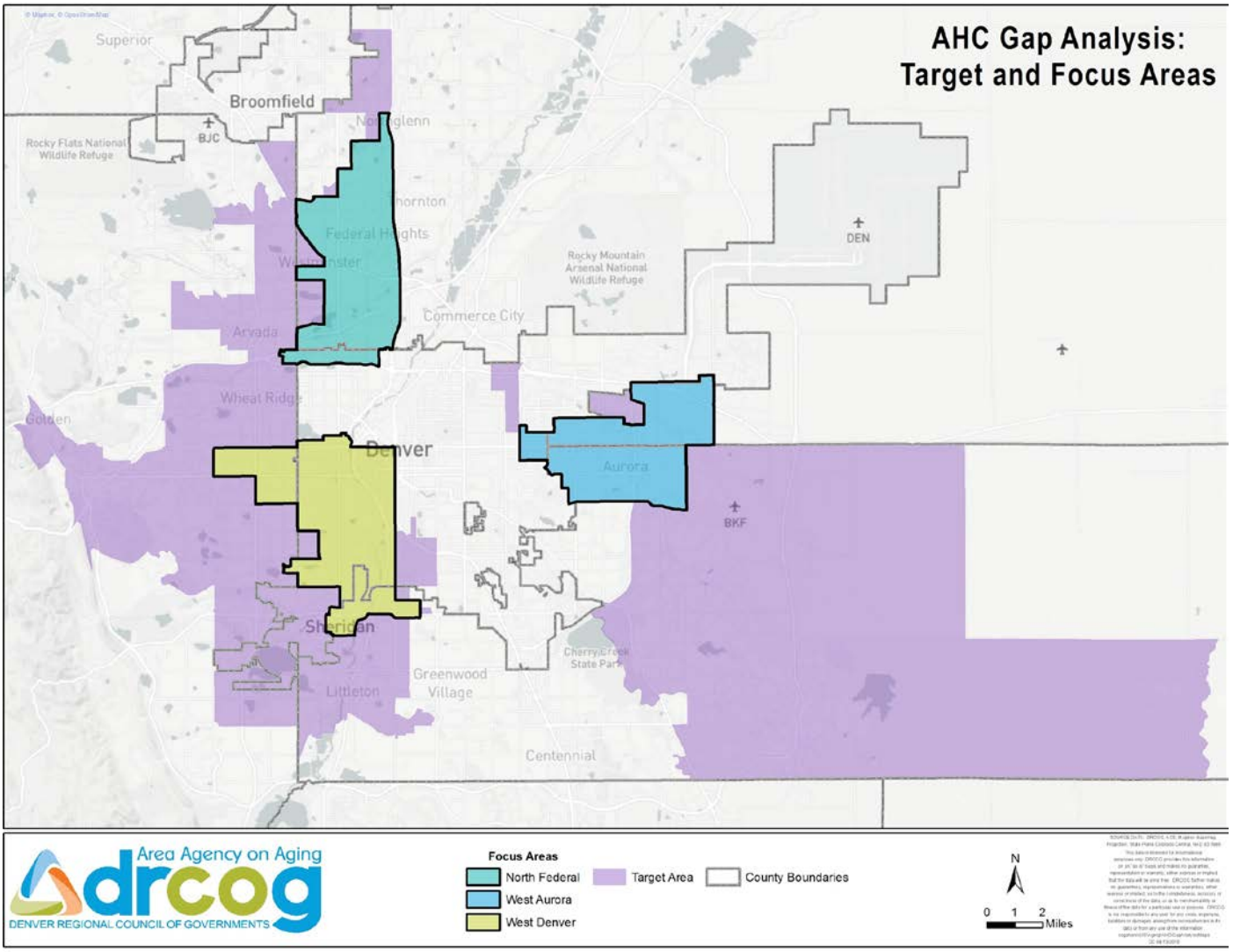


Figure 1: AHC target area and focus areas. Focus areas are identified using Census tract-level counts of population under the federal poverty level. Source: U.S. Census Bureau (American Community Survey, 2016).

Socio-Economic Profile

The three focus areas contain 122,925 households and 370,061 individuals. The focus areas account for 30 percent of households and 33 percent of individuals in the overall AHC target area.

In west Denver and west Aurora, the percentage of households earning an income of less than $20,000 is significantly higher than in the greater AHC target area. Lower average income leads to a higher concentration of Medicaid enrollees; in both focus areas, more than 30 percent of the population is enrolled in Medicaid. About 20-22 percent of households receive public assistance and Supplemental Nutrition Assistance Program (SNAP) benefits, or twice as much as in the AHC target area.

Even though the North Federal Boulevard corridor's overall intermediate socioeconomic status falls between west Denver/Aurora and the AHC target area, program managers determined the neighborhood warrants a deeper analysis. One in four of its residents are enrolled in Medicaid and 16.6 percent of the population receives public assistance, including SNAP benefits.

Table 1: Socio-economic indicators in the focus areas and AHC target area. Source: U.S. Census Bureau (American Community Survey, 2016).

	West Denver	West Aurora	North Federal	AHC Target Area
Number of Households	55,333	35,893	38,699	428,248
Population	153,467	105,523	111,071	1,120,727
Household Size (%)	2.8	2.9	2.9	2.6
Families (%)	57.3	60.9	64.5	62.5
Grandparents Living with Grandchildren (%)	5.6	5.8	5.5	3.8
Living Alone (%)	16.0	14.3	12.7	14.5
Households with Income Less than $20,000 (%)	27.0	22.9	15.6	14.4
Unemployed (%)	6.9	9.0	7.4	6.3
In Labor Force (%)	66.1	68.3	69.8	70.3
With Cash Public Assistance or Food Stamps/SNAP (%)	20.2	22.7	16.6	11.2
Foreign Born (%)	24.5	29.9	19.2	14.6
Uninsured (%)	22.8	25.3	20.5	13.9
Medicaid (%)	31.7	33.7	25.3	18.0
With a Disability (%)	10.7	10.9	12.8	10.4
Hispanic or Latino (%)	57.5	46.9	51.6	29.8
African American (%)	3.4	19.2	1.2	6.3
Rent over 30% of Income (%)	52.2	58.4	53.8	51.1

Income distribution in west Denver and west Aurora shows a higher distribution of lower incomes than the greater AHC target area (Figure 2). In the two focus areas, 16 to 20 percent of households earn less than $15,000 per year. Poverty, albeit less pronounced, is still an issue along the North Federal corridor, where 21 percent of households earn less than $25,000 a year. Moreover, 48 percent of households earning less than $15,000 per year in the AHC target area are located one of the three focus areas.

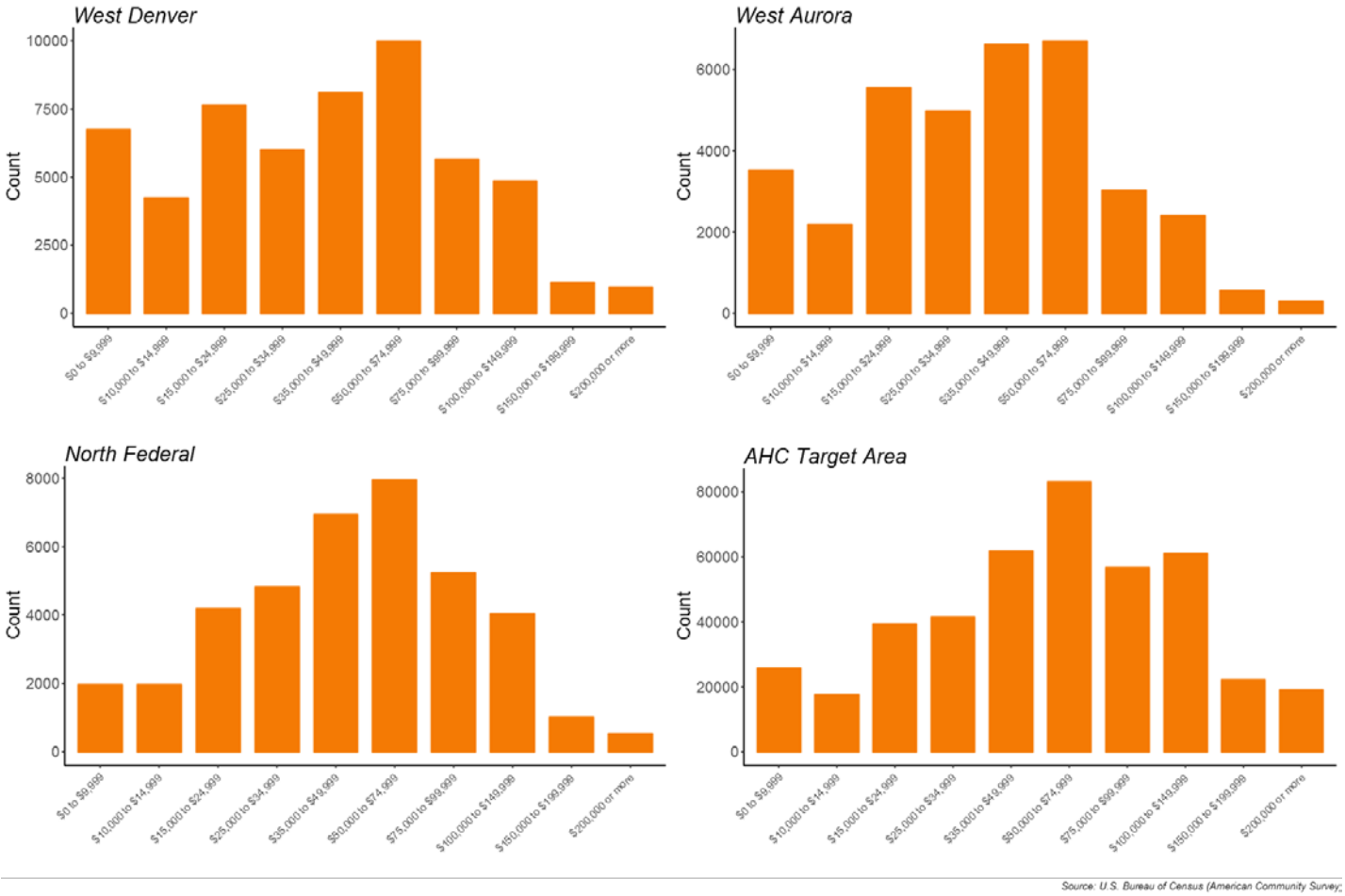


Figure 2: Income distribution in the focus areas and AHC target area. Source: U.S. Census Bureau (American Community Survey, 2016).

In the three focus areas, the age pyramid shows a smaller 10-19 age group than in the greater AHC target area (Figure 3). Moreover, the upper part of the pyramid is thinner than in the greater AHC target area. Focus areas are characterized by large 25-44 populations. Focus areas are characterized by a larger population of people 25-44 years old.

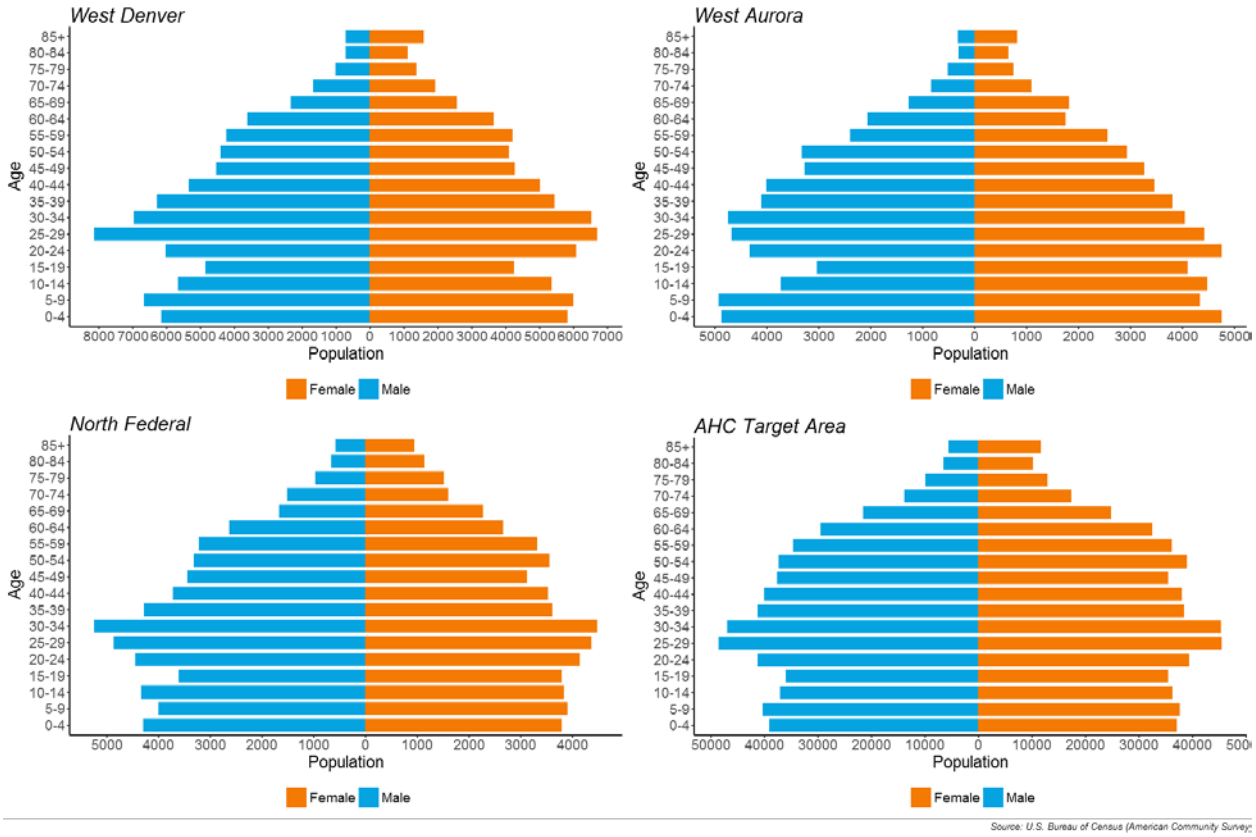


Figure 3: Age distribution in the focus areas and in the AHC target area. Source: U.S. Census Bureau (American Community Survey, 2016).

Health status

Because income is strongly correlated with health, project staff expect to find a large share of low-income populations in both west Denver and west Aurora will have implications on the prevalence of chronic diseases and health-related social needs for the entire AHC target area. Looking at historical data from the All Payer Claims Database, AHC project staff discovered that diabetes in west Denver and North Federal, and diabetes, hypertension and pulmonary and kidney diseases in west Aurora, are more prevalent in adults 60 and older when compared with the rest of the Denver metropolitan area. Although project staff only have access to data regarding the population 60 and older, they believe it is likely to hold true among younger populations because health status in later years correlates with health status at younger ages.

Further analysis revealed that among adults 60 and older using all types of health insurance, those living in the focus areas cost insurers $1,000 more each year compared with those in the Denver region. Higher costs are partly due to income disparity and socially determined differences in health status. When controlling for Medicaid enrollment, patients cost insurers less in the west Denver area than patients in the rest of the Denver region. However, the situation is reversed in west Aurora. Even after controlling for Medicaid enrollment, Medicaid beneficiaries cost insurers an average of $300 more in medical expenses than in the rest of the region; and $600 more if not enrolled in Medicaid.

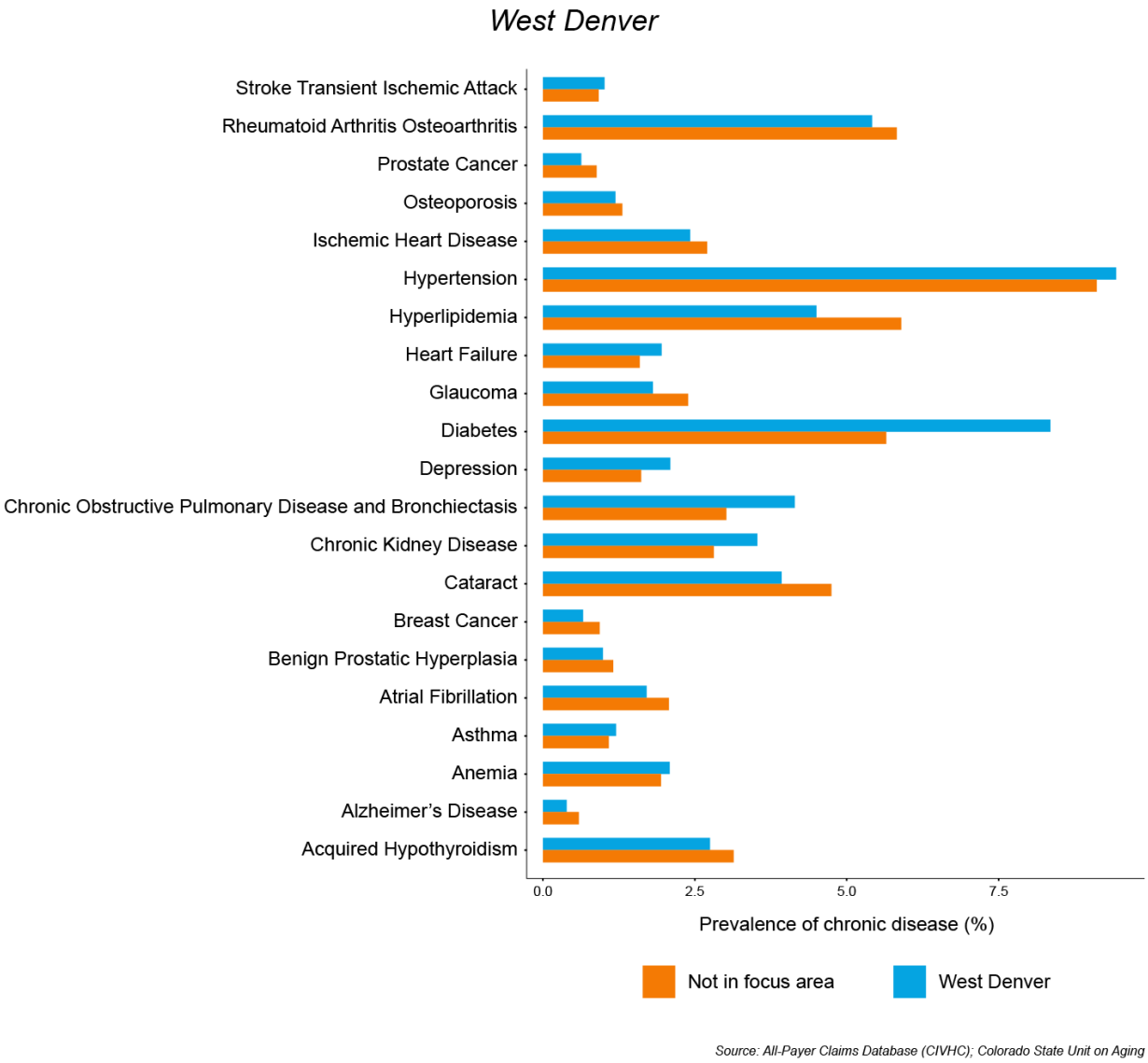


Figure 4A: Prevalence of chronic diseases in the focus areas compared with the Denver region. Chronic diseases are defined according to the methodology from the Chronic Conditions Data Warehouse. Source: All Payer Claims Database (Center for Improving Value in Health Care, 2010-2015).

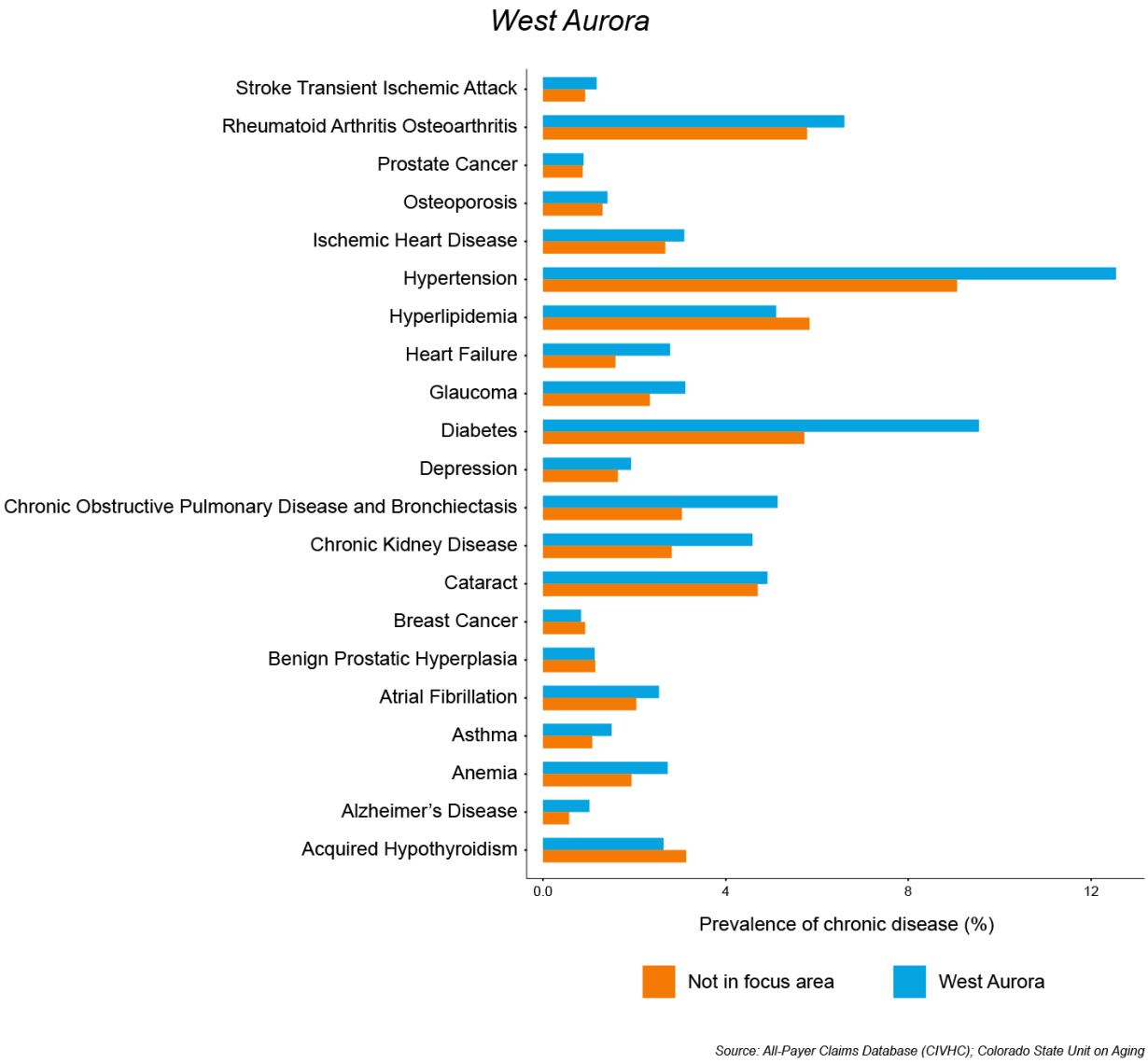


Figure 4B: Prevalence of chronic diseases in the focus areas compared with the Denver region. Chronic diseases are defined according to the methodology from the Chronic Conditions Data Warehouse. Source: All Payer Claims Database (Center for Improving Value in Health Care, 2010-2015).

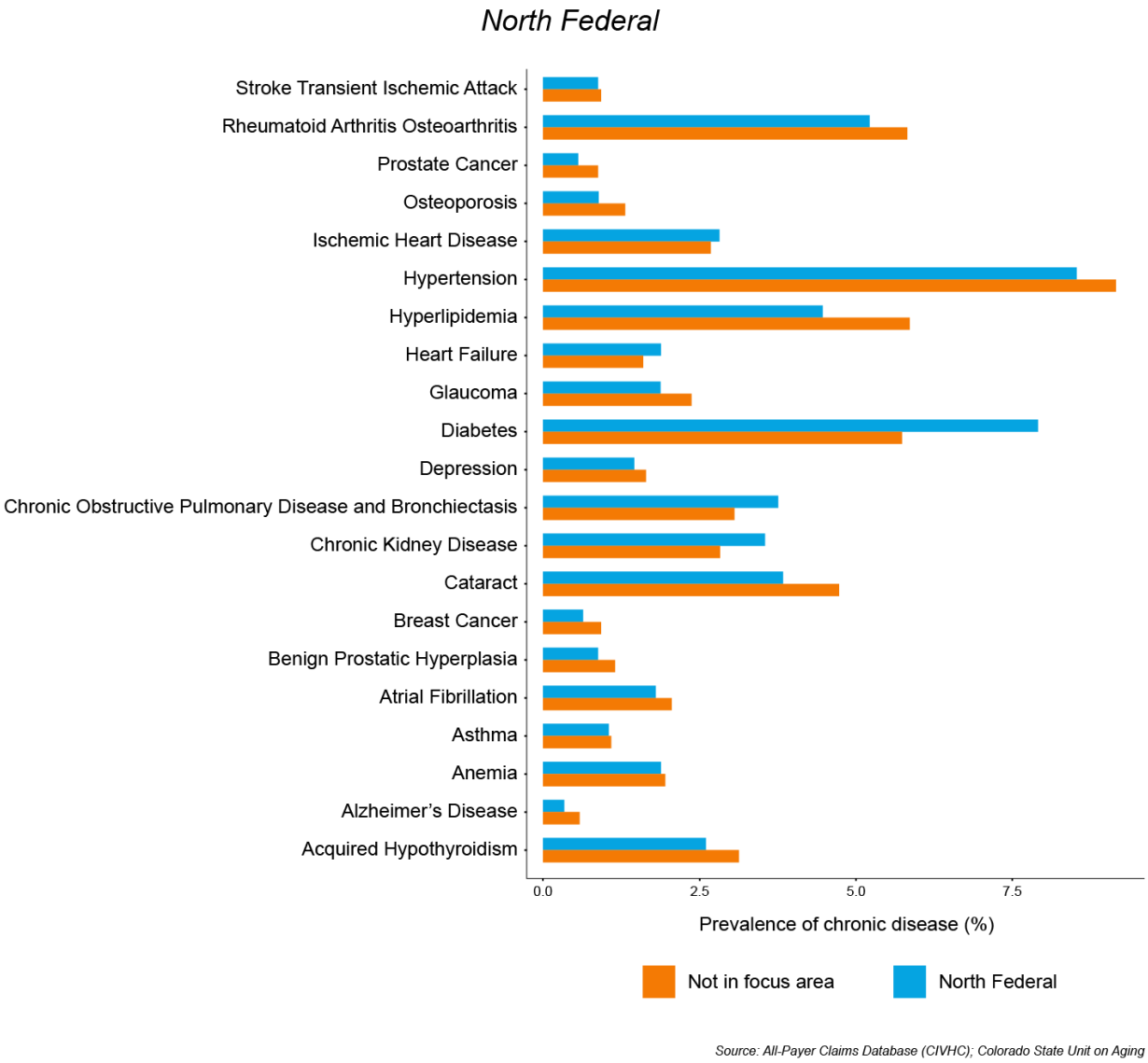


Figure 4C: Prevalence of chronic diseases in the focus areas compared with the Denver region. Chronic diseases are defined according to the methodology from the Chronic Conditions Data Warehouse. Source: All Payer Claims Database (Center for Improving Value in Health Care, 2010-2015).

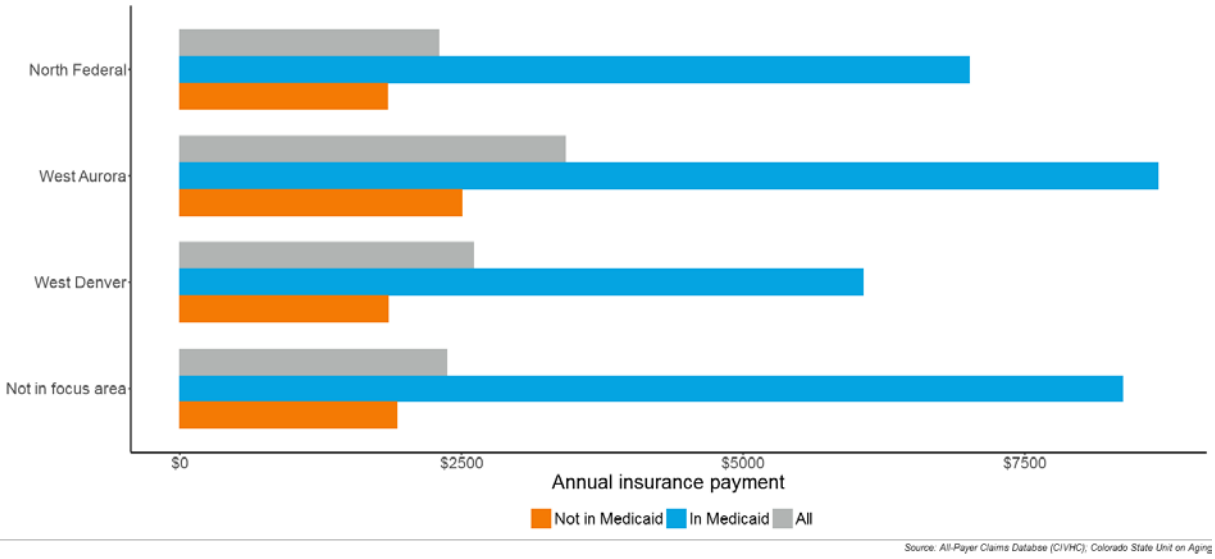


Figure 5: Health insurance payment in the focus areas compared with the Denver metropolitan area. Payment is average annual health care costs per patient. Source: All Payer Claims Database (Center for Improving Value in Health Care, 2010-2015).

Heterogeneity within the focus areas

More granular analysis within each focus area shows that although each is characterized by a significant share of low-income populations, they are not homogenous. Moreover, variations in household structure within each area could affect the efficacy of the AHC intervention. As demonstrated in figures 6A through 9C, the focus areas contain many variations in household structure, composition and financial burden. Project staff will need to consider these variables and others before designing and deploying a structural change in community-based service delivery. Without the context provided by a deeper investigation of the neighborhood dynamics, provided by AHC project staff, program staff risk attempting to fix problems that may not exist while overlooking areas that would benefit from an intervention.

Households in the northern and southern fringe of the west Denver focus areas appear to be more rent-burdened and have fewer families. The core of the west Denver focus area contains a higher share of three-generation families, most likely Hispanic or Latino. Real estate is more oriented toward renters at the periphery of the west Denver focus area, while in the core the fraction of homeowners (50 to 64 percent) is higher and closer to the regional average.

The west Aurora focus area is more homogenous, although renters are more likely to be concentrated in the north along East Colfax Avenue.

Along the North Federal corridor, households that pay more than 30 percent of their income toward rent are concentrated along I-25 in Sherrelwood and Federal Heights. The corridor between I-25 and North Federal also has a higher concentration of Hispanic or Latino families.

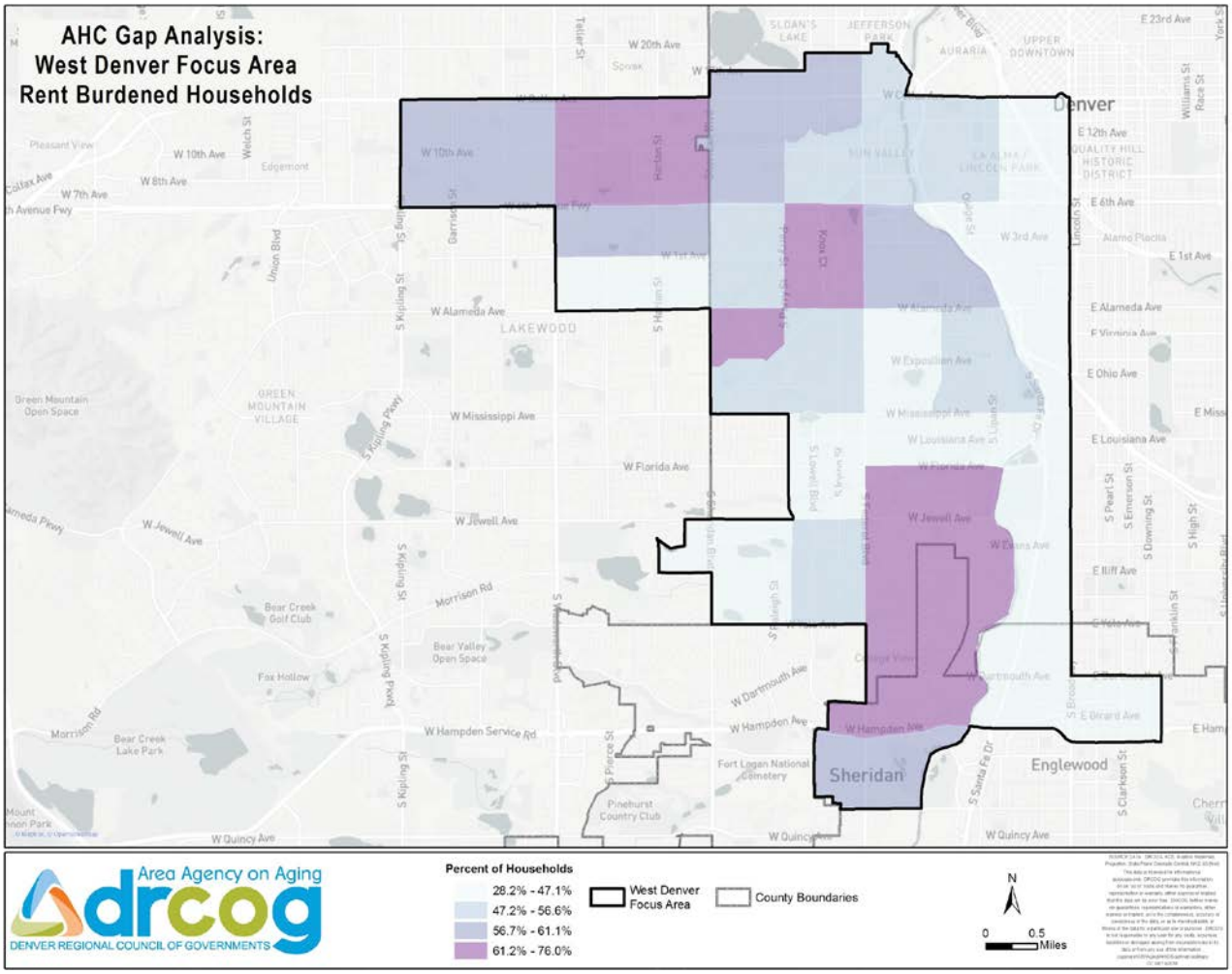


Figure 6A: Share of households for which rent is more than 30 percent of their income – west Denver. Source: U.S. Census Bureau (American Community Survey, 2016).

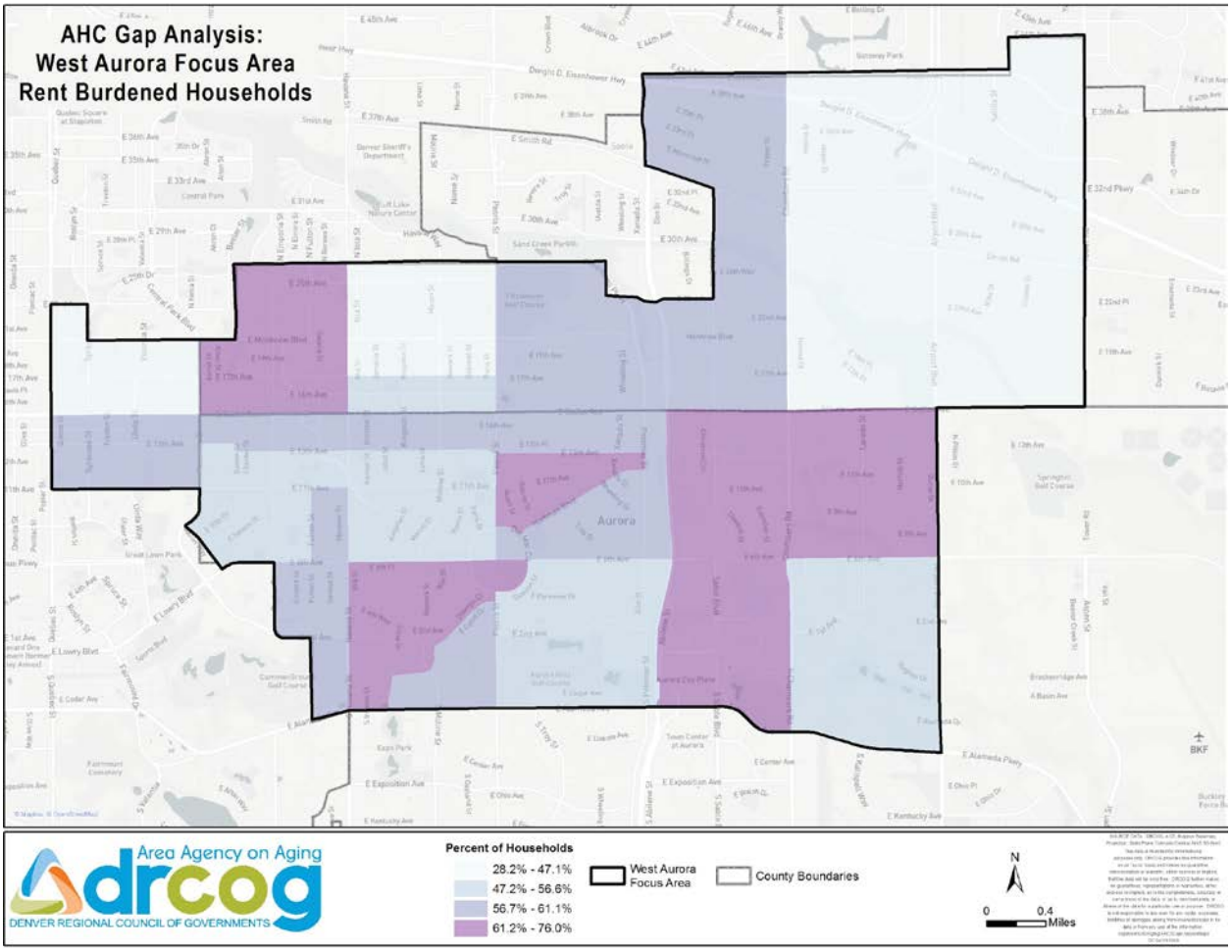


Figure 6B: Share of households for which rent is more than 30 percent of their income – west Aurora. Source: U.S. Census Bureau (American Community Survey, 2016).

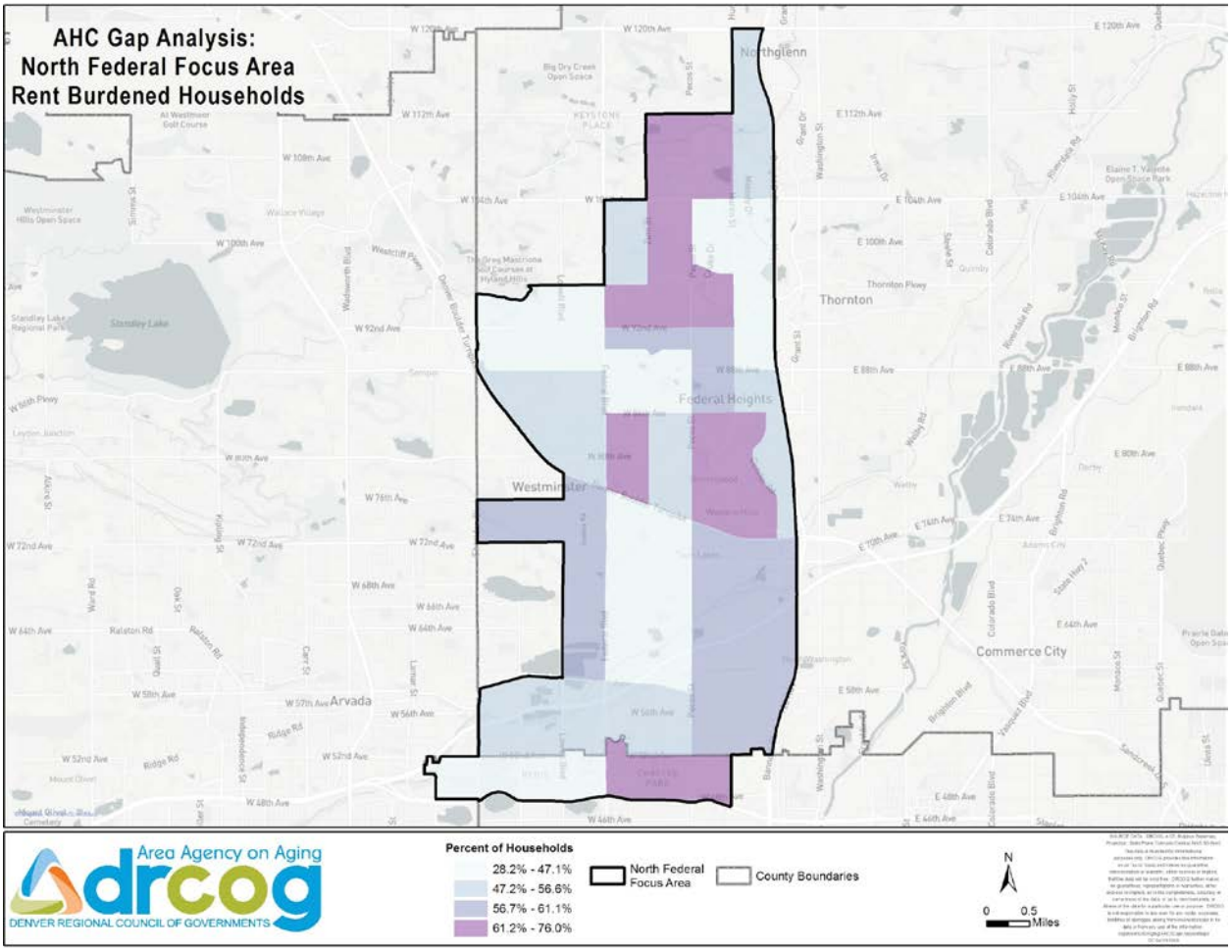


Figure 6C: Share of households for which rent is more than 30 percent of their income – North Federal. Source: U.S. Census Bureau (American Community Survey, 2016).

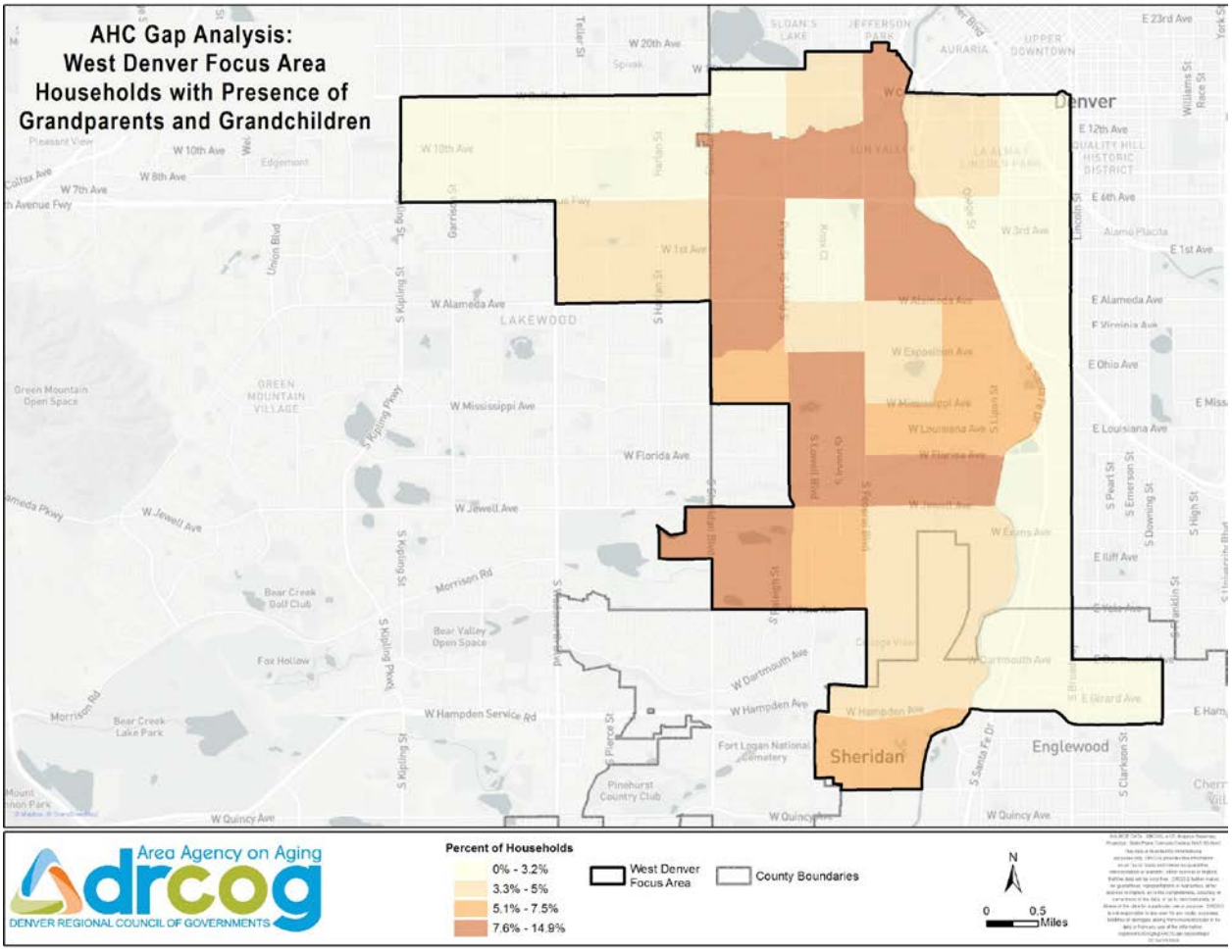


Figure 7A: Share of households where grandparents live with their grandchildren – west Denver. Source: U.S. Census Bureau (American Community Survey, 2016).

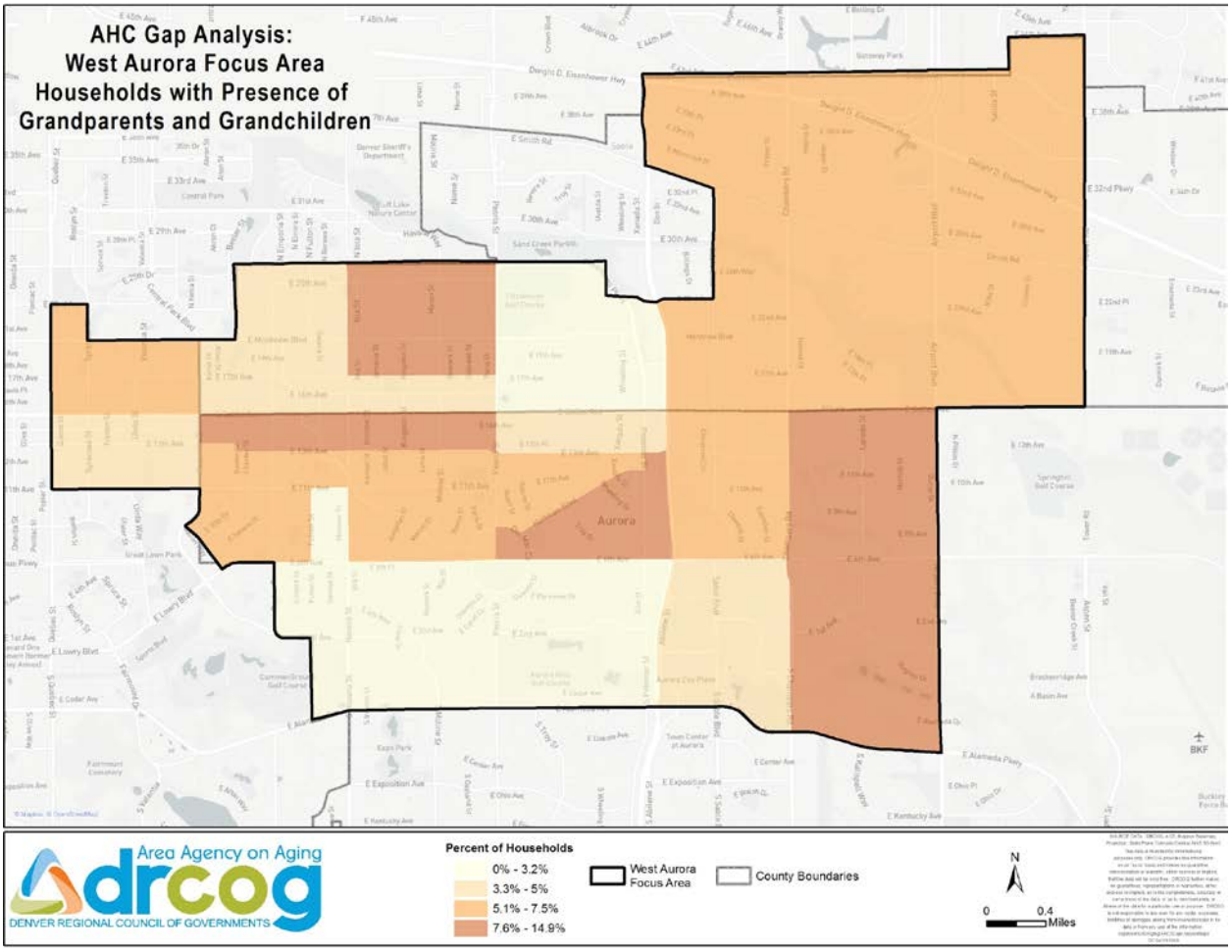
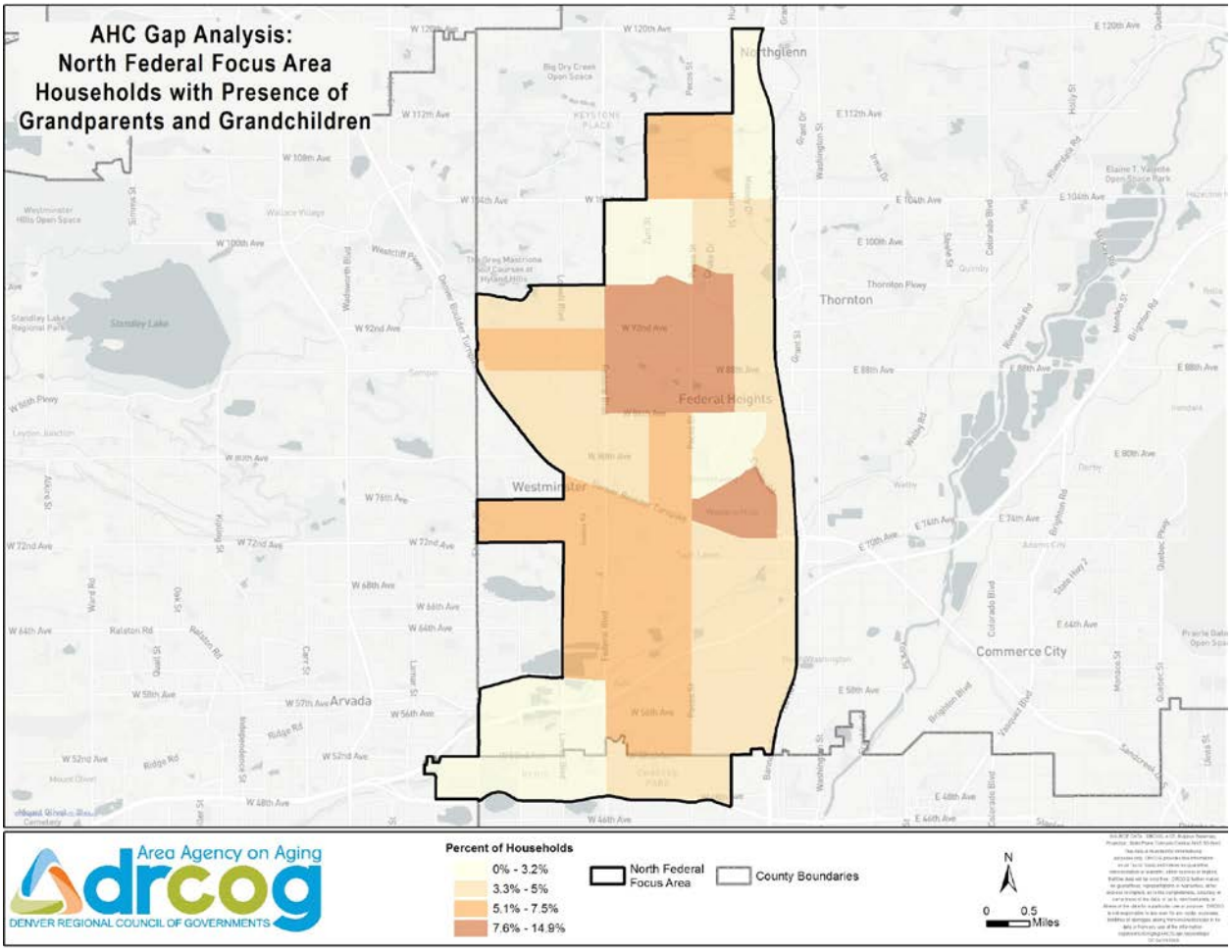


Figure 7B: Share of households where grandparents live with their grandchildren – west Aurora. Source: U.S. Census Bureau (American Community Survey, 2016).



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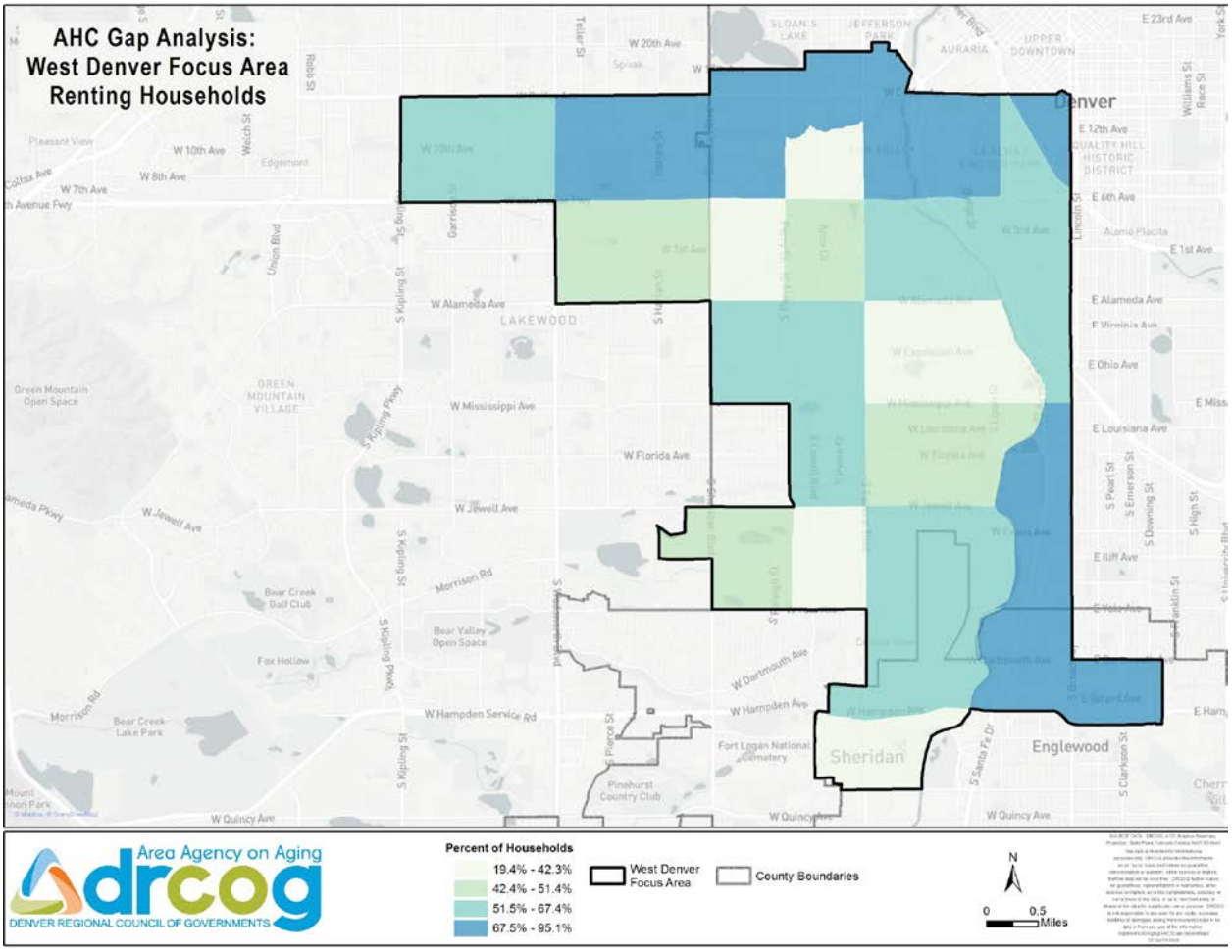

Figure 8A: Share of renters– west Denver. Source: U.S. Census Bureau (American Community Survey, 2016).

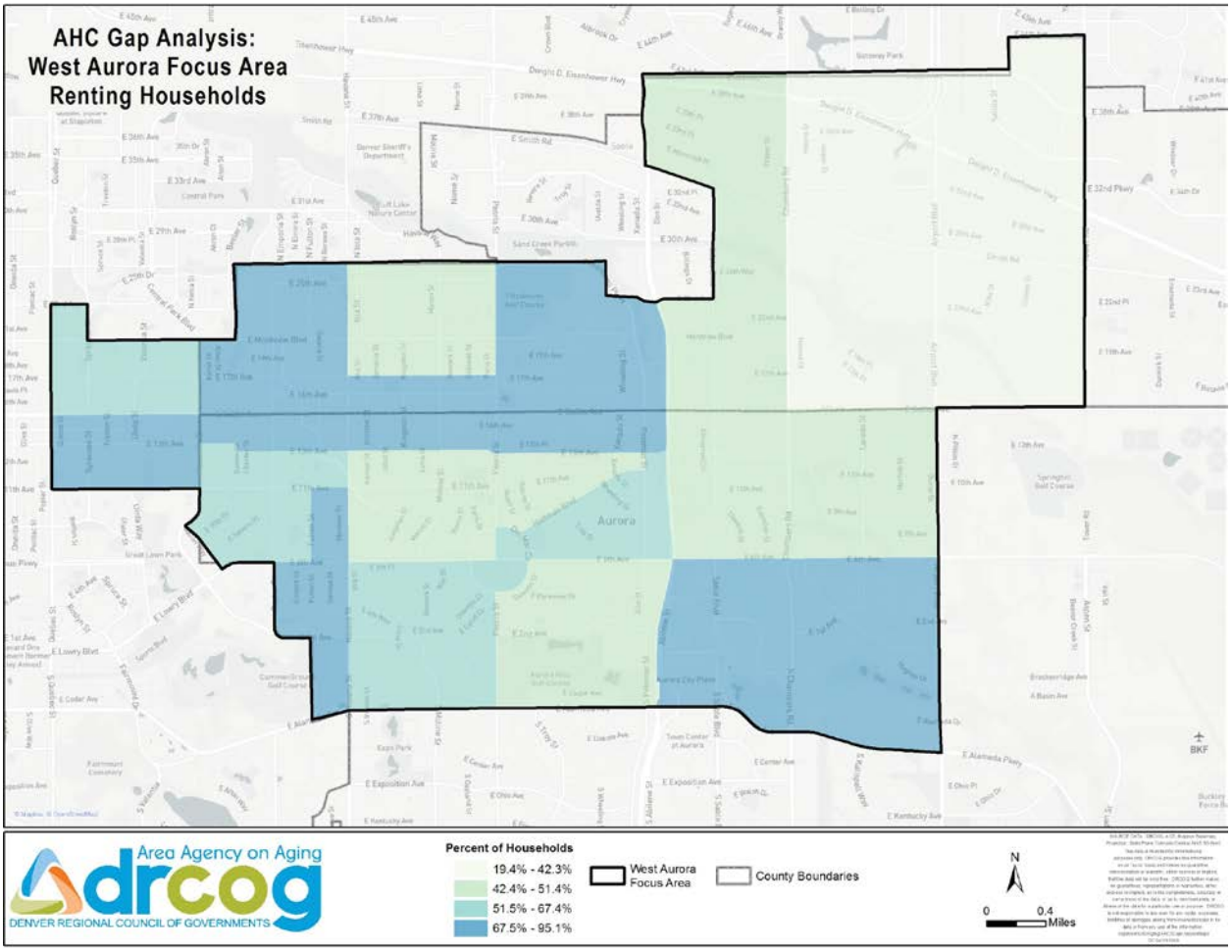

Figure 8B: Share of renters– west Aurora. Source: U.S. Census Bureau (American Community Survey, 2016).

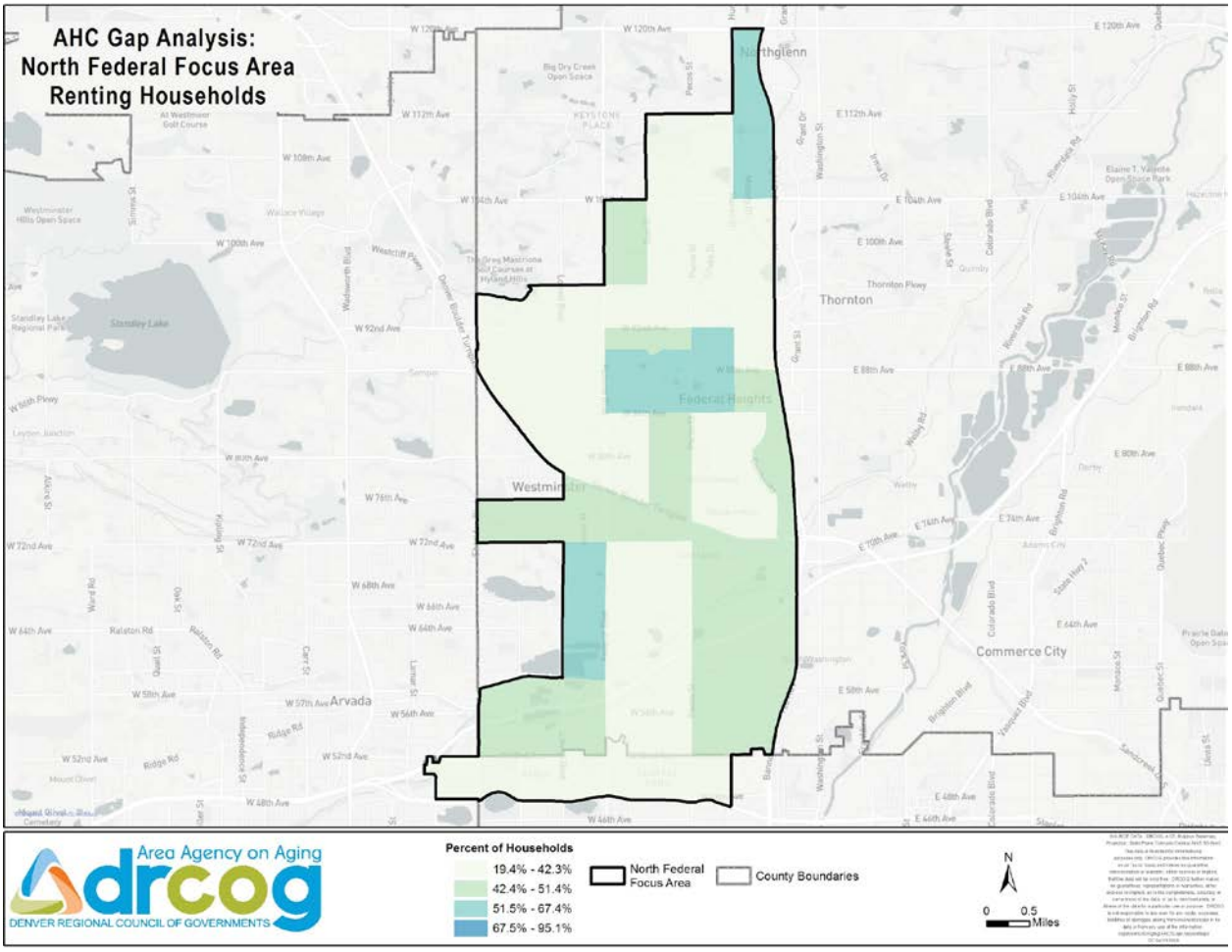

Figure 8C: Share of renters – North Federal. Source: U.S. Census Bureau (American Community Survey, 2016).

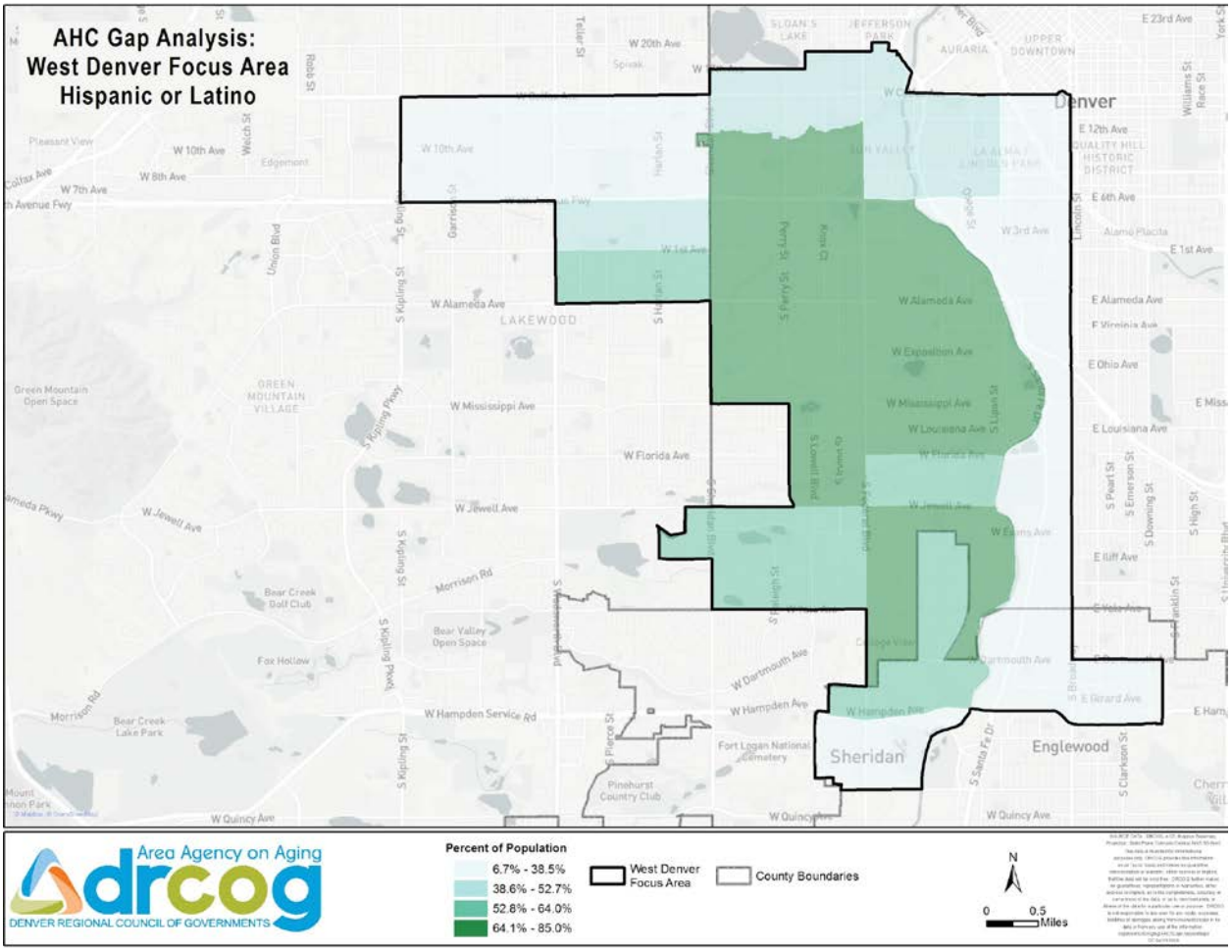

Figure 9A: Share of Hispanic or Latino residents – West Denver. Source: U.S. Census Bureau (American Community Survey, 2016).

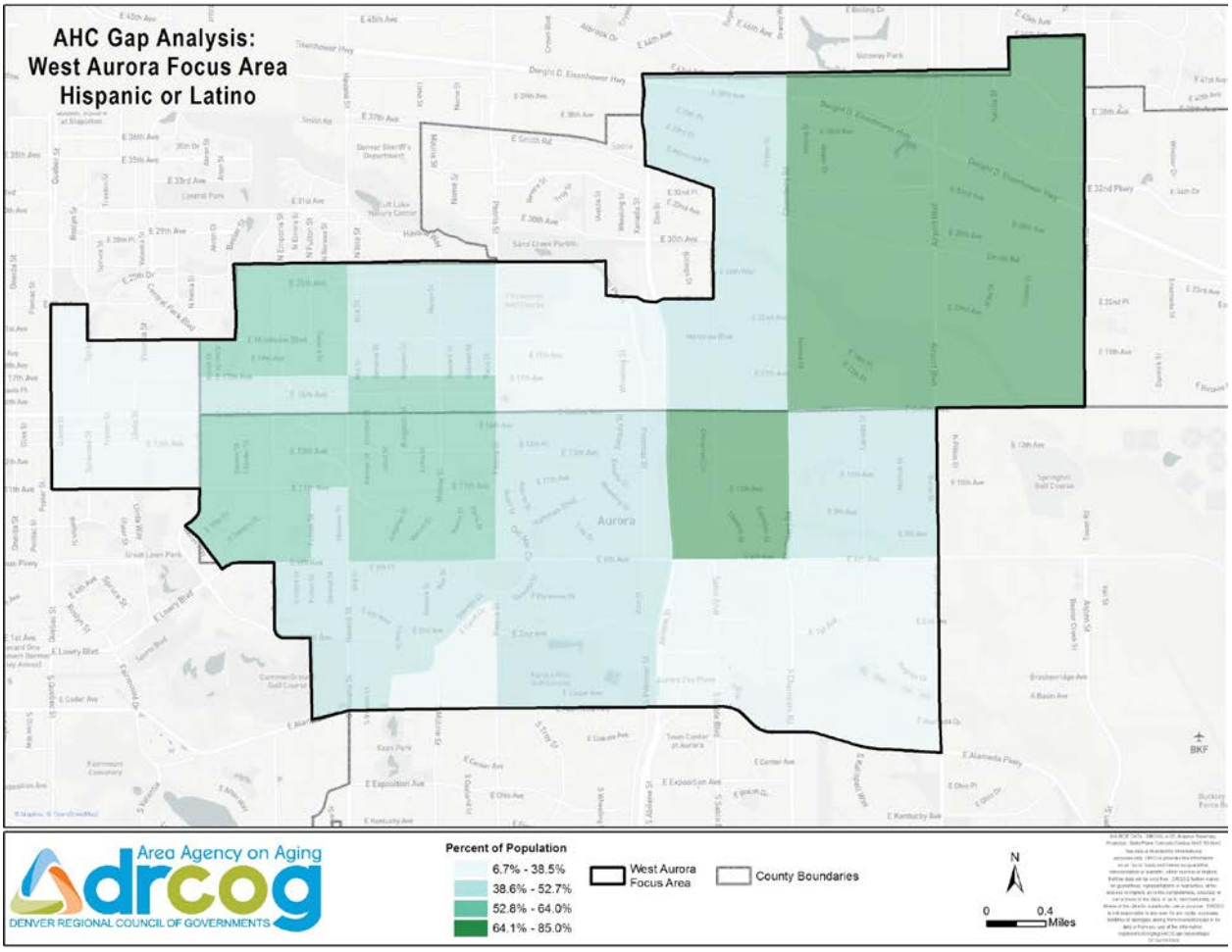

Figure 9B: Share of Hispanic or Latino residents – east Aurora. Source: U.S. Census Bureau (American Community Survey, 2016).

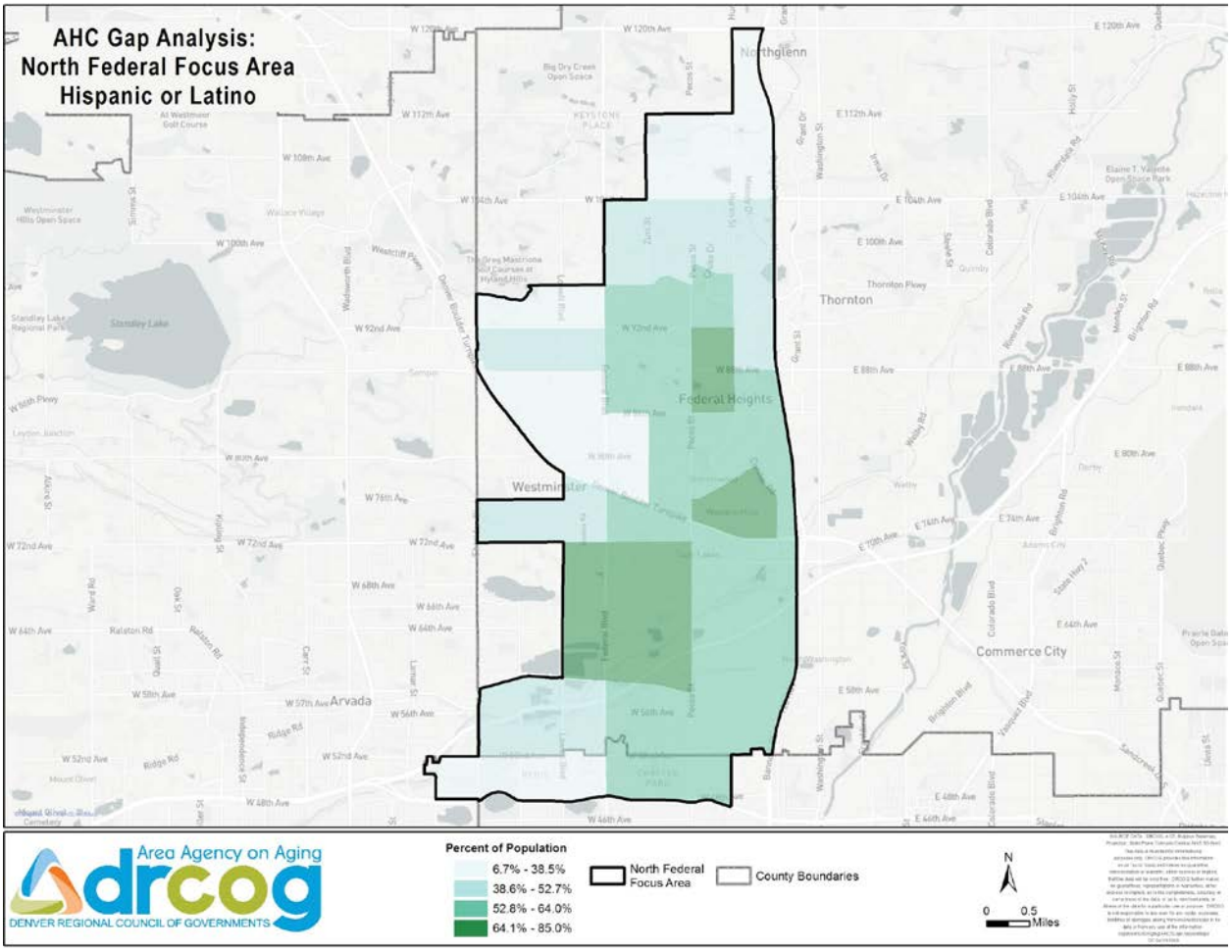

Figure 9C: Share of Hispanic or Latino residents – North Federal. Source: U.S. Census Bureau (American Community Survey, 2016).

Current Neighborhood Changes

In the aftermath of the Great Recession that began in December 2007, significant residential redevelopments in the Denver metropolitan area have transformed low-income residential neighborhoods into higher density, higher income areas. Project staff consider the possibility that the focus areas and their periphery are subject to redevelopment pressure and that low-income populations are at risk of displacement.

Due to the evidence that income is strongly correlated with health status, if the trend of gentrification continues, project staff are likely to see increased health status and decreased health care costs in the focus areas. Redevelopment represents a risk to accurately measuring the long-term success of the AHC intervention, especially if current residents are displaced due to rising rents and property values. If necessary, program staff will adjust the focus areas within the AHC target area to ensure they adequately account for the people who would benefit most from community-based resources to address their health-related social needs.

To monitor potential risks of displacement, program managers explored whether the focus areas and their periphery have been subject to disproportionately larger changes in socioeconomic indicators than the overall AHC target area

(Table 2). The combination of rapid increase in the share of renters and the share of individuals who earn at least a bachelor's degree may be an early sign of gentrification in the west Denver focus area. Significant growth in median rent in east Aurora and in the share of individuals with at least a bachelor's degree may also be interpreted as a sign of neighborhood transformation. However, Table 2 shows that transformation may be a more general trend that extends to the entire AHC target area.

	West Denver	West Aurora	North Federal	AHC Target Area
Population with a Bachelor's Degree or Higher (%)	33.8	13.4	23.7	17.6
Hispanic or Latino (%)	-1.9	-1.2	18.9	-2.4
Renter (%)	15.4	29.3	10.3	9.3
Median income (%)	10.7	5.5	15.0	19.7
Median Rent (%)	19.4	23.9	16.8	28.9

Table 2: Changes in socio-economic indicators between 2009 and 2016. Source: U.S. Census Bureau (American Community Survey, 2016).

Census-based indicators may be partly misleading as reported changes lag actual transformation. However, developers are making substantial residential and nonresidential investments that could be early warnings of neighborhood changes. To track residential and nonresidential investments, DRCOG staff analyzed permit values in the entire Denver metropolitan area. The data revealed:

- significant investments in the northern and eastern areas of the west Denver area (Figure 10A), consistent with the early signs of gentrification in the West Colfax and Jefferson Park neighborhoods,
- investments around Regis University in the North Federal focus area along the Regional Transportation District's B and future G commuter rail lines (Figure 10b) and
- investments along East Colfax and the Regional Transportation District's R light rail line in the west Aurora focus area (Figure 10C).

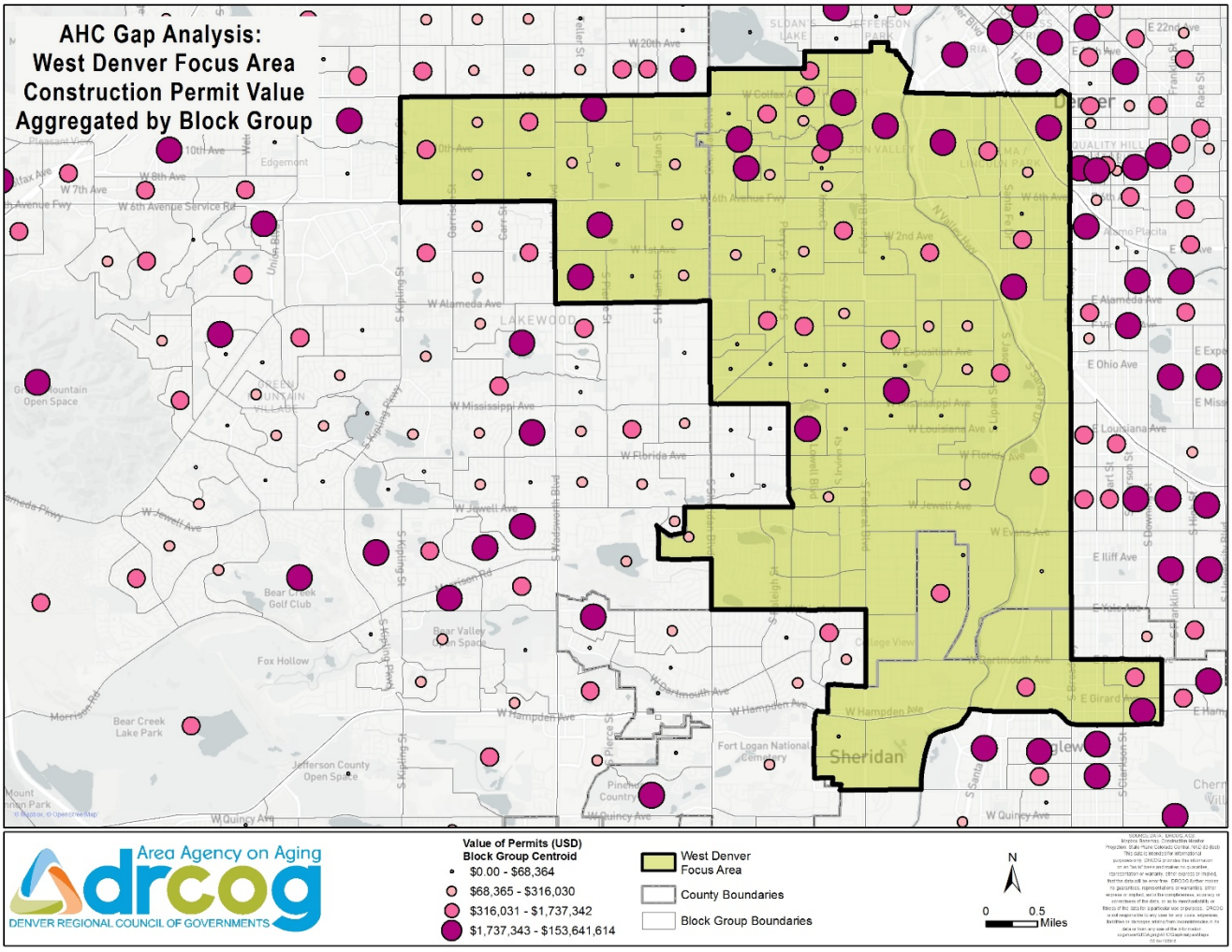

Figure 10A: Value of residential and nonresidential permits in the west Denver focus area. Source: Construction Monitor (2017)

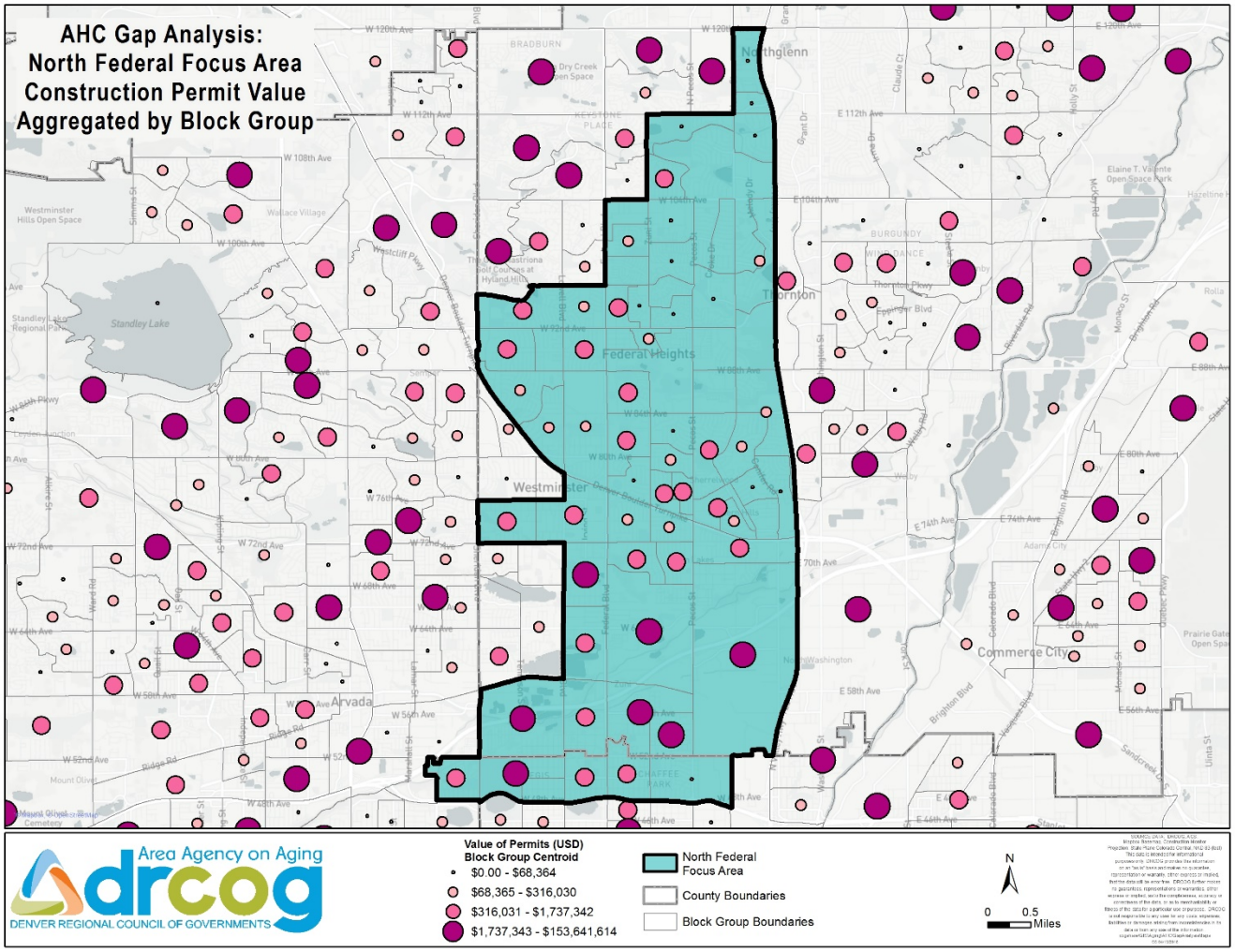

Figure 10B: Value of residential and nonresidential permits in the North Federal focus area. Source: Construction Monitor (2017).

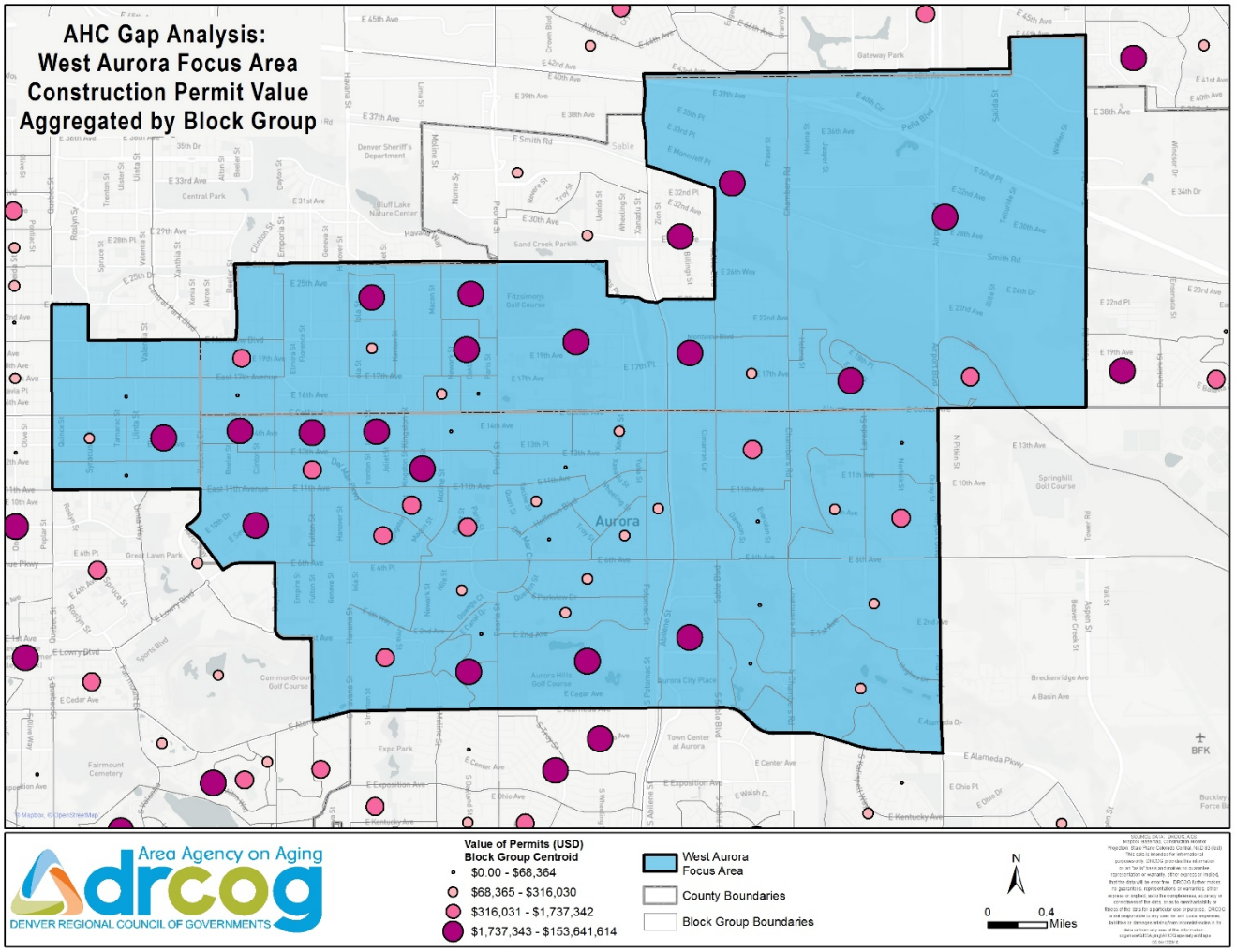

Figure 10C: Value of residential and nonresidential permits in the west Aurora focus area. Source: Construction Monitor (2017).

Conclusion

As a foundation for future work, this gap analysis positions AHC project staff to better focus finite resources on improvement and community alignment efforts that will reap tremendous benefits for the region's communities. In the absence of patient-level data, AHC project staff used Census-based information to identify the neighborhoods, referred to as focus areas in this gap analysis. These focus areas are home to more socially vulnerable and low-income populations than the greater AHC target area. Additional statistics related to trends in health and development confirm the necessity of carefully monitoring future dynamics in the focus areas so the effects of potential neighborhood redevelopments can be considered alongside the effects of the AHC intervention.

Based on this initial analysis, the AHC project will focus its efforts to address the health-related social needs in the AHC target area. This will help AHC project staff better understand the needs of the Denver region and its communities. Further, as results of the AHC's social needs screening and the data from community service providers become available, program staff will pinpoint the locations of service gaps and how the AHC's improvements can support the health of Medicare and Medicaid beneficiaries in the region.

We make life better!
drcog
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