

User-centric + inclusive design

April Webster
@shebikesinthecity

Who?



Making room
for people
in our streets

All Ages and Abilities

Children



School-age children are an essential cycling demographic but face unique risks because they are smaller and thus less visible from the driver's seat than adults, and often have less ability to detect risks or negotiate conflicts.

Seniors



People aged 65 and over are the fastest growing population group in the US, and the only group with a growing number of car-free households. Seniors can make more trips and have increased mobility if safe riding networks are available. Bikeways need to serve people with lower visual acuity and slower riding speeds.

Women



Women are consistently under-represented as a share of total bicyclists, but the share of **women riding increases in correlation to better riding facilities**. Concerns about personal safety including and beyond traffic stress are often relevant. Safety in numbers has additional significance for female bicyclists.

People Riding Bike Share



Bike share systems have greatly expanded the number and diversity of urban bicycle trips, with **over 28 million US trips in 2016**. Riders often use bike share to link to other transit, or make spontaneous or one-way trips, placing a premium on comfortable and easily understandable bike infrastructure. Bike share users range widely in stress tolerance, but overwhelmingly prefer to ride in high-quality bikeways. All Ages & Abilities networks are essential to bike share system viability.

People of Color



While Black and Latinx bicyclists make up a rapidly growing segment of the riding population, a recent study found that **fewer than 20% of adult Black and Latinx bicyclists and non-bicyclists feel comfortable in conventional bicycle lanes**; fear of exposure to theft or assault or being a target for enforcement were cited as barriers to bicycling. Long-standing dis-investment in street infrastructure means that **these riders are disproportionately likely to be killed by a car than their white counterparts**.

Low-Income Riders



Low-income bicyclists make up half of all Census-reported commuter bicyclists, relying extensively on bicycles for basic transportation needs like getting to work. In addition, basic infrastructure is often deficient in low-income neighborhoods, exacerbating safety concerns. An All Ages & Abilities bikeway is often needed to bring safe conditions to the major streets these bicyclists already use on a daily basis.

Who?



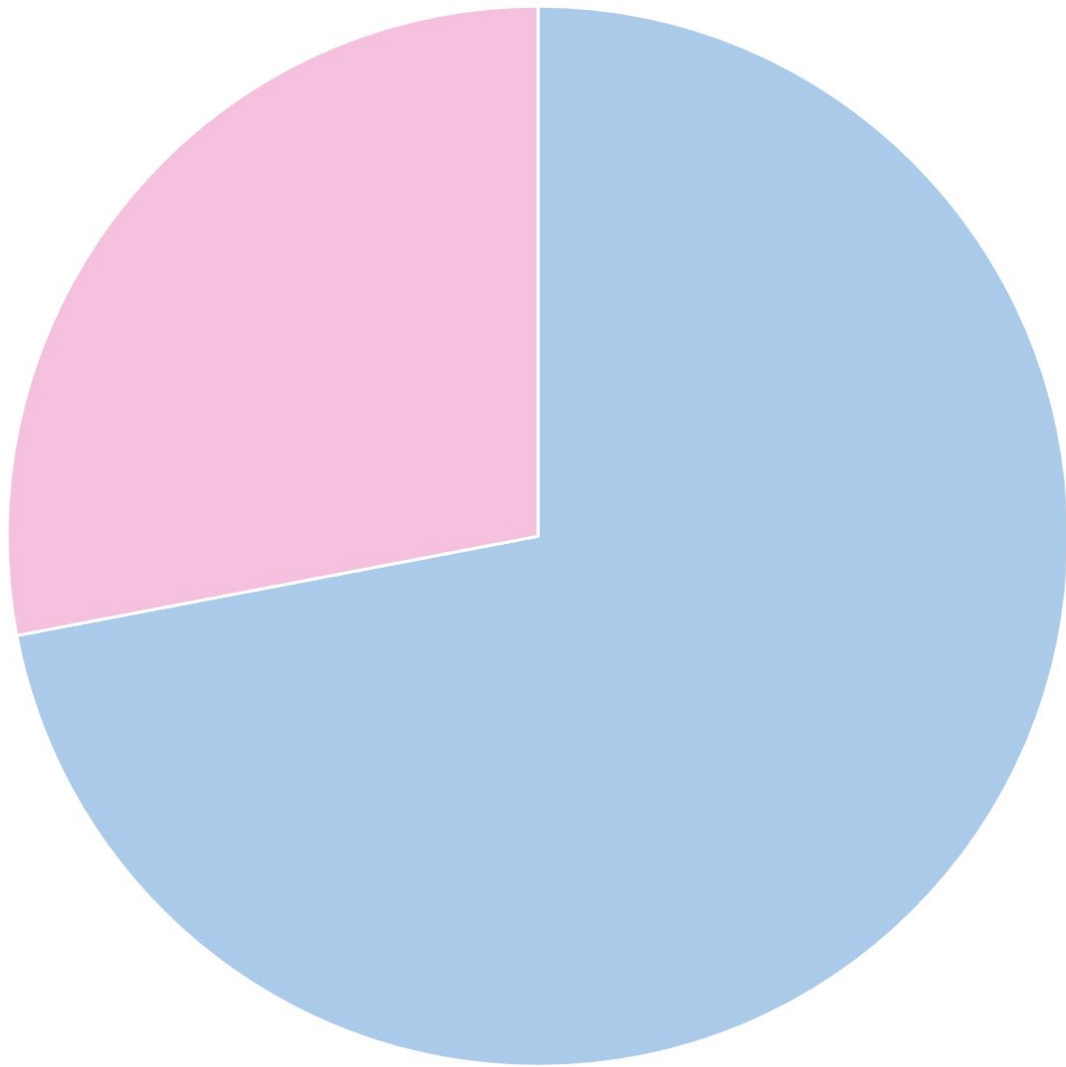
~~Who?~~



‘All Ages and Abilities’: exploring the language of municipal cycling policies

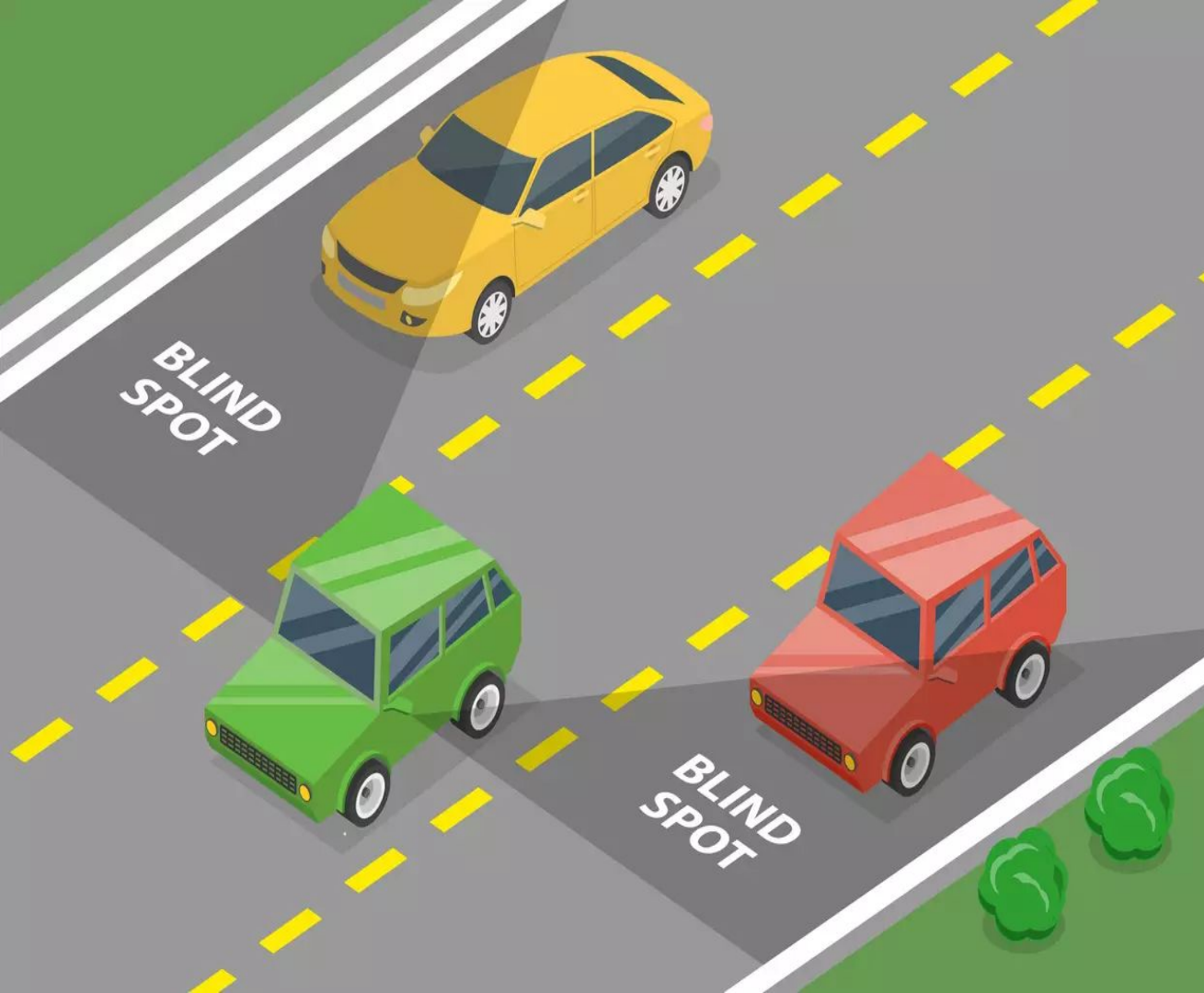
Karen Laberee ^a, Moreno Zanotto ^a, Alison Funk^a, Sara F. L. Kirk ^{b,c},
Sarah A. Moore ^{b,c} and Meghan Winters ^a

^aHealth Sciences, Simon Fraser University, Burnaby, British Columbia, Canada; ^bHealth, Dalhousie University, Halifax, Nova Scotia, Canada; ^cHealthy Populations Institute, Dalhousie University, Halifax, Nova Scotia, Canada



gender participation

MIND THE GAP



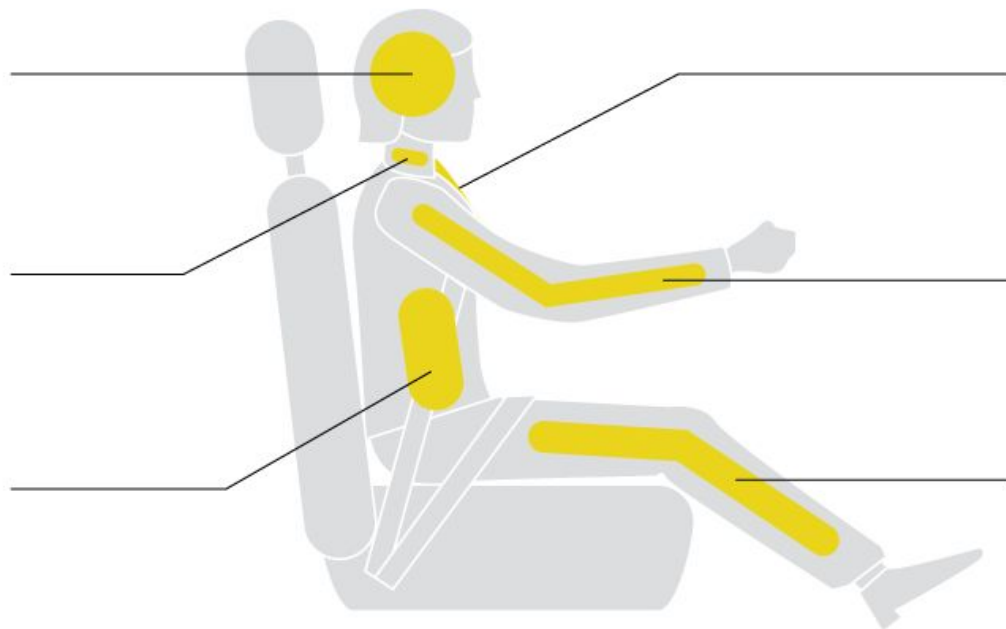
Male
as
default



$\pm 16.0\%$ Head
22.1%
higher risk than males

$\pm 34.0\%$ Neck
44.7%
higher risk than males

$\pm 28.4\%$ Abdomen
38.5%
higher risk than males



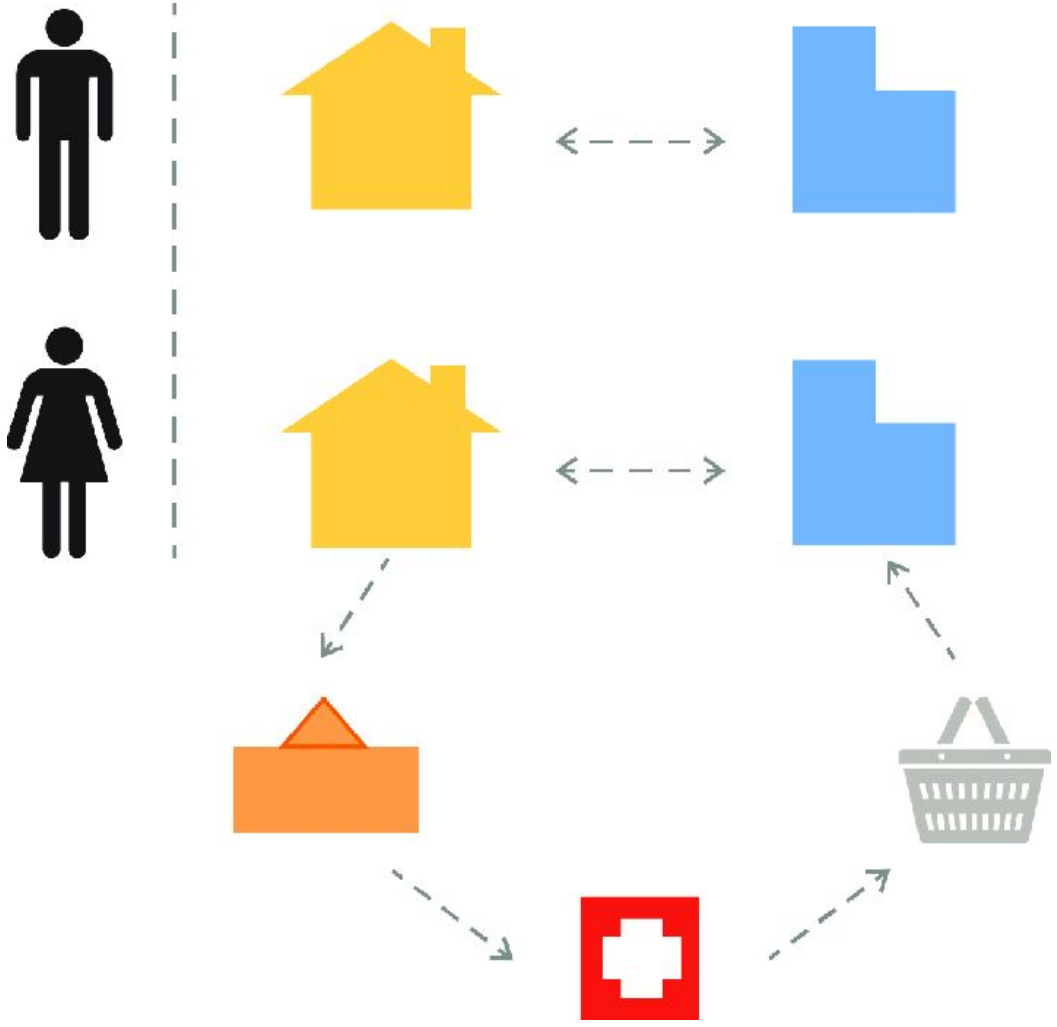
Chest $\pm 13.6\%$
26.4%
higher risk than males

Arm $\pm 20.6\%$
58.2%
higher risk than males

Leg $\pm 16.3\%$
79.7%
higher risk than males







**CALL TO
ACTION**





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