

TechBeat

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by JTIC

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About TechBeat



TechBeat is the monthly newsmagazine of the National Law Enforcement and Corrections Technology Center System. Our goal is to keep you up to date on technologies for the public safety community and research efforts in government and private industry.

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The NLECTC System

The Justice Technology Information Center (JTIC), a component of the National Institute of Justice's National Law Enforcement and Corrections Technology Center (NLECTC) System, serves as an information resource for technology and equipment related to law enforcement, corrections and courts and as a primary point of contact for administration of a voluntary equipment standards and testing program for public safety equipment.



JTIC is part of the NLECTC System, which includes the Justice Innovation Center for Small, Rural, Tribal, and Border Criminal Justice Agencies, which focuses on the unique law enforcement challenges faced by those types of agencies; the National Criminal Justice Technology Research, Test and Evaluation Center, which provides technology-related research and testing and operational evaluations of technologies; and the Forensic Technology Center of Excellence, which supports technology research, development, testing and evaluation efforts in forensic science. In addition, a Priority Criminal Justice Needs Initiative exists to assess and prioritize technology needs across the criminal justice community.



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Inmates Dismantle a Prison – With Administration Approval

Inmates Dismantle a Prison – With Administration Approval

Every April, when Earth Day rolls around, individuals and organizations think about projects they could take on to help the environment: recycling more, repurposing equipment or selling materials for scrap instead of sending them to a landfill.

Few of them do it on the scale undertaken by the Maryland Department of Public Safety and Correctional Services, which put all three together in the deconstruction of the Maryland House of Correction and saved the state millions of dollars.

Situated on a plot of land outside of Baltimore, the Maryland House of Correction housed inmates for the state from 1878 through 2006. New, up-to-date facilities in another part of the state took care of housing the inmate population, but the building remained empty until 2011 as the state undertook a careful planning and



bidding process for deconstruction. In addition to  the savings in cost and to the environment, the project provided inmates with job-training skills, incorporating all three of the “wins” that drive the nationwide impetus to make corrections more green and sustainable (see related article, “[Greening Corrections Impacts More Than the Environment.](#)”)

“It was a lengthy process of getting approvals from the Department of Budget and Management and the General Assembly, then developing a plan that made it all work out,” says David Bezanson, Assistant Secretary for Capital Programs. “A project of this scope had never been done before, and we had to develop a program and an approach that satisfied a number of historical, fire safety and engineering challenges. Once everything came together, it took about 18 months to finalize the plan and train the inmates, and another 18 months to take down the 350,000-square-foot facility.”

All told, the project resulted in:

- Recycling 99 percent of building structure removed during deconstruction.
- Recycling 4,000 tons of steel and 1,086 tons of concrete.
- Sending only 126 tons of waste to a landfill.
- Training 150 inmates in job skills that could be used in the construction trade following re-entry into the community.
- Salvaging all reusable fixtures and equipment for use in other department facilities.
- Reducing the actual cost to \$5.5 million, about half of the contractor’s estimate for a conventional demolition.

“The inmates removed copper wiring, disassembled plumbing, abated asbestos tile and window glazing, demolished block walls, cut away metal gates and removed light fixtures,” Bezanson says. “We created an apprenticeship program for inmates, who completed a four-week training course funded by a grant from the Abell Foundation.”

Acknowledging the irony of using inmates to take a prison apart, Bezanson says the state carefully selected the minimum security inmates who became the work crew based on physical fitness, overall health and minimum eighth-grade education level. All of them had re-entry plans based in metropolitan Baltimore or central Maryland, and the state excluded violent offenders and sex offenders. Professional engineering and consulting firms conducted the classroom training, and some inmates secured jobs in the construction industry after release, he says.

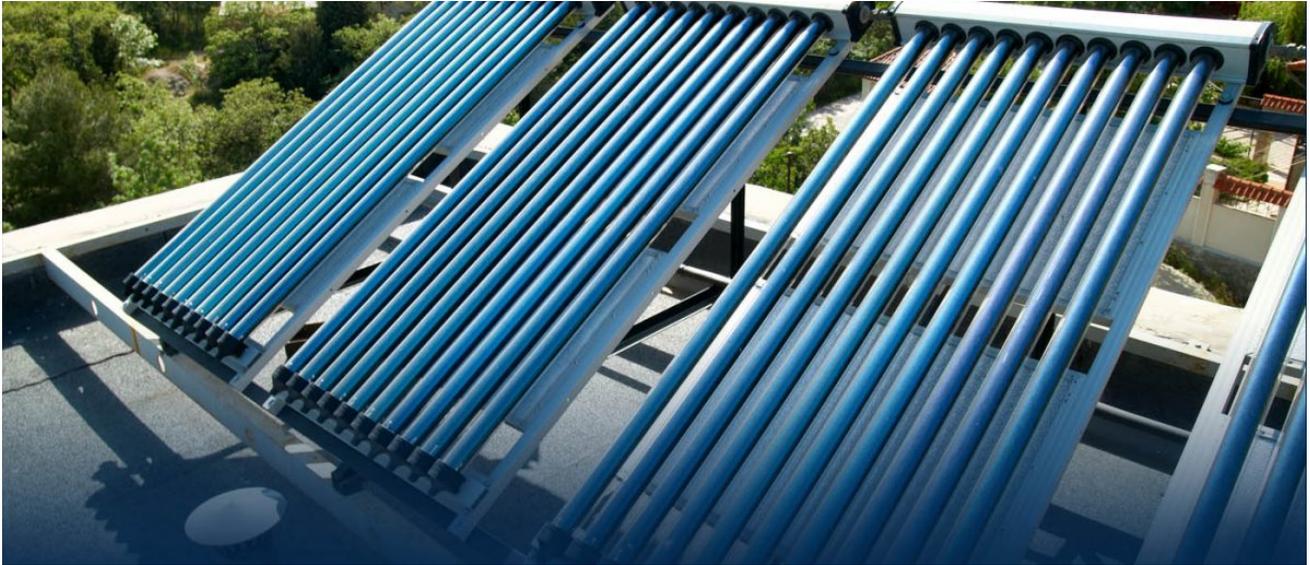
The success of the project led to Bezanson, who also serves as the chair of the American Correctional Association (ACA) Facilities Planning and Design Committee, twice giving presentations on the outcome at ACA meetings. Both Ohio and Pennsylvania have expressed interest in using the Maryland project as a model for planned deconstruction efforts, he says.

“The department saw this as a challenge and looked into how we could accomplish it in a sustainable manner,” Bezanson says. “I think it was very successful and innovative, and as a result, we have a site for a potential future medical facility. It truly was a success in terms of sustainability, utilizing our modern correctional facilities and dealing with removing an old structure.”

For more information, contact David Bezanson at (410) 339-5068 or email David.Bezanson@maryland.gov.

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Greening Corrections Impacts More Than the Environment

Greening Corrections Impacts More Than the Environment

On the field of sport, there are always winners and losers. But in the field of “green corrections,” the triple winners of saving money, developing inmate job skills and helping the environment drive administrators’ interest.

Since the National Law Enforcement and Corrections Technology Center System published *Greening Corrections Technology Guidebook* in February 2012 (<https://www.justnet.org/pdf/greening-corrections-technology-guidebook-final-0229.pdf>), interest in the topic has increased to the point that at least half of all states have a form of sustainability plan and a sustainability manager. Most states have started recycling programs, and facilities with alternate or transitional energy programs, such as using solar panels or vehicles powered by natural gas, are on the increase. The Sustainability Oriented and Environmentally Responsible Practices in Corrections Committee is the largest active national committee of the American Correctional Association (ACA), according to Paul Sheldon, consultant and guidebook co-author.

“Cost savings are driving everything — lighting upgrades, recycling, trash, materials flow, reducing toxics, composters, food dehydrators to reduce pulp waste — all of the things that reach payback in a short time,” Sheldon says. “And as part of bid specifications, many states are requiring the use of inmate workers, which incorporates a job-training component.”



Some states incorporate that job-readiness training through the Roots of Success Program (<https://rootsofsuccess.org/corrections>), and Ohio has strong anecdotal evidence that inmates who participate in Roots of Success, literacy training and faith-based programs have reduced rates of recidivism, Sheldon says.

“Going forward, one of the best ways to promote sustainability is tying job skills to re-entry employment,” says Tommy Norris, chair of the ACA Sustainability Committee and moderator of the GreenPrisons website (<https://greenprisons.org>), a not-for-profit education tool that provides news on sustainable projects in corrections, training and technical assistance, and a networking forum. “For example, one Ohio facility did a large thermal installation with inmate crews, and the contractor was so impressed with the work of two inmates in particular that he wrote formal job offers they could present to the parole board. These projects teach skills that are really transferable on re-entry.” (See a related article, [“Inmates Dismantle Prison — With Administration Approval,”](#) on a deconstruction project in Maryland.)

“As budgeting becomes more and more of an issue, correctional facilities tend to go for the low-hanging fruit like recycling. When it comes to more mid-range projects, administrators can see the benefits but finding the funding is a challenge,” Norris adds. “Most agencies can only implement larger projects through an ESPC, and the challenge there is the ESCO looks at projects that have the highest return for the lowest upfront cost.”

An energy savings performance contract, or ESPC, is a model where an energy services company, or ESCO, covers the upfront cost to achieve energy savings at a property or portfolio of properties as a service. This model guarantees savings for a set period of time in exchange for payment from the energy cost savings. An ESCO will assess the efficiency opportunity, purchase equipment necessary to improve performance and install the

equipment. Most ESCOs will provide a financing option for these services as well, but depending on the ESCO, the building owner may be required to seek outside financing. (Definition from the U.S. Department of Energy, <https://betterbuildingsolutioncenter.energy.gov/sites/default/files/attachments/ESCO%20Financing%20Summary.pdf>.)

In spite of all the challenges, with funding being the most significant, the progress made since the publication of the guidebook gives those working in the field many reasons to be optimistic. That same seven-year time span has seen several types of projects that were futuristic at the time of publication, such as aquaponics, become much more commonly used in the field, Sheldon says.

“At least six states now invest in combined water purification, fish farming and vegetable growing in the same facility,” Sheldon says. “Another innovative type of project is evacuated tube solar-powered hot water. As far as I know, all solar panel projects in the past few years have used this method, which is 20 to 80 percent more efficient, depending on the climate since they’re much more efficient and cost-effective in climates with colder weather. There have also been a lot of conversions to the transitional technology of using natural gas-powered vehicles, and LED lighting has improved to the point where it’s practical for use on high-post exterior and parking lot lighting. LED is particularly effective in corrections because it doesn’t reflect as much off airborne dust particles and thus penetrates shadows more effectively. LEDs also illuminate a fraction of a second faster, and when you’re talking about crisis situations, that’s a significant difference, especially if the lights are on an automatic sensor or timer.”

In addition to more widespread adoption of innovative practices such as these, Sheldon says there is also greater awareness of the importance of not using toxic, caustic or flammable materials, but rather using more green and sustainable methods of cleaning, painting and finishing. Norris says current ACA Sustainability Committee efforts focus on awareness of that concept, along with promoting recognition for the innovative and uniquely effective programs implemented in facilities around the country: “It’s not that their administrators are in it for the recognition, but that recognition lets other facilities around the country learn about what they’re doing. That helps the movement grow and it’s a critical piece.”

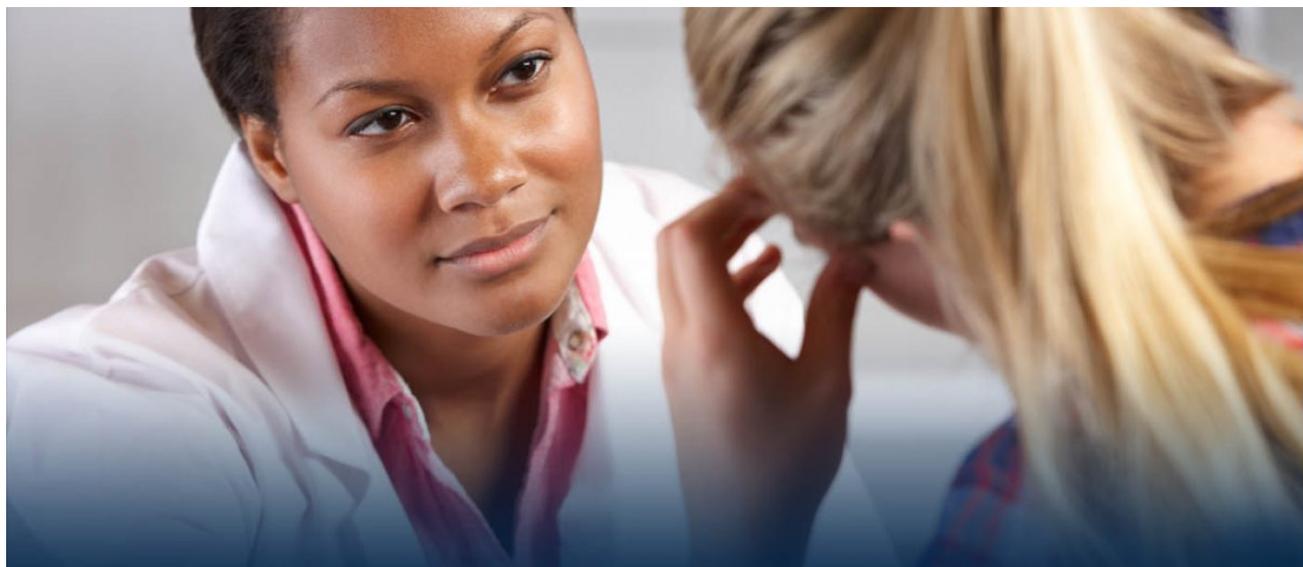
Assistance with that recognition also comes from the National Institute of Corrections, which houses a library of sustainability submissions from the field at <https://nicic.gov/green->

[corrections-2](#). ACA standards and policies also help lead the corrections community, Sheldon says, through presentations to groups such as the American Jail Association, the North American Association of Wardens and Superintendents, the Construction Management Institute for Criminal Justice Agencies, the Correctional Accreditation Managers Association, and numerous regional groups and associations. In addition to giving presentations, the Sustainability Committee also is working to integrate additional sustainability requirements into the ACA accreditation process. Also, GreenPrisons offers a “clipboard checklist” based on the guidebook that administrators can use to do a sustainability walkthrough of their facilities.

For more information, contact Paul Sheldon at paul@greenprisons.org or Tommy Norris at Tommy@greenprisons.org.

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There's an App for That, and a Glossary, and Several Other FTCoE Sexual Assault Investigation Products

There's an App for That, and a Glossary, and Several Other FTCoE Sexual Assault Investigation Products

Criminal justice professionals working in the area of sexual assault might want to begin making room on their crowded devices for a new app: The *Multidisciplinary Sexual Assault Kit Best Practices* app, coming soon from the National Institute of Justice's (NIJ) Forensic Technology Center of Excellence (FTCoE). The app, currently in beta testing, is just one of a number of products the FTCoE offers as part of its special initiative on sexual assault reform.

“We have had this special initiative since 2012 and we will continue to focus work in the area of sexual assault investigations in the future. I believe we are now reaching the point where many of our efforts have become widely accepted and used,” says FTCoE Director Jeri Roper-Miller.

Read on for more information on several of those efforts, including the app.



App. Available in both iOS and Android versions, the *Multidisciplinary Sexual Assault Kit Best Practices* app is based on the NIJ report, *National Best Practices for Sexual Assault Kits: A Multidisciplinary Approach* (<https://www.ncjrs.gov/pdffiles1/nij/250384.pdf>).



In addition to providing access to recommendations and guidance from the Sexual Assault Forensic Evidence Reporting (SAFER) Act working group, it incorporates additional resources and links to external sites.

“Practitioners need to have dynamic information about how to best approach kits and trauma-informed sexual assault cases in general, and the mobile app will allow them to consume this information in a familiar format,” says Paige Presler-Jur, RTI International research scientist. “It’s more realistic to think they will use an app in the field as they do their work rather than their taking the time to sit down and look at information on a desktop computer or a printed publication.”

The free app, developed through a partnership with AB Castner Technologies, allows users to go directly to information related to any one of the 35 recommendations in the NIJ report. For example, law enforcement practitioners might want to review Recommendation 22, which states “All law enforcement personnel involved in sexual assault investigations should receive training in the neurobiology of trauma and specialized skills for interviewing sexual assault victims.” Presler-Jur says that recommendation includes information that’s important for anyone who works with victims of sexual assault.

“There are so many facets to how the trauma of sexual assault affects a person,” she says. “Receiving training in the neurobiology of trauma and in interviewing victims of sexual assault is really critical to achieving a trauma-informed approach that will both help a victim on the way to recovery and ensure that the case is going to be able to go through the criminal justice system. We feel the NIJ report has a lot of crucial information that will help jurisdictions implement victim-centered approaches for sexual assault cases, and it will make that information available in a format that people can access quickly, which is a benefit to the community.”

The app features an interactive table of contents that takes the user directly to specific chapters of the report, provides direct access to the recommendations, and links to external

resources that include another FTCoE product, the *Multidisciplinary Sexual Assault Glossary*. This gateway to the glossary makes the app a “two-fer”; that is, it provides mobile access to the glossary without requiring practitioners to download a second app.

Glossary. In partnership with the Center for Nursing Excellence International, the FTCoE launched the *Multidisciplinary Sexual Assault Glossary* (<https://forensiccoe.org/sexual-assault/>) in November 2016. The database includes more than 3,500 terms and averages more than 4,000 visitors each month. During 2017, the Center worked on expanding the glossary to include terms in the areas of general sexual assault, human trafficking, child exploitation, child pornography, elder sexual assault, LGBTQ and death investigations involving sexual assault.

“When we started the project, we really focused on sexual assault investigations. As we have continued to build out the glossary, we have tried to go into other areas where there is overlap between law enforcement, labs and courts,” Ropero-Miller says.

The FTCoE efforts have received a boost from an increased focus on the need to standardize language and terminology from the National Forensic Science Commission, the Office of Sexual Assault Prevention and Deputy Attorney General Rod Rosenstein, the latter in a presentation to the American Academy of Forensic Sciences.

“As we said at launch, investigations are sensitive and the language used can vary greatly between different stakeholders. Now there’s really an impetus for standardization at the national level,” Ropero-Miller says. (See “Online Glossary Helps Professionals ‘Speak the Same Language’ About Sexual Assault,” *TechBeat*, January 2017, https://www.justnet.org/InteractiveTechBeat/eTECHBEAT/eTechbeat_Jan_2017/content/pdf/eTechbeat_Jan_2017.pdf.)

Other projects. The FTCoE has a number of other projects related to sexual assault in the works, including:

- *Beyond DNA: The Impact of Physical Evidence in Sexual Assault Investigations*. Due to be released in May 2018, this report helps inform the community on non-DNA sexual assault evidence types and best practices, including currently available technologies that can help.
- *Guidance Document on the Evidence Processing of Groping Cases*. Coming in summer 2018, this document looks at criminal justice implications for investigating and prosecuting forensic evidence obtained from groping cases and instances where this type of case provided valuable

DNA evidence.

- “The Jurisdictional Return on Investment From Processing the Backlog of Untested Sexual Assault Kits,” a draft article presently in peer review, evaluates the impact of processing the backlog of untested sexual assault kits using data from the NIJ-supported FORESIGHT database. Written by Dr. Paul Speaker, an FTCoE collaborator from West Virginia University, this article is targeted for publication in a professional journal.

Additional projects are planned for the future, such as:

- Knowledge transfer videos for remote and rural areas, in collaboration with the National Advocacy Center in Charleston, S.C.
- *Human Trafficking Best Practices Guidance Document for Advancing Research Initiatives and Combatting the Human Trafficking Epidemic.*
- A workforce calculator.
- A validation repository.

“The sexual assault initiative is certainly going to remain a priority for us, as all of these new projects show,” Roper-Miller says, “and of course we will continue to improve and expand on the glossary and the app.”

For more information on the programs of the FTCoE, contact Jeri Roper-Miller at jerimiller@rti.org. For information on other projects in NIJ’s forensics portfolio, contact Gerald LaPorte, Director, Office of Investigative and Forensic Sciences, at Gerald.LaPorte@usdoj.gov.

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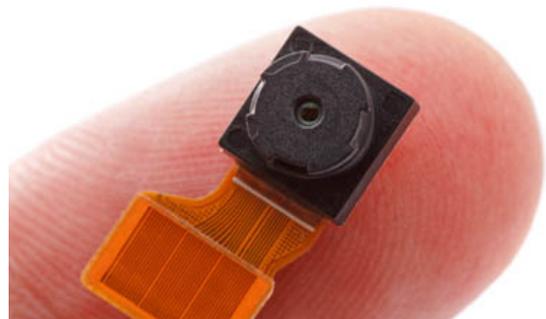
Safe Seniors Camera Program Seeks to Protect the Elderly

Safe Seniors Camera Program Seeks to Protect the Elderly

Wisconsin has started a pilot program to help people who suspect that an elderly family member is being abused at home by a caretaker.

Under the Safe Seniors Camera Program, the state Department of Justice will provide covert cameras and memory cards to citizens for 30 days through local partner law enforcement agencies. Participants in the program are interviewed, sign a contract and are required to save recordings daily and report misconduct to a local law enforcement agency or the Wisconsin Department of Justice Division of Criminal Investigation.

Seven law enforcement agencies in eastern Wisconsin are participating in the pilot program (Appleton Police Department, Brown County Sheriff's Office, Fond du Lac Police Department, Grand Chute Police Department, Oshkosh Police Department, Outagamie County Sheriff's Office



and Winnebago County Sheriff's Office).



“If people suspect their senior loved one is being victimized by abuse or neglect, we can set them up with covert cameras with memory cards in the home, and they have to download video from the card daily and if see anything suspicious is happening and if so, notify us,” says Wisconsin Attorney General Brad Schimel. “With the cameras, they can either gather proof that what they suspect is happening, or get peace of mind that something is not happening.”

The cameras do not capture audio on the recording, only video. The program does not apply to nursing homes and other care facilities with multiple patients.

“The numbers gathered by groups that provide professional services to seniors tell us that one in nine seniors has been a victim of abuse, neglect or some type of exploitation in the last 12 months, which is unacceptable,” Schimel says.

In an annual report, the Wisconsin Department of Health Services breaks down primary reasons for calls to agencies regarding abuse, neglect or exploitation of older adults into financial exploitation, physical abuse, emotional abuse, sexual abuse, unreasonable confinement/restraint, neglect by others and self-neglect. The latest report, *Wisconsin's Annual Elder Abuse and Neglect Report: 2016*, is available at <https://www.dhs.wisconsin.gov/publications/p00124-16.pdf>.

The state announced the camera program in February 2018, and received a warm reception from organizations that serve the elderly. As of late March, no citizens had signed up for the program, and the state may need to promote the program more to make people aware it is available, according to Schimel.

For more information, contact John Koremenos, director of communications and public affairs for the Wisconsin Department of Justice, at koremenosj@doj.state.wi.us.

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Study on How PTSD Affects Police Officers

National Institute of Justice

Researchers at the University of Buffalo will use a grant from the National Institute of Justice to study and measure how post-traumatic stress disorder (PTSD) affects police officer decision-making.

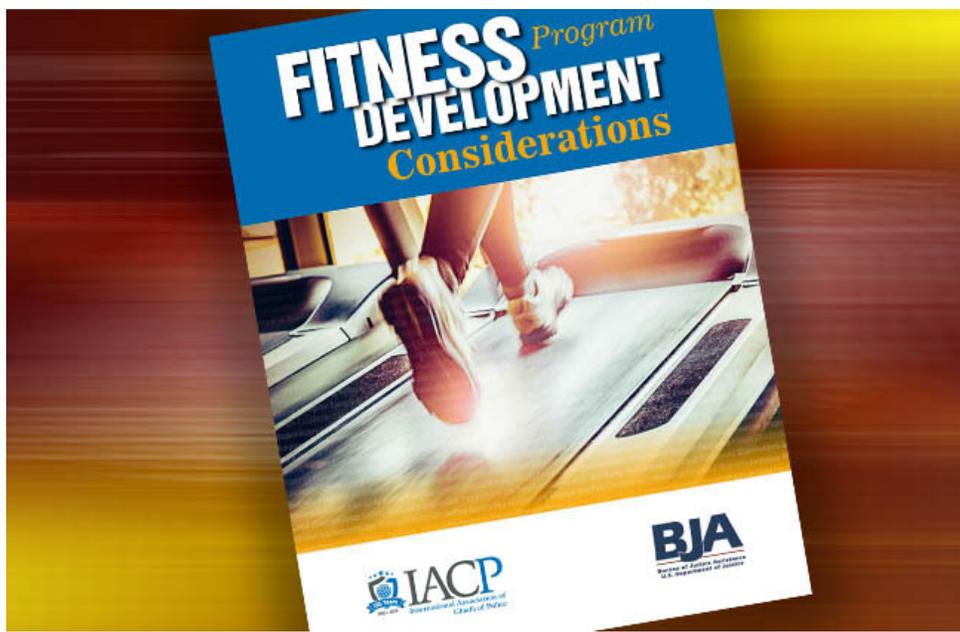
Researchers plan to involve police officers from the Buffalo Police Department in the study. Study participants will include police officers who have been exposed to traumatic experiences and have a range of PTSD symptoms, and 55 non-trauma exposed civilian control participants.

Event-related brain potentials will be derived from 256 channels of scalp-recorded electroencephalography while participants perform cognitive tasks that require continuous attention, target detection (go) and inhibition of responses (no-go). With go/no-go, participants will be given a task that will require them to either respond quickly and

accurately or refrain from responding, depending on stimuli.

For information, click [here](#).

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Report Outlines Fitness Program Development for Police

International Association of Chiefs of Police and Bureau of Justice Assistance

This resource highlights the importance of a fitness program for law enforcement personnel and provides guidance and recommendations regarding program development.

Prepared by the International Association of Chiefs of Police with support from the Bureau of Justice Assistance, *Fitness Program Development Considerations* covers a checklist for planning and implementing a fitness program, program design and standards, legal considerations, assembling a team and resources, employee engagement plan, data tracking and evaluation, and physical fitness testing and assessment data.

To read the report, click [here](#).

Main photo: Bureau of Justice Assistance