



SCHOOL OF PUBLIC HEALTH
UNIVERSITY of WASHINGTON



AUTONOMOUS VEHICLE – HEALTH AND EQUITY SUBCOMMITTEE

PRESENTED AT
AUTONOMOUS VEHICLE EXECUTIVE COMMITTEE
NOVEMBER 12, 2020

Dr. Andrew Dannenberg, UW School of Public Health

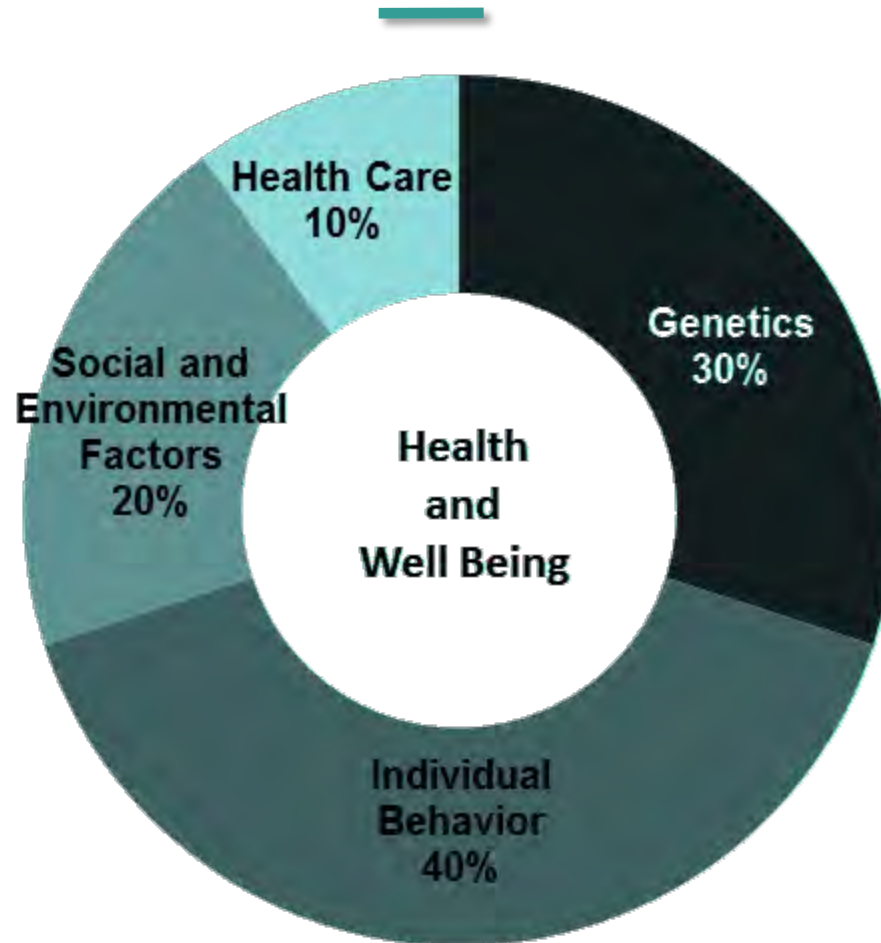
AV Health & Equity Subcommittee Update

Goal: Ensure the health benefits of automated mobility are equitably distributed and that negative impacts are not disproportionately borne by traditionally marginalized communities.

Established by WSTC on **July 2019**

Holding Monthly Microsoft Teams Meetings & Work Group Meetings

Determinants of Health



SOURCE: Schroeder, SA. (2007). We Can Do Better — Improving the Health of the American People. *NEJM*. 357:1221-8.

Key Topics to Address – AVs & Equity

- **Access by All Income Levels** – If low-income areas have less AV service, high income populations would receive the benefits while low-income populations may be harmed by reduced access to goods, services, and jobs
- **Detection for Persons of Color** - Current pedestrian detection systems in AVs perform less well for people of color, subjecting them to higher risk of injury as pedestrians
- **Disparities in Infrastructure Quality** - Disadvantaged areas may have poorer infrastructure, such as more potholes or faded lane markers, so AVs may avoid such areas or function less safely in those areas
- **Shared Services** – Acceptance of shared services may be reduced by racism in some areas
- **Cost of Services** - Persons in low-income areas may be less able to afford to use AVs unless subsidized

Key Topics to Address – AVs & Equity (cont.)

- **Equitable Distribution of Services** - Travel times for high- and low-income persons may be inequitable, depending on the geographic areas served by AVs and the locations of electric charging stations
- **Access to Electronic Devices** - Some low-income persons lack smart phones and credit cards needed to access AVs
- **Community Needs & Priorities** - Disadvantaged populations may prefer and would benefit from different transportation infrastructure investments than those that facilitate AV use
- **Education & Outreach** – For disadvantaged populations, education about AV use needs to be conducted at an appropriate level of reading comprehension and in multiple languages

Health and Equity Subcommittee Recommendations

#1 Conduct Structured Public Outreach

Background

- **Traditionally marginalized communities including people of color and people in disinvested areas may suffer from inequitable impacts when AVs are tested and implemented in Washington**
- **Such communities are not well represented among decision-makers who are setting AV policies**
- **Outreach to such communities is essential to better understand their access, mobility, and health needs**

Health and Equity Subcommittee Recommendations

#1 Conduct Structured Public Outreach

Proposal #1

- Conduct a structured public engagement process to better understand the health, equity, and access needs of traditionally marginalized communities in relation to AVs
- Outreach would include education about AVs, presentation of scenarios involving AV use, and feedback from community participants
- Report findings and recommendations would be provided to WSTC to inform decisions
- Estimated cost: \$30,000

Health and Equity Subcommittee Recommendations

#1 Conduct Structured Public Outreach

Impact

- **With robust public engagement, it may be possible to prevent or reduce inequitable consequences that may be associated with the testing and deployment of AVs**
- **Results would assist policy makers and industry to meet the mobility and access needs of traditionally marginalized communities**

Health and Equity Subcommittee Recommendations

#2 Identification of Testing Locations

Background

- **Current law RCW 46.30 requires only provision of (a) AV company contact info, (b) name of city/county where testing to be done, (c) vehicle ID numbers, and (d) proof of insurance, prior to pilot testing AVs on Washington streets and highways**
- **Depending on locations selected, pilot testing may have inequitable health and safety impacts on traditionally marginalized communities**

Health and Equity Subcommittee Recommendations #2 Identification of Testing Locations

Proposal #2

- **Amend RCW 46.30 to require that planned testing locations at the Zip code or Census tract level be provided to the state prior to pilot testing on Washington roads**
- **This information would be used by WSDOT and DOH to examine the demographics and equity considerations of areas where testing is planned**

Health and Equity Subcommittee Recommendations

#2 Identification of Testing Locations

Impact

- Identification of testing locations at Zip code or Census tract level would help facilitate equitable distribution of benefits to all populations and reduce potential adverse impacts of AV testing in marginalized communities
- Results would be used to inform future decision-making about state AV policies
- Information would not be used to regulate where AV testing should or should not be done

Questions?

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