

Highland Park Department of Public Safety Uses Druid to Assess Officers' Fatigue

Study provides critical data to support duty shift changes that won't endanger officers or the public

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Cambridge, MA – Impairment Science, Inc. (ISI) today announced that The Highland Park Department of Public Safety (TX) has completed a study of officer fatigue using the Druid App to measure impairment. The study helped inform decisions regarding the optimal shifts of duty for its officers.

The study concluded the lengthy process of deciding whether to make scheduling changes to address the officers' workplace fatigue. The new duty schedule is intended to provide more rest to officers by establishing a work a pattern of 48-hours on duty and 96-hours off duty. The old schedule -- 24-hours on and 48-hours off -- was thought to be more stressful because it allowed less recuperative time.

"We had been looking for a data-driven, evidenced-based solution that could monitor and measure impairment from fatigue when we came across the Druid system", said Wayne Kilmer, Assistant Chief of the Highland Park Department of Public Safety. "Because the Druid test was fast and non-invasive, it was easy to adapt into our daily routine. The study's recommendation, along with sleep data we gathered, provided the necessary scientific validation for the schedule change."

The study was conducted anonymously and voluntarily by the majority of the officers. During the 6-week study, officers were divided into two groups: a control group following the old schedule and an experimental group following the new schedule.

Study Questions and Methodology

The study also evaluated other aspects of fatigue in the workplace. It sought answers to these questions: Are officers fatigued at the end of a 24-hr. shift? By how much? Do officers on patrol duty during the graveyard shift (11pm-7am) show more fatigue? Does fatigue vary by an officer's years on the job?

Assistant Chief Kilmer, together with the Impairment Science team, developed a methodology with which the officers were tested at the start of their workday and again at periodic intervals. Officer scores were extracted and analyzed using SPS, a statistical tool.

"Once we set up the testing protocols, the officers were extremely supportive in regularly using Druid," noted Mike Milburn, Chief Science Officer and founder of the Druid app. "This allowed us to collect a large and valid data sample to provide statistically significant conclusions. It was a dream testing environment from a science perspective." Milburn and the Impairment Science team concluded their report by reviewing thousands of measures from the more than 1200 tests taken during the 6-week testing period.

Other key findings from the study included:

- Overall, officers showed minor levels of impairment on a 24-hour work shift.
- On average, officers on patrol during the graveyard shift tended to have only slightly elevated impairment levels.
- On average, officers with 10 years of service or more tended to have higher end-of-shift difference scores.

“Once completed, we presented the findings and recommendations from the 6-week study to our city council” continued Assistant Chief Kilmer. “The net result is that we are now discontinuing the 24- hour duty schedule and starting on the new 48-hour schedule.” We continue to use Druid as a monitoring tool,” he added. “From my perspective, without Druid we would have had neither sufficient scientific validation of our results, nor as clear and convincing a case to make to our city council”.

Study Implications for other Public Safety Departments and Workplaces

Assistant Chief Kilmer, as well Highland Park DPS Chief Paul Sandman, believe that the Druid study could pave the way for other public safety departments across the country and for other safety-sensitive workplaces to devise optimal schedules that fit their particular workplace requirements. “No one wants to put anyone in harm’s way”, stated Sandman. “Keeping the public and our officers safe is of course our top priority, and doing this while addressing employee rights, health and wellbeing is critical. The Impairment Science testing solution provides useful, objective data with which to make informed decisions to accomplish these goals.”

Impairment Science, Inc. Formerly known as DRUIDapp, Inc., ISI creates mobile apps that test for impairment due to any cause. The change of name to Impairment Science, Inc, reflects the company’s move to a broader range of products for preventing impairment to protect people’s health and safety.

Designed to run on any iOS or Android device, Druid is available at the Apple store and Google Play at no charge for 14 days and thereafter for an annual charge of \$1.99 per month or \$14.99 annually.

Druid is available for employers and managers of organizations as part of Druid Enterprise, ISI’s scalable, online management portal and database which provides real-time monitoring and analysis of employees’ or other participants’ Druid scores. Please contact sales@impairmentscience.com to learn more.

For more information, please contact ISI at 617-612-5800 or info@impairmentscience.com, or visit our website at www.impairmentscience.com.

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