

## Appendix C: Social Determinants of Health – Additional Information

*This appendix contains additional information about influencers of change in the quad-county region, and further information about education and literacy than what is included in the main report.*

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## Influencers of Change

Issues affecting the quad-county region are driven by both local, state and nationwide issues and policies. This section attempts to identify and summarize some of these forces of change.

### Events: one-time occurrences, such as natural disaster or passage of legislation

Elections, both nationally and at the state level, change policies and funding streams to address, support and move toward community solutions. In both states of the quad-county region, barriers to receiving health care are being addressed by coordinated care organizations (Oregon) and accountable communities of health (Washington) but challenges remain. In both states, even in this urban setting, the outlying rural areas experience isolating factors related to both community spaces and isolation.

### Behavioral health

Behavioral health encompasses both mental health and substance use conditions. Behavioral health issues are a continuing need for both resources and coordination in the region. Efforts in the legislature, as well as in health care delivery systems, city and county supports, and community-based organizations continue. Oregon's recent passage of House Bill 4143 (HB 4143) requires a study of barriers to effective treatment for, and recovery from, substance use disorders including opioids and opiates. A report of recommendations is due to the legislature no later than June 30, 2018.<sup>1</sup>

In Washington, SB 6491 aims to increase the availability of assisted outpatient behavioral health treatment. This bill, effective April 1, 2018, also covers many other aspects of crisis responder decisions and involuntary treatment.<sup>2</sup>

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<sup>1</sup> Oregon State Legislature. 2018 Regular Session.  
<https://olis.leg.state.or.us/liz/2018R1/Measures/Overview/HB4143>

<sup>2</sup> Washington State Legislature. SB 6491. 2017-2018.  
<https://app.leg.wa.gov/bills/summary?BillNumber=6491&Year=2017>

### Community representation and culturally responsive care

An issue continually raised during the HCWC listening sessions, as well as in other reports in the region (see the Literature Review in [Appendix D](#)), was the lack of adequate community representation, culturally responsive care, and community spaces. While no specific legislation addresses these issues at a granular level, various regional reports mention these priorities and the work being done to address these disparities by rethinking the systems and structures that created them. Communities have been invited into that conversation.<sup>3</sup>

Clark County and Washington State agencies also continue to focus on diversifying state staff to reflect the communities they serve. Continuing to improve and enhance the equity and inclusion mission by reflecting it in staff and values to better represent, understand, and serve communities.<sup>4</sup> Culturally responsive care is one of the core issues identified in this report. While there is ongoing work this arena, the focus, formality, and rigor differ. It is a known gap and area for improvement in the quad-county region.

### Isolation

Isolation can affect those living not just rural areas, but urban areas as well. Isolation can limit access to services, housing (due to availability, cost or access), transportation, and community places.

No specific legislation addresses all these issues in either state. In Oregon, House Bill (HB) 4130 established a grant program for the Department of Education to award grants to school districts for percentage of transportation costs when the district does not receive any amount from the State School fund related to transit activities. The goal is to have funding for educational transportation in challenged areas.<sup>5</sup>

HB 4010 established a task force to address racial disparities in home ownership – another isolation and equity issue.<sup>6</sup> HB 4006 requires the Housing and Community Services Department to annually provide each city with populations greater than 10,000, data showing the percentage of renter households that are severely rent burdened.<sup>7</sup>

In Washington State, the Clark County Commission on Aging spent a year learning about local transportation and access for senior citizens. Lack of connectivity was an issue as people sought alternatives to driving that wouldn't limit their ability to go about their daily lives, maintain independence, and interact with their community. All recommendations are being evaluated.<sup>8</sup>

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<sup>3</sup> Oregon Metro. Strategic Plan to Advance Racial Equity, Diversity and Inclusion. June 2016.

<https://www.oregonmetro.gov/sites/default/files/2017/10/05/Strategic-plan-advance-racial-equity-diversity-inclusion-16087-20160613.pdf>

<sup>4</sup> Washington State Department of Health. Diversity and Inclusion Council Strategic Plan. Jan.-Feb. 2018.

<https://www.doh.wa.gov/Portals/1/Documents/9400/Diversity%20and%20Inclusion%20Council%20Strategic%20Plan%202017-2018.pdf>

<sup>5</sup> Oregon House Bill 4130. 2018 Oregon Legislative Session. <https://gov.oregonlive.com/bill/2018/HB4130/>

<sup>6</sup> Oregon House Bill 4010. 2018 Oregon Legislative Session. <https://gov.oregonlive.com/bill/2018/HB4010/>

<sup>7</sup> Oregon House Bill 4006. 2018 Oregon Legislative Session. <https://gov.oregonlive.com/bill/2018/HB4006/>

<sup>8</sup> Hastings P. Report Urges Clark County to Help Aging Population Stay Connected to the Community. *The Columbian*. Jan. 2019. <https://www.columbian.com/news/2019/jan/16/report-urges-clark-county-to-help-aging-population-stay-connected-with-community/>

## Housing

Housing continues to be an issue that continues to be addressed, focused on, financed, and collaborated on in the quad-county region. In Oregon, one recent bill, Senate Bill 608 (SB 608), passed in February 2019, makes Oregon the first state in the nation with statewide rent control.

Washington State passed House Bill 1570 concerning access to housing and assistance.<sup>9</sup> This law became effective June 7, 2018.

Additionally, Washington passed SHB 2538, exempting Impact Fees for Low-Income Housing Development, by limiting the definition of “development activity” to exclude shelters for homeless and domestic violence victims for impact fee purposes.

## Trends: Migration and gentrification

In both Oregon and Washington, migration and gentrification are ongoing issues. The State of Washington’s population grew by 1.6% as of April 2018. Migration accounted for 71% of the state’s population growth this year.<sup>10</sup> Clark County, Washington, exceeded Multnomah County for new residents in 2017, growing by 1.95 percent.<sup>11</sup> Ranking sources vary, but Oregon and Washington continue to be in the top 10 “inbound states” in the nation (the most population influx/people moving there).<sup>12</sup> Oregon’s population increased more than 10% between 2000 and 2010, and the Portland Metro area continues to outpace the national average for population growth. As with Washington, the increased population can bring economic stability, but also exacerbate scarcity issues and vulnerabilities.

As regions with historically majority white populations (after settlement) and long histories of racism and discrimination, the increase in diversity is positive for the region. It also exacerbates the positive and negative economic factors the quad-county region is continually trying to tackle. It is an economic boon in some sectors, and increases the needs and impacts to others. Exploding growth has caused housing prices to increase past the reach of many community members, contributing to an increase in houselessness that continues to be a focus for health care delivery, public health, and legislative sectors.

Washington and Oregon continue to have higher than average unemployment and underemployment.<sup>13,14</sup>

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<sup>9</sup> Washington State Legislature. HB 1570. 2017-2018.

<https://app.leg.wa.gov/billsummary?BillNumber=1570&Year=2017>

<sup>10</sup> Washington State Office of Financial Management. Strong population growth in Washington continues. June 2018. <https://www.ofm.wa.gov/about/news/2018/06/strong-population-growth-washington-continues>

<sup>11</sup> Hastings P. Clark County outpaces Multnomah County for new residents. *The Columbian*. Mar. 2018.

[https://tdn.com/news/state-and-regional/clark-county-outpaces-multnomah-county-for-new-residents/article\\_81b6f1ad-ec21-5532-b2a0-e0bc99cfdcb4.html](https://tdn.com/news/state-and-regional/clark-county-outpaces-multnomah-county-for-new-residents/article_81b6f1ad-ec21-5532-b2a0-e0bc99cfdcb4.html)

<sup>12</sup> CNY Central. Movers study: New York ranks fourth in “Most Moved from States.” Jan. 2019.

<https://cnycentral.com/news/local/movers-study-new-york-ranks-fourth-in-most-moved-from-states>

<sup>13</sup> World Population Review. 2019. <http://worldpopulationreview.com/us-cities/portland-population/>

<sup>14</sup> Washington State Office of Financial Management. Unemployment Rates: Washington and U.S.

<https://www.ofm.wa.gov/washington-data-research/statewide-data/washington-trends/economic-trends/unemployment-rates>

### Other forces shaping quad-county region

Natural events also impact lives in the Pacific Northwest. Droughts and other natural disasters affect all communities, especially vulnerable populations. The wildfire season along the West Coast continues to intensify each year at great cost to property, human lives/health, and natural areas. Wildfire smoke exacerbates health concerns and conditions, such as asthma, and flooding displaces many temporarily or permanently from their homes. Climate change patterns are predicted to continue creating more extreme weather patterns that will exacerbate many issues and make them a more constant than intermittent issue. The region continues to grapple with effective planning for predicted earthquakes of significant magnitude.

## Education and Literacy

Education is a powerful driver of wellness and can improve health outcomes, health behaviors, and social outcomes into adulthood.<sup>15</sup> Achievement gaps are evident in children as young as nine months old,<sup>16</sup> suggesting that early childhood services and education are necessary to correct gaps.

This sentiment was echoed by participants in listening sessions who talked about wanting skills and education development to provide better employment opportunities for community members, especially those with limited access to housing or stable income. The education profile of the region includes early childhood education, language, literacy, high school graduation, and higher education.

### Literacy

Literacy is related to multiple facets of health. Limited literacy is a barrier to health knowledge access, proper medication use, and utilization of preventive services.<sup>17,18,19</sup> Individuals with limited literacy face additional difficulties following medication instructions, communicating with health care providers, and attaining health information which may have negative implications for health.<sup>20</sup>

Regarding youth literacy in the region, 56% of students in all grades met the Oregon's English Language Arts standard in 2016–2017. In the same year in Washington's Clark County, 67% of Grade 10 students met the state's English Language Arts standard.

### Early childhood education

Early childhood programs are critical for fostering the mental and physical development of young children. High-quality early childhood development and education programs include highly educated teachers, smaller classes, and lower child-staff ratios. These programs have been shown to increase a child's earning potential later in life and encourage and support educational attainment throughout childhood and into adulthood. Between 2012 and 2016, 6.5% of preschool age children were enrolled in nursery school or preschool across the region (note: this does not include day care or other sorts of child care; just preschools and nursery schools).

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<sup>15</sup> Robert Wood Johnson Foundation. Can Early Childhood Interventions Improve Health and Well-Being? Mar. 2016. <https://www.rwjf.org/en/library/research/2016/03/can-early-childhood-interventions-improve-life-outcomes-.html>

<sup>16</sup> <http://allhandsraised.org/content/uploads/2012/10/AN20UNSETTLING20PROFILE.pdf>

<sup>17</sup> Andrulis DP, Brach C. Integrating literacy, culture, and language to improve health care quality for diverse populations. *Am J Health Behav.* 2007; 31(Suppl 1): S122-S133.

<sup>18</sup> Kripalani S, Henderson LE, Chiu EY, Robertson R, Kolm P, Jacobson TA. Predictors of medication self-management skill in a low-literacy population. *J Gen Intern Med.* 2006; 21(8): 852–56.

<sup>19</sup> Berkman ND., Sheridan SL, Donahue KE, Halpern DJ, Viera A, Crotty K, Holland A. Health literacy interventions and outcomes: an updated systematic review. 2011; 1-941. Report no.: 199.

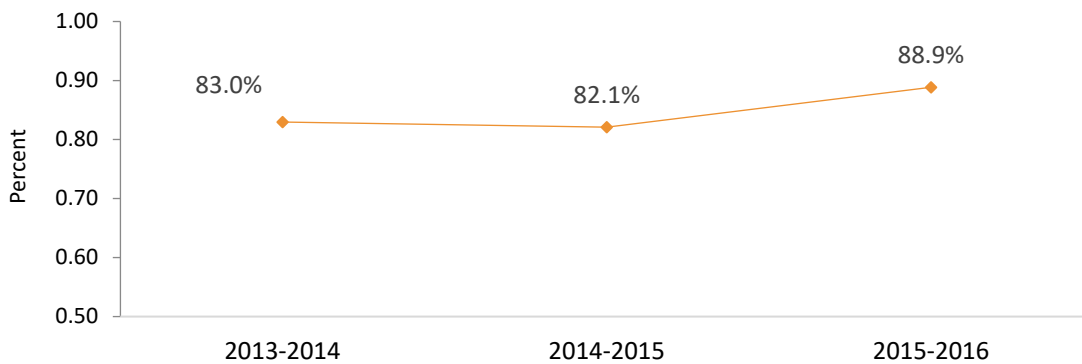
<sup>20</sup> Williams MV, Baker DW, Honig EG, Lee TM, Nowlan A. Inadequate literacy is a barrier to asthma knowledge and self-care. *Chest.* 1998; 114(4):1008–15.

### High school graduation

Increased educational attainment provides individuals with the opportunity to earn a higher income and gain access to better living conditions, healthier foods, and health care services.<sup>21-22</sup> Moreover, the employment prospects and lifelong earning potential are better for high school graduates.<sup>23</sup>

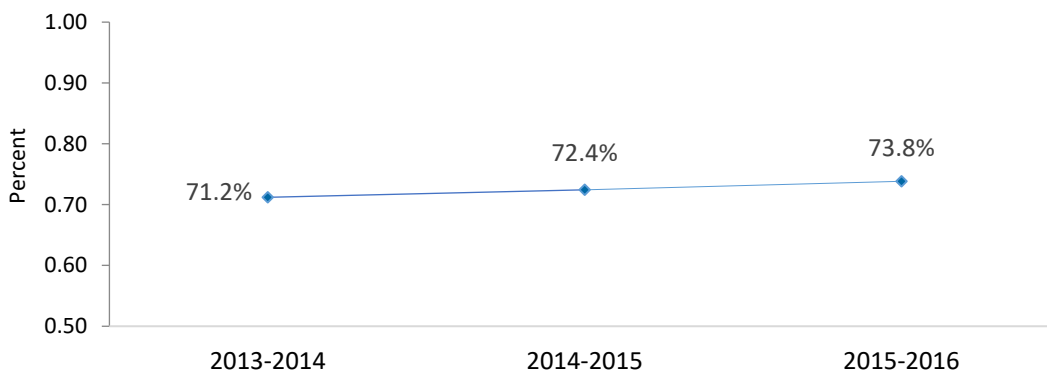
As shown in Figure C-1, five-year graduation rates in Clark County, Washington, have been increasing since 2013.

**Figure C-1. Five-Year Graduation Rate in Clark County.**



Source: Washington Office of Superintendent of Public Instruction.

**Figure C-2. Four-Year Graduation Rate in Clackamas, Multnomah, and Washington Counties.**



Source: Oregon Department of Education.

<sup>21</sup> Ross CE, Wu CL. The links between education and health. *Am Sociol Rev.* 1995; 60(5):719–45.

<sup>22</sup> Day JC, Newburger EC. The big payoff: educational attainment and synthetic estimates of work-life earnings. Special Studies. Current Population Reports. Washington (DC): U.S. Census Bureau; 2002. Report No.: P23-210.

<sup>23</sup> Levin H, Belfield C, Muennig P, Rouse C. The costs and benefits of an excellent education for all of America’s children (Vol. 9): Teachers College, Columbia University New York; 2007.

Higher education

Higher education can lead to improved health and well-being through a positive impact on employment options, better-paying jobs with fewer safety hazards, and better access to housing.<sup>24</sup> Higher education also can lead to improved health and well-being.<sup>25</sup> Individuals with more education are less likely to report chronic conditions including heart disease, high blood pressure, diabetes, anxiety, and depression.<sup>26</sup>

Across the quad-county region, nearly half of the population has at least an associate’s degree and almost one quarter of the population has a bachelor’s degree (see Table C-1).

**Table C-1. Higher Education in the Region.**

Degree	n	%
Associate	11,838	8.9%
Bachelor	78,748	23.9%
Graduate or professional degree	31,279	14.7%
<b>Total</b>	<b>121,865</b>	<b>47.5%</b>

Source: American Community Survey 5-Year estimate (2012–2016).

<sup>24</sup> Kawachi I, Adler NE, Dow WH. Money, schooling, and health: mechanisms and causal evidence. *Ann NY Acad Sci.* 2010; 1186(1):56–68.

<sup>25</sup> Cutler DM, Lleras-Muney A. Education and health: evaluating theories and evidence. No. W12352. Cambridge (MA): National Bureau of Economic Research; 2006.

<sup>26</sup> Cutler DM, Lleras-Muney A. Education and health: evaluating theories and evidence. No. W12352. Cambridge (MA): National Bureau of Economic Research; 2006.