

EXECUTIVE SUMMARY

This Counterdrug Research and Development Blueprint Update provides the annual periodic report on the Counterdrug Technology Assessment Center's (CTAC) counterdrug research and development (R&D) program and Technology Transfer Program (TTP). Appendices to this report provide information mandated by CTAC's role as the central counterdrug technology research and development organization of the U.S. Government. CTAC's efforts support the National Drug Control Strategy goals of achieving a 10 percent reduction in current use of illegal drugs in two years, and a 25 percent reduction in current use of illegal drugs in five years.

The demand reduction R&D program supports the President's national priorities: stopping use before it starts and healing America's drug users. CTAC, in collaboration with the National Institute on Drug Abuse (NIDA), has created a niche for developing and installing advanced neuroimaging centers across the U.S. In fiscal year 2002, three advanced neuroimaging centers became operational: a Positron Emission Tomography (PET) brain scanner at the University of Pennsylvania, a 4-Tesla functional Magnetic Resonance (fMRI) scanner at McLean Hospital outside Boston, and a 7-Tesla fMRI in Boston, Massachusetts. These new centers increase

the total number of CTAC-sponsored neuroimaging centers to twelve. This expansion of the national infrastructure of advanced neuroimaging systems enables expanded research with previously unavailable levels of detail, offering novel insights into the underlying causes of addiction.

In the supply reduction area, CTAC works with national drug control agencies to develop and evaluate technologies to interdict drug shipments and disrupt the drug market. Tactical technology-development efforts to support the law enforcement officer in performing daily operations have included projects to improve information management and data sharing, tracking and surveillance, and communications interoperability capabilities. Under CTAC leadership, a custom engineered computer-based wireless communications interoperability system that eliminates the incompatibility problem for the Denver, Colorado area completed a full year of highly successful operations in August 2002 and is now available to state and local law enforcement agencies through the TTP. Since its beginning in 1998, the TTP has delivered advanced drug crime fighting technology and the necessary training to use it to nearly 4,000 state and local law enforcement agencies across all fifty states.

CTAC Major Activities

Research and Development Program

Demand Reduction: Stopping Use Before It Starts and Healing America's Drug Users
Brain Imaging and Bioinformatics Technologies

Supply Reduction: Disrupting the Market

Drugged Driving Detection, Communications Interoperability, Cargo Inspection, Drug Crime Information Handling, and Tracking and Surveillance Technologies

Operational Test and Evaluation Activities

Technology Transfer Program

Deliveries to nearly 4,000 state and local agencies