Achieving transportation equity

Achieving transportation equity: How can we support young people's autonomy and health in a rapidly changing society?

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Earning a driver's license has historically been described as a rite of passage for young people, signifying a key transition towards greater independence- but the freedom to drive unsupervised also marks the time period when crash rates among young drivers are at their highest. Prior research has shown an emerging trend of later licensure, such that young people are earning driver's licenses at older ages, and that sociodemographic factors such as being a member of a racial minority group and having lower family economic status contributed to later licensure [1,2]. Factors that place teens at a disadvantage for independent mobility can be concerning if they have a negative downstream effect. A delay in licensure that perpetuates or otherwise confers health inequities is problematic. In addition, delaying long enough to "age-out" of graduated driver licensure provisions (i.e. age 18 years) may take away needed protection.

In a new study among emerging adults, Gao and colleagues [3] found that promptly moving through licensure (i.e., not delaying licensure) was associated with "better self-reported health, higher education, and more working hours four years after leaving high school," compared with emerging adults who were not licensed as soon as they were age-eligible, even after adjusting for important sociodemographic variables. The analyses did not explicate why teens delayed or how long they delayed for or speak to bidirectional associations. For example, it may be that young people with greater self-determination [4], trait-level conscientiousness [5], and opportunity [6] identified that they needed a license to achieve their goals, earned it, and this underlying motivation also "drove" them onward to other opportunities that beget positive outcomes like good health. Or it could be the independent license afforded them with critical mobility they needed to connect with resources like health care or other assets to positive health outcomes they couldn't otherwise access. Of course, these explanations are not mutually exclusive and illuminating these (or other) processes is an important avenue for future research.

Importantly, just because a transition in transportation-related milestones *can* happen, does not mean it has to occur right at the moment of legal eligibility. Consider the analogous scenario of the transition of a child in a rear-facing child restraint system to a forward-facing five-point restraint, later to a booster seat and from there to an adult safety belt. A U.S. state law may allow a transition out of a particular child restraint system at a given age; for example, a law may require children under age 2 years be restrained in a rear-facing child restraint system. However, best practice recommendations are to keep a child in a system longer up to the age of 4 years and until they grow out of the child restraint system [7]. Families are known to deviate from state child passenger safety laws because of practical concerns, the child's behaviors, or caregivers' safety conscious behaviors. Similar processes are likely underway for adolescents and emerging adults negotiating the licensure pathway whereby the practicalities of day-to-day life and human behavior do not always align with one-size-fits all policies.

The interactions between individual differences and contextual factors are complex and highly heterogeneous [8]. For some young people, it may be protective to wait; more time for supervised practice driving may be needed to improve driving skill and handling of diverse and complex driving situations [9]. Other young people may need more time to develop their judgment and decision-making skills in and out of the car, and aren't quite ready to handle distractions like cellphones, friends in the car, or social situations involving alcohol and driving.

Young people with physical and mental health symptoms/diagnoses such as anxiety, brain-injuries, ADHD, and autism, may have very individualized paths and care concerns [10–13].

Societal changes are important to consider as well. Young people are becoming active in environmental causes and are knowledgeable about pollution from motor vehicles [14]. Social norms around safe travel and the access to quality transportation infrastructures are changing globally. What might have been considered a hallmark of adolescence, and important rite of passage, may not be the case within 5 to 10 years, if not already. Access to greener and more accessible public transport along with an emphasis on active travel may move young people away from licensure in greater numbers. These changes highlight the need to consider how transportation policies like graduated driver licensure regulations may need to adapt to changing transportation norms and infrastructures. For example, a consistently under-researched area includes young people's experiences in and preferences for transportation systems in Low and Middle-Income Countries [15]. Although youth in some communities benefit from improved infrastructures, others may be cloistered in under-resourced areas without a fit-for-purpose transportation infrastructure. Future research will need to consider how to support young people's autonomy and health, but also meet them where they are, and consider where they want to go in the broader context of a rapidly changing society.

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