

Ratio of primary care physicians and prevalence of metabolic syndrome: Health disparities in Washington



To what extent do disparities of primary care physicians' supply and prevalence of chronic diseases, such as metabolic syndrome, exist in Washington?

Chronic Diseases and Primary Care

Chronic diseases are priority health problems. Metabolic syndrome is a form of chronic disease in which at least three of the following conditions are simultaneously present in an individual: obesity, hypertension, hyperglycemia, or dyslipidemia. Conditions that form metabolic syndrome are potentially preventable. Health care services provided by primary care physicians are instrumental in minimizing the burden of metabolic syndrome.

Urban and Rural Disparities

Prevalence of Metabolic Syndrome (percent)

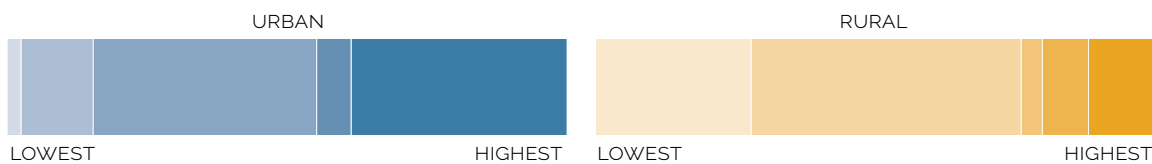
9 URBAN **10** STATE **11** RURAL

Primary Care Physicians (per 100,000 population)

54 RURAL **82** STATE **85** URBAN

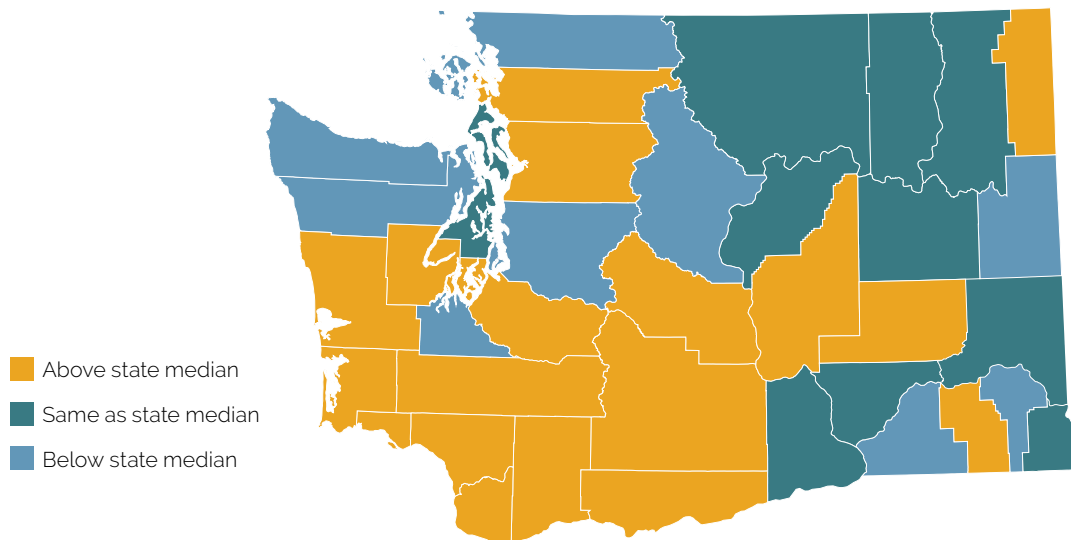
Rural areas have higher prevalence of metabolic syndrome and lower supply of primary care physicians.

Percentage of metabolic syndrome cases across quintiles of primary care physicians ratio depicts rural counties at a disadvantage.



The majority (76%) of rural residents who have metabolic syndrome are served by the two lowest quintiles of primary care physicians ratio.

Burden of Chronic Diseases by County



Out of five risk factors, the median number of risk factors in Washington was three. The number of risk factors varies by county. Eighteen counties have above, 11 counties same as, and 10 counties below the state median value.

In Washington, disparities of primary care providers' supply and prevalence of metabolic syndrome exist. The toll is worse for rural counties on both measures.

Public Health Approach

Proactive health promotion, prevention, early detection, prompt treatment, referral, and care coordination services are vital for optimal health. Primary care providers' recruitment, placement, and retention efforts are critical in maintaining robust local systems of care.

DATA SOURCES:
Washington State Behavioral Risk Factor Surveillance System (BRFSS 2013, 2015 and 2017) data combined.

2017–2018 release of Area Health Resource File (AHRF) data for 2016.

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Social determinants of health play a role in the disparities of metabolic syndrome.

Social Determinants of Health

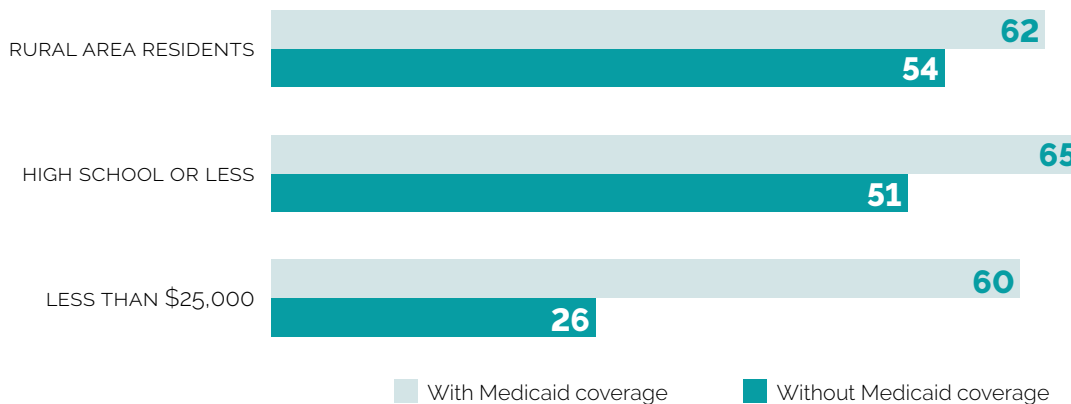
Factors outside of the health care system influence a larger portion of the health status of individuals and communities, including the magnitude and distribution of metabolic syndrome. Those factors, such as income and education, are commonly referred to as social determinants of health. The impact of proactive engagement of communities and holistic policy choices on social determinants of health is critical.

Prevalence of metabolic syndrome was greater among respondents with Medicaid coverage.



Those with Medicaid coverage exhibit a greater high-risk profile, due in part to the aggregation of social determinants of health.

Among those residing in counties with the lowest primary care physicians ratio, a greater aggregation of social determinants of health was observed in those with Medicaid coverage.



Increasing quintile levels of primary care physicians' ratio was associated with a decreasing occurrence of metabolic syndrome among those without Medicaid coverage. However, such a benefit was lacking among those with Medicaid coverage.

Social determinants of health, such as lower level of education and income, play a role in the disparities of metabolic syndrome. The aggregation of social determinants of health in an individual or a community could unfavorably influence both the occurrence of metabolic syndrome and the potential benefit from a greater supply of primary care physicians in an area.

Addressing Social Determinants of Health

Maintaining a robust local system of care alone may fall short of achieving the possible maximum benefit in reducing the burden of metabolic syndrome. Maximum benefit could likely be achieved if robust local health care systems are designed to enhance capabilities of primary care physicians to provide comprehensive primary care, by proactively addressing social determinants of health. Sustainable improvement of the health status of individuals and the population would need engagement of communities and policymakers.

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