

ASSISTANCE PROGRAM

Human Infrastructure Health & Awareness (HIHA) Technology Narcotics Identification Partnership Program

PARTNERSHIP OBJECTIVE

The Rigaku Human Infrastructure Health & Awareness (HIHA) Technology Narcotics Identification Partnership program was developed to assist government health administration departments/ministries and law enforcement agencies in their efforts to reduce the increasing rates of unintentional drug overdoses and fatalities related to the opioid addiction and fentanyl poisoning.

PROBLEM

Rigaku's HIHA initiative is a counter-overdose narcotic technology identification partnership strategy to combat the significant increase in unintentional drug overdoses, and fatalities in the United States, and other countries. Rigaku recognizes that arresting low-level substance users will not reduce the increasing number of drug overdose fatalities. The illicit narcotics threat has evolved beyond the traditional production, and use of methamphetamine, cocaine, and heroin. A new, and more deadly synthetic opioid, fentanyl, is now being produced by criminal drug cartels, and distributed throughout North America to unsuspecting substance users. In the United States this has resulted in a staggering 100,000 drug-related overdose fatalities between 2020-2021. The production of illicit fentanyl in powder and pill form by drug cartels represents a national security threat to global communities.

As many communities are considering the decriminalization of personal use drug possession of cocaine, heroin, methamphetamine, and other narcotics; this will undoubtedly cause a surge in the use of these, and other drugs. Drug trafficking organizations will take advantage of decriminalization to increase the distribution of fentanyl-laced drugs in smaller personal use amounts preventing users from being arrested for drug possession.

First-time and younger individuals will be attracted to experiment with illicit substance usage. Studies have shown that new substance users are especially vulnerable to unintentional fatal drug overdoses when exposed to only .02 milligrams of fentanyl. Additionally, the increase in homelessness, job loss, and clinical depression stemming from the pandemic has created a perfect storm for substance use, and fatalities to increase.

As some cities in the United States decide to restructure safety and security budgets, funding has been reallocated for the creation of new mental health street response teams (SRT). The implementation of SRT to respond to health crisis situations presents an opportunity for Rigaku to support new community-based outreach programs.

HIHA SOLUTION

The Rigaku CQL Narc-ID handheld Raman analyzer offers community first responders, and healthcare providers, with an advanced method for identifying dangerous narcotics, new psychoactive substances, cutting agents, precursor chemicals, and more - through packaging. This feature of Raman technology reduces risk of exposure to potentially dangerous chemicals. When combined with the CQL Narc-ID, QuickDetect Mode adds the capability to detect non-visible amounts of a substance. This combines two powerful complimentary analysis techniques together into one instrument, providing:

- Automatic generation of reports
- Electronic storage of and ability to quickly share results
- Preservation of chain of evidence
- Automatic time/date stamp of scan within report
- Automated colorimetric removes human error

HIHA IMPLEMENTATION

In an effort to support city administrations hit the hardest by the surge in unintentional drug overdoses, Rigaku's HIHA program will provide a handheld CQL Narc-ID Raman analyzer, as well as training. Rigaku's intent is to assist in developing mitigation strategies that provide a proactive, preventive measure to reduce the probability of drug overdoses to those who seek assistance. The Rigaku CQL Narc-ID provides analysis of the largest range of sample types by non-technical operators with actionable results in under 60 seconds. Rigaku's HIHA initiative is part of its harm reduction strategy partnership with local, state, and foreign government health service providers to establish pre-screening protocols for both licit and illicit substances for the presences of fentanyl contamination. The HIHA initiative provides healthcare providers counter-drug awareness training and the ability to integrate the use of advance drug identification technology into their existing drug treatment and prevention programs to reducing the adverse consequences related to unintentional fentanyl drug overdose.

Laser excitation

1064 nm reduces fluorescence issues (common for 785 nm) when scanning colored substances

Comprehensive library

~1,100 substances including latest narcotics, cutting agents, and precursors, with the ability to add user-generated spectra

Results that make sense

determine threat levels based on color-coded results in < 1 minute



Ruggedized / Easy to use

built tough and deconable with 810G and IP-68 ratings; operate by touchscreen or button control

Time / Date-Stamped Files

embed pictorial images using on-board camera with scan results - transfer WiFi, peer-to-peer, or USB

Optional Colorimetrics

built tough and deconable with 810G and IP-68 ratings; operate by touchscreen or button control

TRUSTED SUPPORT

The Rigaku CQL Narc-ID support package includes:

- 24-month manufacturer's warranty
- Software and library updates - included for life of instrument
- 24/7/365 Reachback support - included under active support



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