

Researchers implement successful virtual driving assessment for teens in health care settings

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Researchers and clinicians from Children's Hospital of Philadelphia (CHOP) have published findings from the first two years of



implementation of a virtual driving assessment (VDA) in sites throughout the CHOP Primary Care Network to screen and provide feedback to teen patients on their driving skills.

The findings, published in the *Annals of Family Medicine*, provide a potential blueprint for how individual primary care sites or other health care systems might integrate the VDA into routine <u>adolescent</u> care. The paper is titled "Testing a New Care Model: Implementing a Virtual Driving Assessment in Primary Care."

Young drivers between the ages of 15 and 20 are involved in approximately 12% of all vehicle crashes and 8.5% of <u>fatal crashes</u>, with the greatest crash risk in the months after receiving their driver's license.

Prior research has estimated that 75% of young novice driver crashes are related to inadequate skills, such as poor scanning, decision errors, and loss of control. Despite this elevated crash risk and the fact that crashes are a leading cause of death for adolescents, evaluating driving readiness to guide <u>clinical practice</u> has not been a standard component of preventive health care for adolescents.

To close this gap, CHOP's Clinical Futures and the Possibilities Project (CHOP's Primary care Implementation Program) have implemented a validated <u>Virtual Driving Assessment (VDA)</u> across the CHOP Primary Care network.

This evidence-based VDA was developed and validated by researchers at the Center for Injury Research and Prevention (CIRP) at CHOP and measures driving skills in common serious <u>crash</u> scenarios that cannot be evaluated with on-road testing, while also providing personalized feedback to families on driving skills that still need improvement.

Building upon prior research that assessed the effectiveness of the VDA



in predicting crash risk, researchers evaluated the implementation of the VDA in primary care as part of adolescent care. CHOP began offering the VDA in primary care in May 2021.

This latest study evaluated its initial implementation across its first two years. During that time, 24,657 adolescents visited CHOP for preventive care, with 33,037 completing the VDA as part of the visit.

"More than 75% of teens who completed the assessment at their primary care preventive visit would recommend it to their friends and would like to take it again," said study co-author Maura Powell, MPH, MBE, manager of the Possilities Project at CHOP. "And with some practice sites seeing nearly 30% of teens opting to take the assessment, we think the demand for this tool will continue to grow."

Despite being rolled out during the COVID-19 pandemic, these initial implementation results are promising and CHOP continues to work to optimize the reach of the VDA to all adolescent drivers coming through their clinics.

"Many parents ask what they can do to help prepare their teen to be a safe driver. We now have a great answer to give: Check to ensure that your child has the skills needed to stay safe by taking a virtual driving assessment as part of routine adolescent care," said Flaura Winston, MD, Ph.D., founder of CIRP and a leader of the CHOP Innovation Ecosystem Initiative.

The team developed multiple approaches to support integration of the VDA into primary care visits. Eligible patient rosters were emailed to primary care sites weekly and used during team huddles to raise awareness. Reminder text messages promoting the VDA were sent to eligible families ahead of their scheduled visits, and posters designed with teen input were displayed in participating practices.



"Since the period covered in this publication, implementation of the VDA in our primary care practices continues to grow," said senior study author Alexander Fiks, MD, a primary care pediatrician, director of Clinical Futures, and director of the Possibilities Project at CHOP.

"Building upon the model developed at CHOP, we expect this to become a routine part of primary care for adolescents and to provide families with the information and tools they need to promote safe driving."

More information: Kelleher et al, Testing a New Care Model: Implementing a Virtual Driving Assessment in Primary Care, *The Annals of Family Medicine* (2024). DOI: 10.1370/afm.3138

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