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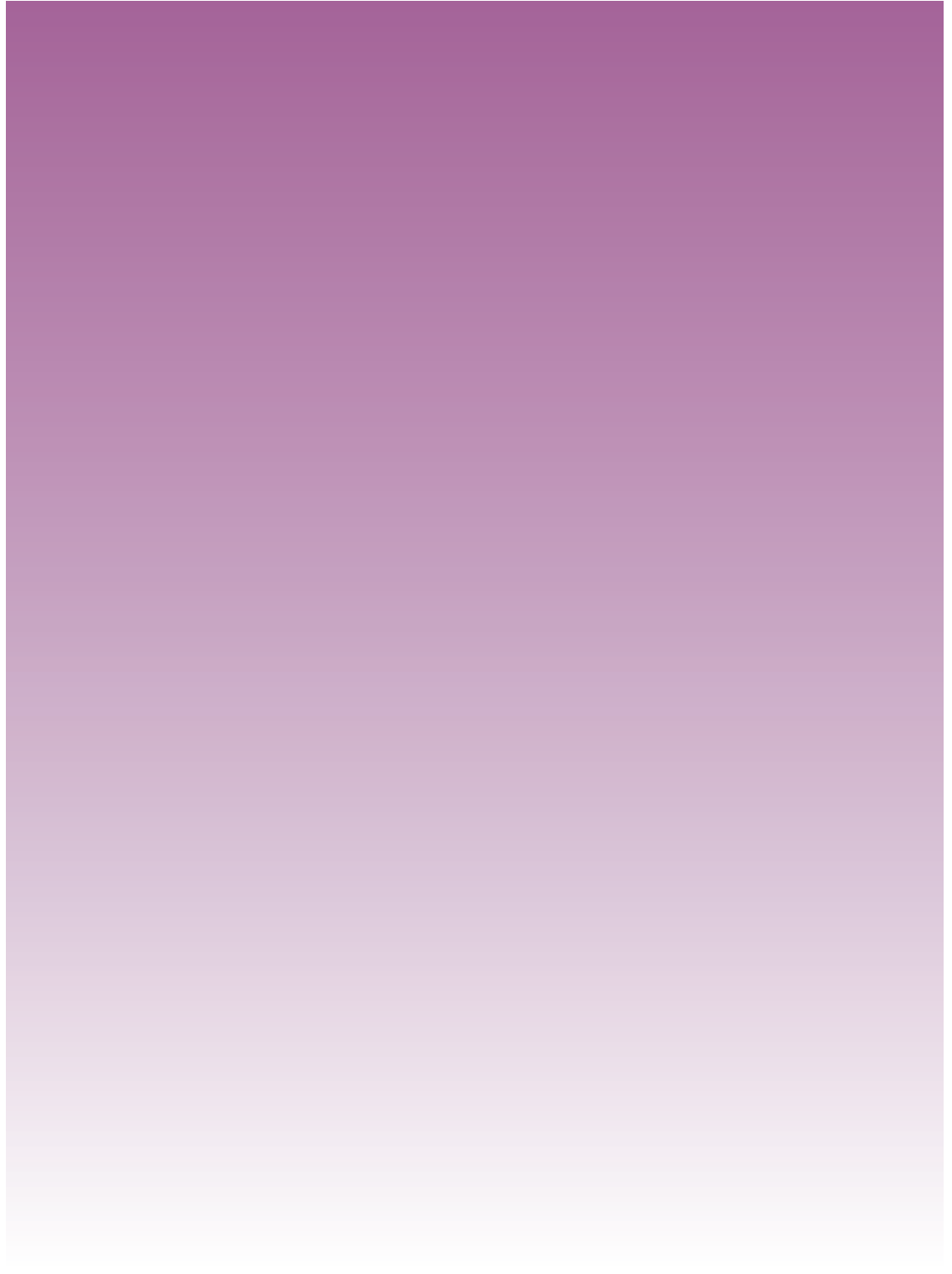
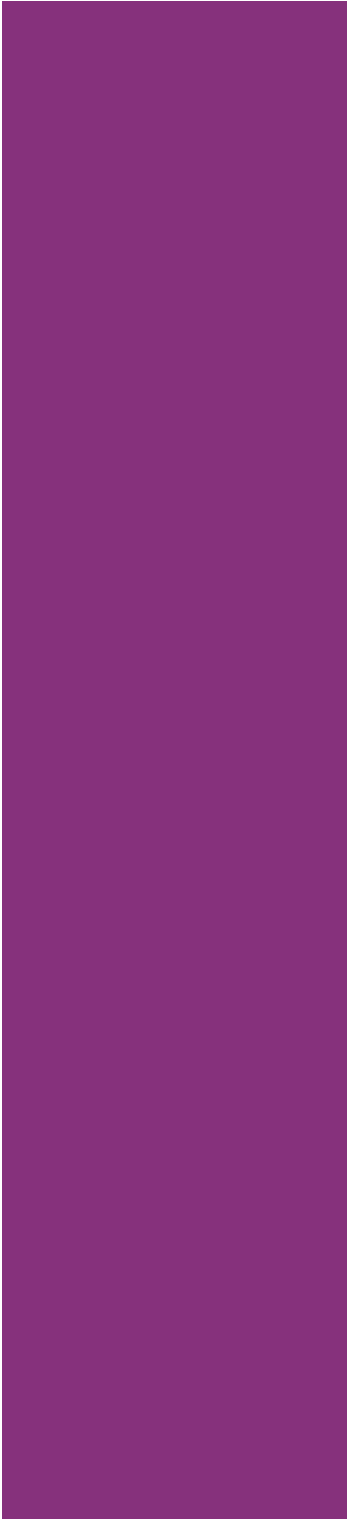


**JUVENILE JUSTICE INITIATIVE**

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**PEPPER SPRAY IN THE TEXAS YOUTH COMMISSION:  
Research Review and Policy Recommendations**

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We would like to extend our appreciation to Scott Belshaw of Prairie View A & M University for his contributions to this report, and for giving us the idea to produce it.

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## Executive Summary

On August 1, 2007, and again on November 7, 2007, the Texas Youth Commission (TYC) sought to increase the number of situations in which juvenile correctional officers could use pepper spray on confined youth. The agency's goal was to reduce restraint-related injuries to staff and youth.

The Texas Criminal Justice Coalition (TCJC), in our efforts to advocate for effective juvenile justice solutions, wanted to better understand the physical and psychological effects of pepper spray use on youth held in state custody, as well as the ramifications of its expanded use. Although pepper spray is widely accepted by the law enforcement and adult correctional communities as an important tool in aiding in subject control, we find that it poses significant risks to both youth and staff, which makes it inappropriate as a permanent, first-response policy to youth non-compliance.

Below are some key findings from our research:

- Not one single study examined recommended pepper spray as safe for use on children.
- The pepper spray formulas used by TYC staff are typically used by law enforcement. The manufacturer does not specifically claim that the products have been formulated or safety tested for use against children in a detention setting.
- The confined environment of a juvenile correctional facility allows for increased risks of harm to both youth and staff, as pepper spray "may produce significant toxic effects" in enclosed spaces.
- Pepper spray has been found to increase youth's violent behavior toward others, post-traumatic stress disorder, and suicidal behavior.
- If juvenile corrections personnel are not proficient in primary control and de-escalation techniques, they may increasingly rely on pepper spray as an option of force.
- Pepper spray is regulated as a weapon; as such, it avoids the more rigorous testing required of drugs and depends largely on reports of its use in the field to support claims of safety and effectiveness.
- At least one federal court has determined that the harm resulting from pepper spray use is so severe that it "satisfied the definition of a dangerous weapon."
- Although most effects of pepper spray are reported to last for less than a few hours, one investigation into the health risks of pepper spray exposure found adverse effects severe enough to require medical attention, including eye burns and abrasions, asthma attacks, acute high blood pressure, chest pains, and loss of consciousness.
- Preliminary research on the long-term risks associated with pepper spray points to the following potential harmful effects: a degeneration of nerve terminals, which results in desensitization to pain and thermal regulation; lasting nerve damage in corneal tissue; acute pulmonary inflammation and respiratory cell injury; a mutagenic effect on organs; changes in the body leading to various types of cancer, including gastric, esophageal, and skin cancers; and tumors.
- Youth at increased risk from pepper spray exposure include those with impaired eye conditions, skin conditions (such as allergic dermatitis), asthma or respiratory complications, underlying cardiac or pulmonary diseases, and those taking prescribed antipsychotic drugs.
- Dangers and deaths associated with pepper spray may be underestimated as a result of medical examiners' failure to adequately consider pepper spray's role in the factors causing death.
- Given the many flaws and limitations pervasive in effectiveness studies, it is difficult to conclude with any certainty whether pepper spray is effective in

## PEPPER SPRAY IN THE TEXAS YOUTH COMMISSION

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achieving control of subjects and increasing safety.

- Due to the lack of well-constructed, data-driven research, policy makers seeking guidance on safe and effective ways to utilize pepper spray receive limited and biased information.

The State of Texas has a moral and statutory obligation to provide a safe, humane, and rehabilitative environment for children in its custody. The potential for abusive use of pepper spray – especially in facilities already suffering from shortages in staff and inadequate training – suggest that the expanded use of pepper spray may actually decrease safety in TYC facilities and is likely to pose additional problems for the agency.

Ultimately, the real solutions to TYC’s problems are not found in a 3-ounce can of pepper spray, but rather in the well-functioning policies, programs, and practices of the agency. We recommend that TYC focus on the following to create an effective juvenile corrections system that will successfully rehabilitate the youth in its care:

- The agency should continue implementing the 80th Legislature’s mandates outlined in S.B. 103 and heed the recommendations of its own Blue Ribbon Task Force in addressing the pervasive, underlying issues driving the increased levels of violence in TYC facilities.
- It should develop effective behavioral and mental health treatment, including intensive, evidence-based programs aimed at reducing aggression and defiance without resorting to use of force.
- It should conduct an independent and comprehensive evaluation of the use of force in its facilities to identify and best address the root problems of endemic violence in the facilities.
- It should provide staff with the tools to de-escalate crisis situations without resorting to use of force.

Should TYC decide to continue its push to expand pepper spray use, TCJC recommends that the agency

take the following three critical actions:

- Convene a collaborative working group – including representatives with critical perspectives from the juvenile justice, health care, advocacy, and legislative arenas – that will consider whether the use of pepper spray is the best course of action to reduce violence in TYC facilities, as well as provide input on any policies or procedures regarding limitations on pepper spray use, training, decontamination, and other accountability measures.
- Require that an external review panel be established for all situations involving pepper spray against youth.
- Conduct regular audits on the use of pepper spray in TYC facilities to alert administrators of any problems before they become liabilities.

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## Introduction

As the recent scandals of sexual abuse in Texas Youth Commission (TYC) facilities became fodder for national headlines, the 80<sup>th</sup> Texas Legislature took it upon itself to ensure the protection and rehabilitation of children in State custody. Lawmakers unanimously passed S.B. 103,<sup>1</sup> omnibus reform legislation aimed at increasing the system's accountability and structural integrity. Acting TYC administration, drawn primarily from the adult prison system, has been tasked with the implementation of the ambitious reform initiatives begun this spring and the daunting goal of turning Texas' sinking juvenile corrections ship around.

On July 25, 2007, in a memo to TYC leaders, TYC Ombudsman, Will Harrell, expressed concerns over the new administration's consideration of pepper spray escalation as a means to control children in TYC facilities. In the memo, Harrell warned that the implications of an expanded pepper spray policy warranted broad input from TYC staff, medical and juvenile justice experts, and legislative and community representatives to consider the legal and practical ramifications of such a policy.<sup>2</sup>

On August 2, 2007, Acting Executive Director of TYC, Dimitria D. Pope, issued a directive requiring the expanded use of oleoresin capsicum (OC), or pepper spray, in the use of force continuum<sup>3</sup> to preempt physical restraint.<sup>4</sup> The stated goal of the directive was a reduction in injuries to staff and children, which were largely the result of the application of physical restraint techniques.<sup>5</sup> The directive reaffirms TYC's "overall philosophy that force should only be used as a last resort," but suggests that in order to avoid further injuries it is necessary to change the way in which staff applies force.<sup>6</sup> The prior TYC administration's problematic history and the closed nature of the new administration's decision-making process in implementing this pepper spray directive triggered skepticism and concern from juvenile justice advocates who feared the new directive was an inappropriate strategy modeled after practices used in the adult corrections system.

On September 12, 2007, two Austin-based advocacy groups, Texas Appleseed and Advocacy, Inc., sued TYC

for failing to abide by the rules of the state Administrative Procedures Act in issuing the pepper spray directive. By September 28, 2007, the State had quickly settled the lawsuit and agreed that it had overstepped its bounds by increasing the use of pepper spray on TYC youth via administrative directive rather than the formal policy-making process, which provides for public input.<sup>7</sup> On November 7, 2007, TYC officially proposed a new use of force policy by posting it to the *Texas Register*, a weekly periodical that provides information to the public about proposed administrative rule changes.<sup>8</sup> However, by November 19, 2007, TYC found itself in court again, with Texas Appleseed and Advocacy, Inc. alleging that the agency was failing to abide by the settlement agreement and inappropriately using pepper spray on youth who did not pose any threat of imminent danger.<sup>9</sup>

In the context of the ongoing reform effort, some experts in the field suggest that this recent directive to use pepper spray as an alternative to hands-on restraint does not adequately address the underlying problems at TYC as outlined by the Legislature and, in fact, may actually function to undermine the agency's statutorily mandated goal of rehabilitation.<sup>10</sup> Patricia Arthur of the National Center for Youth Law warns that an expanded pepper spray policy would only compound the problems.<sup>11</sup> However, officials at TYC argue that using pepper spray as a restraint alternative will reduce related injuries and ultimately improve conditions for children and staff at TYC facilities. In this report, the Texas Criminal Justice Coalition (TCJC) takes a look at the research to see if increased dependence on pepper spray really is the best solution to address the safety issues at TYC.

### Pepper Spray

#### General Background on Pepper Spray

Pepper spray formulas include concentrated oils extracted from “hot” peppers which are referred to as oleoresin capsicum, or OC. The bioactive chemicals contained in oleoresin capsicum are known as capsaicinoids. The capsaicinoid content is the most important factor in determining product efficacy and safety. The most prominent and best understood of the capsaicinoids is called capsaicin.

#### Products Authorized by TYC

The primary sprays authorized for carry-on use by TYC staff include First Defense MK-3 and MK-4 Stream Aerosol Projectors, and the MK-9 Vertical Aerosol Projector, both manufactured by Defense Technology. The First Defense formulas selected by TYC are a standard 10 percent oleoresin capsicum solution, typically used by law enforcement.<sup>12</sup> According to manufacturer specifications, the First Defense formula has a capsaicinoid concentration of 0.20 percent, and includes carrier ingredients of distilled water, ethanol, and propylene glycol.<sup>13</sup> These products are designated for use by law enforcement and corrections personnel and are tested for quality control;<sup>14</sup> however, the manufacturer does not specifically claim that any of these products have been formulated or safety tested for use by juvenile corrections staff against children in a detention setting.

#### Summary of Research on Effectiveness

The bulk of research discussing pepper spray is in the context of its use by law enforcement. Pepper spray gained popularity among law enforcement in the mid-1990’s following an FBI study which reported favorably on its use; however, that report has since become suspect following the conviction of its author for accepting \$57,000 in kickbacks from the pepper spray manufacturer.<sup>15</sup> Subsequent reports often focus on the effectiveness of pepper spray as a less-than-lethal option intended to reduce officer and suspect injuries, claims of excessive force, and civil liability arising from lasting or “overt visible signs of injury.”<sup>16</sup> Pepper spray does not require safety testing and regulation as a drug, despite its pharmacological effects on the human body;

instead, it is regulated as a weapon, subverting the more rigorous testing required of drugs and depending largely on its use in the field to support claims of safety and effectiveness.<sup>17</sup> In reviewing literature on the subject, claims of pepper spray effectiveness and safety often appear to reach broad conclusions based on limited or subjective information; no studies exist that definitively demonstrate a reliable effectiveness measure nor the safety of pepper spray. *(For a detailed discussion of studies done on pepper spray effectiveness, see Appendix A.)*

#### Immediate Effects

The capsaicin contained in pepper spray induces the immediate release of substance P, a neurotransmitter which assists in cell communication between primary sensory neurons and other cells. The flood of substance P stimulates other cell activities, which results in an almost instant onset of physical responses.<sup>18</sup> Effects of pepper spray exposure to the eyes include tearing, redness and swelling of mucous membranes, stinging pain, and involuntary closure of the eyelid.<sup>19</sup> One study noted reduced visual acuity lasting at least one week.<sup>20</sup> Corneal damage may also occur through the use of high velocity sprays at close distances.<sup>21</sup> The immediate effects of pepper spray on skin include intense burning pain, swelling, reddening, and occasional blistering. Respiratory effects include nasal irritation and a tightening of airways, severe coughing and sneezing, and shortness of breath.<sup>22</sup> Additionally, laryngospasm, or closing of the vocal cords, may result in a blocked airway for up to 45 seconds.<sup>23</sup> Researchers also note a marked increase in heart rate and blood pressure, even in controlled settings.<sup>24</sup> More systemic effects of pepper spray exposure may include disorientation, panic, and loss of motor control.<sup>25</sup> Although most symptoms are reported to last for less than a few hours, one investigation into the health risks of pepper spray exposure to officers found adverse effects severe enough to require medical attention, including eye burns and abrasions, asthma attacks, acute high blood pressure, chest pains, and loss of consciousness.<sup>26</sup> The effects of pepper spray may easily become exacerbated and cause greater injury when subjects do not receive



timely and appropriate decontamination.<sup>27</sup>

### **Potential Long-Term Effects**

Often, reports describe only the visible effects of exposure, noting that they are relatively short-lived, and thus claim that pepper spray is a safe option when compared to potentially lethal force. However, in a thorough study of the toxicology of oleoresin capsicum and capsaicin, researchers Olajos and Salem of the U.S. Army Edgewood Chemical and Biological Center noted additional and potentially long-term risks from capsaicin exposure. Capsaicin has been the subject of research for its effects on nerve tissue and is known to facilitate the degeneration of nerve terminals, a problem which results in desensitization to pain and thermal regulation.<sup>28</sup> Decreasing the body's ability to sense pain and temperature changes may affect the long-term health and safety of individuals exposed to pepper spray. Similarly, researchers note that repeated pepper spray exposure may cause lasting nerve damage in corneal tissue, thus reducing sensitivity.<sup>29</sup> Studies also note a marked decrease in physical responses to subsequent exposures,<sup>30</sup> meaning that as the use of pepper spray increases, it will likely become less effective against those previously exposed.

The toxicity study by Olajos and Salem cites several experiments which indicate capsaicin and capsaicinoids as having a mutagenic effect on organs; they warn, "the prudent approach from the health hazard perspective is that these compounds should be regarded as having genotoxic potential."<sup>31</sup> The researchers further cite studies in which capsaicin was reported to induce or facilitate changes in the body leading to various types of cancer, including gastric, esophageal, and skin cancers, and conclude that enough evidence exists to suggest that capsaicin may cause tumors.<sup>32</sup> A recent study by Reilly and colleagues demonstrated that "capsaicinoids produced acute pulmonary inflammation and respiratory cell injury in experimental animals and in human lung epithelial cells."<sup>33</sup> This information suggests that the full health ramifications of the capsaicinoids in pepper spray have not yet been fully identified.

### **Determining Safety**

Discussions about the overall safety of pepper spray

indicate a dearth of empirically-based research and differing expectations for determining its safety. Arguments suggesting that pepper spray is safe point to the widespread use of pepper spray by law enforcement, the temporary nature of many of the effects, and the lack of definitive evidence showing that pepper spray is not safe. Arguments disputing pepper spray's overall safety cite numerous reported injuries and deaths related to pepper spray exposure, clinical studies indicating potential adverse effects, and the need for additional research prior to its expanded use. Due to the lack of well-constructed, data-driven research, policy makers seeking guidance on safe and effective ways to utilize pepper spray receive limited and biased information.

Since pepper spray is not regulated and tested for safety under pharmacological standards, researchers, policy makers, and the public only learn of its health risks after the discovery of accumulated injuries or deaths.<sup>34</sup> Researchers for the National Institute of Justice (NIJ) noted the widespread acceptance of pepper spray by law enforcement agencies based on the premise that it was "a safe and effective method of incapacitating violent or threatening subjects," but they warned, "[t]here is, however, a lack of objective data on OC, its risks and its benefits."<sup>35</sup> Over a decade later, reports discussing the safety of pepper spray continue to rely heavily on anecdotal or disputable evidence and vary widely in their conclusions about safety.

In a recent report commissioned by the New Zealand Ministry of Health, researcher Broadstock conducted a detailed analysis of seven relevant studies to determine the safety of pepper spray. In each study, Broadstock noted significant limitations, including small sample sizes, no data on possible confounders, subjective information from officers, missing information and potential for bias, lack of control groups, and no long-term study analyzing effects of pepper spray beyond a few hours.<sup>36</sup> Nevertheless, Broadstock noted that the adverse health effects described in several studies "appear reasonably likely to have resulted from pepper spray" and suggested that a "careful approach ... would be to oppose the deployment or usage of pepper spray" until more thorough independent research evaluates the health risks.<sup>37</sup>

### **Certain Populations at Risk of Adverse Reactions**

Although the immediate effects of pepper spray may dissipate relatively quickly, medical experts note some populations are at increased risk of harm – including death – resulting from pepper spray exposure. Those with impaired eye conditions are at increased risk of corneal abrasions. Similarly, exposure to pepper spray worsens skin conditions such as allergic dermatitis and increases allergic sensitization.<sup>38</sup>

More significantly, however, several studies implicate pepper spray exposure as a related or contributing factor in numerous deaths, often involving individuals with asthma or respiratory complications.<sup>39</sup> Specifically, individuals with asthma and other respiratory compromising conditions are particularly vulnerable to the bronchial constriction effects of pepper spray. Capsaicin exposure may result in a 40 percent decrease in airflow, a significant risk for those already predisposed to asthmatic attacks or suffering from diminished breathing capability.<sup>40</sup> At least one well-documented death has occurred where the individual died as a direct result of severe bronchial constriction precipitated by pepper spray exposure.<sup>41</sup> Positional restraint, which increases strain on respiration, has also been associated with deaths where individuals were sprayed with pepper spray.<sup>42</sup>

Individuals with underlying cardiac or pulmonary diseases are equally vulnerable to the effects of pepper spray. One researcher, in examining the effects of restraint in unexpected deaths, noted an increased risk for those exhibiting signs of “excited delirium,” a term used to describe acute psychiatric agitation, and warned that individuals with heart disease are particularly vulnerable when exposed to pepper spray.<sup>43</sup> Researchers Olajos and Salem report that the chemical properties of capsaicin induce “cardiorespiratory dysfunction” as characterized by changes in blood pressure,<sup>44</sup> and additionally note that the pain and anxiety resulting from pepper spray exposure may also “elicit cardiovascular changes that may have significant implications for individuals with pre-existing disease.”<sup>45</sup>

Individuals taking prescribed antipsychotic drugs or

using cocaine also may be more susceptible to the dangerous effects of pepper spray. Some prescription and non-prescription drugs affect the body’s autonomic system, which includes blood flow, heart rate, and airflow. Pepper spray may have the effect of altering or disrupting the autonomic functions of the body, which may result in death when used against individuals already under the influence of drugs. As one researcher noted about unexpected in-custody deaths attributed to other drugs, “It may be that pepperspray [sic] was the precipitating agent, in combination with other drugs and underlying disease, that caused a lethal event.”<sup>46</sup> Thus, there may be increased risk of death when pepper spray is used against individuals under the influence of psychotropic drugs, prescription or otherwise.

Finally, some researchers suspect that dangers and deaths associated with pepper spray may be underestimated because medical examiners may not adequately consider pepper spray as linked to other factors causing death. One researcher re-examining 21 reported deaths in police custody noted that these types of high-profile cases often pose a dilemma for medical examiners: “[t]he autopsy findings are frequently non-specific, detailed witness descriptions of the circumstances of the terminal event are often not initially obtained, and accurate accounts are difficult to collect later because of potential litigation.”<sup>47</sup> Similarly, Broadstock criticized previous safety studies noting that the autopsy reports used “are notoriously non-specific with little pathological evidence making conclusions open to interpretation and bias.”<sup>48</sup>

### **Risk to Staff**

In an effort to demonstrate the effectiveness and safety of pepper spray, some agencies have required staff to submit to being sprayed with pepper spray during training, suggesting that the exposure will help staff better understand the effects with the goal of increasing compassion for victims and preparedness in the event of their own exposure.<sup>49</sup> Due to growing concerns over potential health risks to police officers, researchers recommend the discontinuation of such practices.<sup>50</sup> Such policy readjustments suggest that some administrators recognize that not enough is

known about the hazards of pepper spray exposure to warrant its routine use in training, thus lending support to the theory that pepper spray indeed poses health risks to those who are exposed.

### **Impact on Children**

Children may face the same, if not greater, risks of harm as adults exposed to pepper spray, and no studies or reports suggest that pepper spray is safe for use on children. Many juvenile justice, medical, and mental health experts note that there are differences in children's psychological and physical development which contra-indicate the use of pepper spray as an appropriate method of control.<sup>51</sup> The airway of a small child is more fragile than an adult's, and children have not yet fully developed the muscles which normally aid in breathing.<sup>52</sup> Children with asthma are at especially significant risk for severe respiratory compromise during restraint – a situation which is only exacerbated by exposure to irritants<sup>53</sup> such as pepper spray.

Several studies cite the serious adverse effects of an accidental pepper spray on a four-week-old healthy infant. The infant experienced a multitude of adverse symptoms including respiratory failure, which required oxygen therapy and mechanical ventilation; altogether, the infant remained hospitalized for 13 days. In the following 12-month period, the child experienced several episodes of viral respiratory infections,<sup>54</sup> indicating the effects of pepper spray may be more severe and longer-lasting on children than on adults.

### **Impact on Children with Disabilities**

Many children entering juvenile justice facilities suffer from emotional and mental health disorders which may go undiagnosed and untreated, resulting in symptomatic behavioral problems. In fact, children with mental disorders in juvenile justice facilities may comprise up to 50-75 percent of the population, and many have more than one co-occurring mental health or substance abuse problem.<sup>55</sup> Specifically, children who enter the juvenile system often suffer from anxiety and mood disorders including Post-Traumatic Stress Disorder (PTSD), disruptive behavior disorders including Attention Deficit Hyperactivity Disorder (ADHD), or

schizophrenia and other psychotic disorders.<sup>56</sup> Pepper spray is often cited as ineffective against individuals with mental illness and likely has an exacerbating effect on increasing children's anger and trauma. Mental Health America (MHA), formerly known as the National Mental Health Association, cites sanctions like pepper spray as "detrimental to young people with emotional and behavioral disorders or those with histories of maltreatment."<sup>57</sup> MHA further states in its policy position that incarcerated youth have "[t]he right to be free from corporal punishment, chemical restraints, and sexual abuse or coercion."<sup>58</sup>

### Use in the Juvenile Justice System

Children in a juvenile correctional setting present special circumstances that, for many reasons, warrant greater consideration and caution in the use of pepper spray. First, the confined environment of a juvenile correctional facility allows for increased risks of harm to both youth and staff, as pepper spray “may produce significant toxic effects” in enclosed spaces.<sup>59</sup> Secondly, under current legal standards, juveniles held in state custody are entitled to a reasonable expectation of safety, medical and mental health care, and rehabilitative treatment.<sup>60</sup> The State is under special legal and moral obligation to address the needs of children in its custody in ways which nurture their development and prepare them for reintegration into their communities. Dana Schoenberg and Mark Soler of the Center for Children’s Law and Policy note that youth in correctional settings also “have a right to protection from unnecessary and wanton infliction of pain, the unwarranted or excessive use of restraints, and excessive uses of force.”<sup>61</sup> Finally, as juvenile justice expert Barry Krisberg, President of the National Council on Crime and Delinquency, warns, pepper spray use in secure juvenile facilities “usually creates more problems than it solves,” as “[s]taff come to rely on chemical agents in lieu of communicating with youngsters to defuse confrontational situations.”<sup>62</sup> Several national juvenile justice organizations have recommended the prohibition of chemical restraints against children in juvenile facilities – either completely, or limited to extreme circumstances and only under stringent controls.<sup>63</sup> Many juvenile facilities have chosen not to use pepper spray against youth in detention facilities,<sup>64</sup> either in response to settlement agreements or based on a set of core values promoting the well-being of the children in their custody.

#### Legal Standards

The federal courts have weighed in on this issue as well. In 1974, a Texas federal district court concluded in the landmark case of *Morales v. Turman* that the State’s use of chemical agents “in situations not posing an imminent threat to human life or an imminent and substantial threat to property” violated the Eighth Amendment.<sup>65</sup> More recently, in *Alexander S. v. Boyd* (1995), a federal

district court in South Carolina found that “conditions in the state’s juvenile corrections facilities violated the youth’s substantive due process rights to reasonably safe conditions of confinement,” citing staff’s regular use of a chemical agent against youth among other serious problems.<sup>66</sup> Some legal experts contend that expanded use of pepper spray by TYC would violate the *Morales v. Turman* settlement agreement, which explicitly prohibits the use of chemical agents except when necessary to control a riot.<sup>67</sup> More recently, U.S. Department of Justice (DOJ) investigations into juvenile facilities have found inappropriate use of pepper spray by staff against youth for minor infractions, in response to symptoms of mental illness, or in tandem with severe physical abuse.<sup>68</sup> Additional abusive practices include delayed decontamination or medical attention, leaving youth to suffer extended painful effects of pepper spray.<sup>69</sup> Such abusive practices “have profound effects on the mental health of the victims, including increases in violent behavior toward others, post-traumatic stress disorder, and suicidal behavior.”<sup>70</sup>

Schoenberg and Soler of the Center for Children’s Law and Policy warn that DOJ findings in other states, specifically California, “should serve as a cautionary tale to TYC” in regards to the use of pepper spray.<sup>71</sup> In a recent findings letter on conditions of confinement in Los Angeles County Juvenile Halls, DOJ investigators noted multiple occasions in which staff utilized pepper spray against youth in minor situations that escalated because “staff lacked the skills to de-escalate incidents in which youth failed to comply with orders, [thus] causing minor problems to become major confrontations that otherwise would not have required spray.”<sup>72</sup> Staff were also found to have used pepper spray against youth specifically exempted, including children with respiratory problems, pregnant girls, youth on psychotropic medications, and suicidal youth.<sup>73</sup>

#### Possible Unintended Consequences

In their analysis of a working draft of TYC’s proposed change to the use of force policy, Schoenberg and Soler suggested that the changes in wording could be

interpreted to encourage the use of pepper spray for behavioral issues of non-compliance or in situations where youth are merely disruptive, since the draft removes specific safeguards which would protect youth from the abusive use of pepper spray.<sup>74</sup> In other words, changes in TYC policy, which in effect increase the use of pepper spray, may not achieve the safety goals sought by TYC as effectively as other measures, and instead risk violating youths' established rights to safe treatment and protection from cruel and unusual punishment.

### Placement in the Use of Force Continuum

The location of pepper spray in the use of force continuum varies among agencies. Some consider pepper spray as a relatively benign method of control, placing it low on the continuum. In 1994, the NIJ suggested that pepper spray belonged after physical pain compliance and before impact weapons on the use of force continuum, based largely on the stated belief that “there appears to be no verified long-term physical effects or health risks associated with the use of OC.”<sup>75</sup>

Some law enforcement representatives note that as pepper sprays continue to increase in strength and “hotness,” agencies might consider moving pepper spray above other methods of restraint to near or above the level of an intermediate weapon.<sup>76</sup> At least one federal court has determined that the harm resulting from pepper spray use is so severe that it “satisfied the definition of a dangerous weapon.”<sup>77</sup> Researchers Smith and Stopford point to another federal case in which the court ruled that pepper spray should not be used except in situations of absolute necessity to incapacitate dangerous youth.<sup>78</sup> The Ella Baker Center for Human Rights declares that the potential adverse health effects of pepper spray include death; therefore, the deployment of pepper spray risks the application of “extreme and excessive force” and thus violates rights afforded by the U.S. Constitution and international human rights laws.<sup>79</sup>

Information from effectiveness studies indicates that implementation of pepper spray does not lead to a reduction in overall use of force.<sup>80</sup> Researchers hypothesize that this is because officers carrying pepper spray may feel more confident, and such “over-assurance may increase the projection of assertive/aggressive behaviors or increase the willingness of officers to enter into more face-to-face situations.”<sup>81</sup> In fact, officers armed with pepper spray may actually increase occasions for risk to themselves and their suspects. Thus, a directive to expand pepper spray usage may actually exacerbate problem situations by encouraging the preemption of verbal de-escalation or other non-violent methods of control.<sup>82</sup>

Juvenile corrections staff must thoroughly understand the range of options that exist along the use of force continuum; if not proficient in primary control and de-escalation techniques, personnel may increasingly rely on pepper spray as an option of force. One expert drawing from personal experience in reviewing chemical restraints in juvenile facilities noted the repeated problems of pepper spray use in situations where staff interactions with defiant youth often led to “escalating cycles of provocation and reaction” rather than the de-escalation necessary to restore control.<sup>83</sup> Such reports reinforce concerns that pepper spray, while perhaps an important tool as an alternative to lethal or potentially lethal force, should not be used as a substitute for lower-level alternatives to force in juvenile facilities.<sup>84</sup>

### Best Practices for Improving Safety

The TYC administration's emphasis on increasing control through an upward adjustment in the use of force continuum appears to be inconsistent with the agency's goal of rehabilitating children. Evidence-based research suggests that the application of deterrent sanctions, such as pepper spray, may actually result in a counterproductive "deteriorating cycle of defiance," whereas intensive treatment models hold greater promise to reduce violence and rates of recidivism.<sup>85</sup> Several studies show that treatment programs with a therapeutic emphasis that are developed and implemented in consultation with child and adolescent psychologists are more effective at reducing aggression and defiance in youth offenders, particularly those with mental health needs.<sup>86</sup>

A solid understanding of the psychological development stages of children is essential in developing tools for effective behavior management in juvenile corrections facilities. In a speech delivered to the National Juvenile Corrections and Detention Forum, Steven Rosenbaum warned against the increasing "wholesale adoption" of adult system-modeled tactics, including pepper spray use, without adequate consideration of the relevant differences between adolescents and adults.<sup>87</sup> He advised that "such tactics are especially prone to abuse when staff are not adequately trained."<sup>88</sup> Rosenbaum further stated:

[W]e have seen that officers trained in adult prison practices, or who come from a background of adult corrections, are often bewildered by the reactions of juveniles, by the failure of traditional correctional responses to achieve desired results. When staff are trained or allowed to resort too quickly to threats and force in the face of non-compliant adolescent behavior, minor incidents get escalated and the risk of harm increases for both the juvenile and the officer.<sup>89</sup>

When confronted with problems in institutional control, some experts suggest that a comprehensive review and

independent evaluation of the use of force are most effective to ensure that appropriate control tactics are being used.<sup>90</sup> Too often, restraint techniques originally intended for use as a last resort or to prevent imminent danger are inappropriately employed as a behavioral intervention.

National juvenile justice experts convened in May, 2007, as a Blue Ribbon Task Force to evaluate Texas' juvenile justice system and recommend solutions. In the final report, the Task Force expressed concern about the use of pepper spray to address safety in juvenile facilities, particularly in an institution which "has not yet seen a shift in culture away from punishment and towards treatment."<sup>91</sup> The Task Force also recommended that TYC "find ways to decrease all uses of force" through alternative methods, emphasizing greater priority and resource allocation toward training in skills-based techniques which promote de-escalation in crisis situations.<sup>92</sup> Echoing the recommendations of the Blue Ribbon Task Force, one expert in adolescent care states that, "[t]he most effective means of reducing risks associated with restraints is prevention of their use" through "effective de-escalation and crisis intervention strategies."<sup>93</sup>

### Policy Recommendations

While TCJC strongly supports the goal of improving safety for both youth and staff in TYC institutions, based on the results of our research we cannot recommend the escalation of pepper spray use against youth as a reasonable solution to address problems in TYC facilities. Pepper spray poses significant risks which make it inappropriate as a permanent, first-response policy to youth non-compliance.

- Conduct regular audits on the use of pepper spray in TYC facilities to alert administrators of any problems before they become liabilities.

Instead, we urge the TYC leadership to focus its efforts on implementing the 80<sup>th</sup> Legislature's mandates outlined in S.B. 103 and the recommendations of its own Blue Ribbon Task Force in addressing the pervasive, underlying issues driving the increased levels of violence in TYC facilities. (See *Appendix B for a list of key legislative mandates and expert recommendations that would positively impact safety.*) We also suggest that TYC commission an independent and comprehensive evaluation of the use of force in TYC facilities, which would help the agency identify and develop specific solutions to address the root problems of endemic violence in TYC facilities. Lastly, it is critical that TYC provide its direct care staff with the training needed to de-escalate crisis situations without resorting to pepper spray or physical restraint.<sup>94</sup>

However, should TYC decide to continue its push toward expanded pepper spray use, TCJC recommends that the agency take the following three critical actions:

- Convene a collaborative working group – including representatives with critical perspectives from the juvenile justice, health care, advocacy, and legislative arenas – that will consider whether the use of pepper spray is the best course of action to reduce violence in TYC facilities, as well as provide input on any policies or procedures regarding limitations on pepper spray use, training, decontamination, and other accountability measures.
- Require that an external review panel be established for all situations involving pepper spray against youth.



## Conclusion

While pepper spray is widely accepted by the law enforcement and adult correctional communities as an important tool in aiding in subject control, the significant differences that exist in the State's relationship to incarcerated children should give TYC pause in its decision to expand use of pepper spray in its juvenile facilities. Pepper spray gained its popularity as an alternative to lethal or near-lethal force – situations which should never apply to children confined in a well-run juvenile facility.<sup>95</sup> Further, as it undertakes badly-needed reform efforts, TYC should not strive to emulate the adult correctional system, as it has a different statutory obligation to the still-developing population in its care.

Although we understand that the children sent to TYC pose a significant challenge in terms of behavior management, we nonetheless recognize them as children who often suffer from a history of abuse, mental illness, or emotional disturbance. Children in TYC facilities are perceived as the “worst of the worst”; yet fewer than 40 percent enter TYC for violent crimes.<sup>96</sup> Lacking better alternatives in their own communities, too many children sent to TYC facilities do not receive the treatment they need and are legally entitled to, instead often facing dangerous and neglectful conditions.

TYC's stated goal of reducing injuries to staff and children is highly commendable; however, expanding use of pepper spray to facilitate safety appears shortsighted. Ultimately, the real solutions are not found in a 3-ounce can of pepper spray, but rather in the well-functioning policies, programs, and practices of the agency. The use of pepper spray cannot substitute for or facilitate a healthy institutional culture, particularly where the explicit goal of the State and expectation of the community is treatment and rehabilitation.

In order to gain and keep control of its institutions, TYC must address the underlying issues at the crux of its problems, specifically understaffing,<sup>97</sup> inadequate staff training,<sup>98</sup> and poorly-established behavioral and mental health assessment and treatment programs.

Particularly in TYC, where the system has failed to demonstrate trustworthiness and compliance with minimum standards of child care and transparency, the anticipated positive effects of expanding pepper spray use against children – coupled with a relative lack of treatment and programming – appear more likely to aggravate problems in an already struggling system.

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## Notes

<sup>1</sup> SB 103 authored by Senator Juan “Chuy” Hinojosa includes the following reforms: enhanced community-based programs as an alternative to incarceration; a parents' Bill of Rights; a special prison prosecution unit and an Office of Inspector General for the independent investigation and prosecution of crimes occurring in youth correctional facilities; an independent Ombudsman to act as an advocate for incarcerated youth; public reporting of cases of abuse and neglect; a prohibition on the incarceration of misdemeanants in TYC; improved procedures governing the length of a child's placement in TYC; a mandate to improve youth re-integration back into his or her home community.

<sup>2</sup> Will Harrell, “Proliferation of OC Spray,” memo to Billy Humphrey, cc: Dimitria Pope and Ed Owens, 25 July 2007.

<sup>3</sup> The current TYC policy, specified in the Texas Administrative Code, General Administrative Policy (GAP) § 97.23, clearly delineates the use of force continuum in TYC institutions to the following order: 1) non-verbal and verbal interventions, including team interventions and problem-solving groups, 2) physical interventions, including manual and mechanical restraints, and 3) OC spray.

<sup>4</sup> Dimitria D. Pope, “Executive Directive #2 FY07,” memo to Institution Superintendents, 2 August 2007.

<sup>5</sup> Ibid. Pope states in the Directive, “we must change the way force is applied to reduce the number and severity of injuries to youth and staff. According to the agency's Workers' Compensation report, we have had 447 workers' compensation claims due to restraint-related incidence. Another 95 claims were due to assault by youth. The University of Texas Medical Branch (UTMB) injury report indicates 913

youth were injured due to physical restraint during the period of 9/01/06 through 6/30/07.”

<sup>6</sup> Ibid.

<sup>7</sup> Texas Appleseed and Advocacy, Inc. have since returned to state court arguing that TYC has not complied with the court order and has filed a motion requesting the court’s enforcement. Mike Ward, “Advocacy Groups Claim Youth Commission isn’t Following Court Order on Pepper Spray Use,” *Austin American-Statesman*, 23 October 2007, <<http://www.statesman.com/search/content/news/stories/local/10/23/1023tyc.html>> (31 October 2007).

<sup>8</sup> Texas Secretary of State (SOS), “Public Safety and Corrections: Texas Youth Commission: Security and Control,” *Texas Register*, 32, no. 44 (2 November 2007): 7860-7864, <<http://www.sos.state.tx.us/texreg/archive/November22007/PROPOSED/37.PUBLIC%20SAFETY%20AND%20CORRECTIONS.html#195>> (6 November 2007).

<sup>9</sup> Lisa Sandberg, “Suit Says TYC Breaks Pepper-Spray Rules,” *Houston Chronicle*, 19 November 2007, <<http://www.chron.com disp/story.mpl/metropolitan/5315740.html>> (19 November 2007). The advocacy groups note TYC’s overall increase in pepper spray use this year and cite specifically the agency’s use of pepper spray against youth in “passive-resistance situations,” including youth not getting out of bed, talking during lunch, or not following dress code.

<sup>10</sup> Barry Krisberg, “Krisberg: For Youths’ Sake, Change TYC Policy,” *Austin American-Statesman*, Editorial, 28 August 2007, <[http://www.statesman.com/opinion/content/editorial/storie08/28/0828krisberg\\_edit.html](http://www.statesman.com/opinion/content/editorial/storie08/28/0828krisberg_edit.html)> (28 August 2007).

<sup>11</sup> Mike Ward, “Pepper Spray Use at Youth Commission raws Fire,” *Austin American-Statesman*, 24 August 2007, <<http://www.statesman.com/news/content/news/stories/local/08/24/0824pepper.html>> (28 August 2007).

<sup>12</sup> Christopher A. Reilly, Dennis J. Crouch, and Garold S. Yost, “Quantitative Analysis of Capsaicinoids in Fresh Peppers, Oleoresin Capsicum and Pepper Spray Products,” *Journal of Forensic Sciences* 46, no. 3 (2001): 502.

<sup>13</sup> Defense Technology, “2006 Specification Manual,” photocopy provided by request made to TYC.

<sup>14</sup> David K. DuBay, “Health Risk Analysis of First Defense

Pepper Spray Using an Acute Whole-Body Inhalation Exposure,” *Defense Technology 2003 Specification Manual*, <<http://www.officerstore.com/images/healthrisk.pdf>> (25 September 2007).

<sup>15</sup> Jim Herron Zamora, “Pepper Spray Study is Tainted,” *San Francisco Gate*, 20 May 1996, <<http://sfgate.com/cgi-bin/article.cgi?f=/e/a/1996/05/20/NEWS10592.dtl>> (27 September 2007.)

<sup>16</sup> International Association of Chiefs of Police (IACP), *Pepper Spray Evaluation Project: Results of the Introduction of Oleoresin Capsicum (OC) into the Baltimore County, MD, Police Department*, report prepared for the U.S. Department of Justice, National Institute of Justice, 22 June 1995, iv, <<http://www.theiacp.org/research/peppersprayeval.pdf>> (24 September 2007).

<sup>17</sup> Michael D. Cohen, “The Human Health Effects of Pepperspray – A Review of the Literature and Commentary,” *Journal of Correctional Health Care* 4, no. 1 (1997): 74.

<sup>18</sup> Eugene J. Olajos and Harry Salem, “Riot Control Agents: Pharmacology, Toxicology, Biochemistry and Chemistry,” *Journal of Applied Toxicology* 21 (2001): 376-77.

<sup>19</sup> C. Gregory Smith and Woodhall Stopford, “Health Hazards of Pepper Spray,” originally published in *North Carolina Medical Journal* 60 (1999): 268-274, available at <<http://www.geocities.com/CapitolHill/6416/smith-ok.html>> (1 October 2007), see subheading “Health Effects of Capsaicin.”

<sup>20</sup> Minna Vesaluoma, Linda Mueller, Juana Gallar, Alessandro Lambiase, Jukka Moilanen, Tapani Hack, Carlos Belmonte, and Timo Tervo, “Effects of Oleoresin Capsicum Pepper Spray on Human Corneal Morphology and Sensitivity,” *Investigative Ophthalmology & Visual Science* 41, no. 8 (2000): 2140.

<sup>21</sup> Robert J. Kaminski, Steven M. Edwards, and James W. Johnson, “Assessing the Incapacitative Effects of Pepper Spray during Resistive Encounters with Police,” *Policing* 22, no. 1 (1999): 23.

<sup>22</sup> Olajos and Salem, 360-361, 363.

<sup>23</sup> Smith and Stopford, see subheading “Health Effects of Capsaicin.”

<sup>24</sup> Gary M. Vilke and Theodore C. Chan, “Less Lethal Technology: Medical Issues,” *Policing* 30, no. 3 (2007): 348.

- <sup>25</sup> Jason Smith and Ian Greaves, "The Use of Chemical Incapacitant Sprays: A Review," *Journal of Trauma: Injury, Infection, and Critical Care* 52, no. 3 (2002): 597.
- <sup>26</sup> Smith and Stopford, see subheading "Occupational Risks of OC Exposure."
- <sup>27</sup> Barry Krisberg, "General Corrections Review of the California Youth Authority," 23 December 2003, 30, <<http://prisonlaw.com/pdfs/CYA5.pdf>> (29 October 2007). Report notes Office of Inspector General (OIG) reports of youth "who had received severe burns to their skin because they were not permitted timely access to showers after being sprayed."
- <sup>28</sup> Olajos and Salem, 364-365, 380.
- <sup>29</sup> Vesaluoma, et al, 2145.
- <sup>30</sup> Olajos and Salem, 365, 380.
- <sup>31</sup> *Ibid.*, 371-72.
- <sup>32</sup> *Ibid.*, 372.
- <sup>33</sup> Christopher A. Reilly, Jack L. Taylor, Diane L. Lanza, Brian A. Carr, Dennis J. Crouch, and Garold S. Yost, "Capsaicinoids Cause Inflammation and Epithelial Cell Death through Activation of Vanilloid Receptors," *Toxicological Sciences* 73 (2003): 180.
- <sup>34</sup> Cohen, 74.
- <sup>35</sup> U.S. Department of Justice (DOJ), National Institute of Justice, *Oleoresin Capsicum: Pepper Spray as a Force Alternative*, March 1994, 1, <<http://www.ncjrs.gov>> (10 September 2007).
- <sup>36</sup> Marita Broadstock, "What is the Safety of 'Pepper Spray' use by Law enforcement or Mental Health Service Staff?" *NZHTA Tech Brief Series* 1, no. 2 (2002): 5-11, <[http://nzhta.chmeds.ac.nz/publications/pepper\\_spray.pdf](http://nzhta.chmeds.ac.nz/publications/pepper_spray.pdf)> (27 September 2007).
- <sup>37</sup> *Ibid.*, 15.
- <sup>38</sup> Smith and Stopford, see subheading "Health Effects of Capsaicin."
- <sup>39</sup> American Civil Liberties Union (ACLU) of Southern California, "Pepper Spray Update: More Fatalities, More Questions," (Los Angeles, CA, June 1995): 21-30, <[http://www.aclu-sc.org/attach/p/Pepper\\_Spray\\_New\\_Questions.pdf](http://www.aclu-sc.org/attach/p/Pepper_Spray_New_Questions.pdf)> (18 September 2007); Olajos and Salem, 363; Smith and Stopford, see subheading "Discussion."
- <sup>40</sup> Darrell Ross and Bruce K. Siddle, "Use of Force Policies and Training Recommendations: Based on the Medical Implications of Oleoresin Capsicum," unpublished report prepared for PPCT Research, 3, <<http://www.ppctresearch.com/Documents/OCspray.pdf>> (1 October 2007).
- <sup>41</sup> Vilke and Chan, 346. In reviewing several reports which associate pepper spray exposure with numerous deaths and injuries, Vilke and Chan cite a study by Steffee, et al, in which the researchers reported autopsy results of one individual indicating severe lung damage and bronchospasm attributable to pepper spray as the cause of death.
- <sup>42</sup> Michael S. Pollanen, David A. Chiasson, James T. Cairns, and James G. Young, "Unexpected Death Related to Restraint for Excited Delirium: A Retrospective Study of Deaths in Police Custody and in the Community," *Canadian Medical Association Journal* 158, no. 12 (1998): 1606.
- <sup>43</sup> *Ibid.*, 1604, 1606.
- <sup>44</sup> Olajos and Salem, 365.
- <sup>45</sup> *Ibid.*, 382.
- <sup>46</sup> Cohen, 77.
- <sup>47</sup> Ronald L. O'Halloran and Janice G. Frank, "Asphyxial Death during Prone Restraint Revisited: A Report of 21 Cases," *American Journal of Forensic Medicine and Pathology* 21, no. 1 (2000): 39.
- <sup>48</sup> Broadstock, 8.
- <sup>49</sup> *Ibid.*, 16.
- <sup>50</sup> Smith and Stopford, see subheading "Discussion."
- <sup>51</sup> T.D. Johnson, "Respiratory Assessment in Child and Adolescent Residential Treatment Settings: Reducing Restraint Associated Risks," *Journal of Child and Adolescent Psychiatry Nursing* 30, no.3 (2007). Article speaks to the increased risk of harm in using restraints against children because of the differences in their psychosocial and physical development. See also, David W. Springer and colleagues, *Transforming Juvenile Justice in Texas: A Framework for Action*, a report by the Blue Ribbon Task Force prepared for the Texas Youth Commission, (Austin: University of Texas, School of Social Work, 2007): 37. The Task Force states, "Applying adult models of criminal justice to delinquent youth

is inappropriate, at best, and insufficient and negligent, at worst, as adolescents' neurodevelopment is still in process and not yet fully developed as an adult brain." See also Scott Henson, "Brain Science of Juvenile Crime: Frontal Cortex of Youth Underdeveloped," Grits for Breakfast Weblog, 1 October 2007, <<http://gritsforbreakfast.blogspot.com/2007/10/brain-science-of-juvenile-crime-frontal.html>> (2 October 2007). Henson, citing an article by LiveScience, argues the scientific research on developmental differences between youth and adults necessitate different management techniques.

<sup>52</sup> Johnson, see subheading "Basic Anatomy and Physiology."

<sup>53</sup> Ibid., see subheadings "Basic Anatomy and Physiology" and "Asthma."

<sup>54</sup> Olajos and Salem, 379; Vilke and Chan, 346. Both cite Billmire, et al., "Pepper-Spray-Induced Respiratory Failure Treated with Extracorporeal Membrane Oxygenation," *Pediatrics* 98, no. 5 (1996): 961-3.

<sup>55</sup> Mental Health America (MHA), "Fact Sheet: Prevalence of Mental Disorders among Children in the Juvenile Justice System," <<http://www1.nmha.org/children/justjuv/prevalence.cfm>> (11 October, 2007).

<sup>56</sup> Ibid.

<sup>57</sup> National Mental Health Association (NMHA), "Privatization and Managed Care in the Juvenile Justice System," 25, <<http://www1.nmha.org/children/justjuv/juvenilejustice-privatization.pdf>> (11 October, 2007).

<sup>58</sup> Mental Health America (MHA), "Mental Health Treatment in Correctional Facilities Statement of Policy," <<http://www1.nmha.org/position/ps55.cfm>> (11 October, 2007).

<sup>59</sup> Olajos and Salem, 382.

<sup>60</sup> Steven H. Rosenbaum, Special Litigation Section, Civil Rights Division, U.S. Department of Justice, speech before the Fourteenth Annual National Juvenile Corrections and Detention Forum, Long Beach, CA, on 16 May 1999, subheading "II. Investigations and Litigation," <<http://www.usdoj.gov/crt/split/documents/juvspeech.htm>> (4 September 2007).

<sup>61</sup> Dana L. Schoenberg and Mark Soler, Center for Children's Law and Policy, letter to Will Harrell, Chief Ombudsman for the Texas Youth Commission, 17 September 2007, 2.

<sup>62</sup> Krisberg, "For Youths' Sake."

<sup>63</sup> Schoenberg and Soler, 2-3. Citing the Institute for Judicial Administration/American Bar Association Juvenile Justice Standards on Corrections Administration, the American Correctional Association standards for Juvenile Training Schools, the Annie E. Casey Foundation's Juvenile Detention Alternatives Initiative Standards for Facility Self-Assessment. See also, National Mental Health Association (NMHA), "Advocacy Guide to Rights Protection for Youths in the Juvenile Justice System," (Alexandria, VA): 8, <<http://www1.nmha.org/children/justjuv/juvenilejustice-rights.pdf>> (11 October 2007).

<sup>64</sup> Schoenberg and Soler, 14.

<sup>65</sup> Abrams, 1009, quoting *Morales v. Turman*, 383 F. Supp. 53, 77 (E.D. Tex. 1974).

<sup>66</sup> Ibid., citing *Alexander S. v. Boyd* 876 F. Supp. 773 (D.S.C. 1995).

<sup>67</sup> Ward, "Pepper Spray Use."

<sup>68</sup> Abrams, Discussion on DOJ findings which cite facilities in California, Georgia, and Mississippi.

<sup>69</sup> Ibid., 1032-33; Krisberg, "General Corrections," 30.

<sup>70</sup> Cohen, 83.

<sup>71</sup> Schoenberg and Soler, 10.

<sup>72</sup> U.S. Department of Justice (DOJ), Civil Rights Division, letter of finding for the Los Angeles County Juvenile Halls, California by Ralph F. Boyd, Jr., Assistant Attorney General to Yvonne B. Burke, Chair, Los Angeles County Board of Supervisors, 9 April 2003, 21 <[http://www.usdoj.gov/crt/split/documents/la\\_county\\_juvenile\\_findlet.pdf](http://www.usdoj.gov/crt/split/documents/la_county_juvenile_findlet.pdf)> (9 September 2007).

<sup>73</sup> Ibid.

<sup>74</sup> Schoenberg and Soler, 7-10. Schoenberg and Soler note the proposed use of force policy "eliminates a full page of requirements in existing policy regarding use of OC, including identification of the limited circumstances in which OC is approved, approval only in TYC high restriction institutions and high restriction contract care programs, requirement of TYC training for staff who use it, and limitation on those who routinely carry OC to top facility administrators and security personnel." Furthermore, they note that the proposed policy eliminates safeguards in other areas including: staff

intervention in excessive force situations; requirements that injured youth receive immediate assessment by nursing staff; and, documentation of injury in electronic medical records.

<sup>75</sup> U.S. DOJ, *Oleoresin Capsicum: Pepper Spray*, 5.

<sup>76</sup> Gary T. Klugiewicz and Dave Young, "Hot Shots," *Police*, October 2003, 60, <<http://www.policemag.com/Articles/2003/10/Hot-Shots.aspx>> (10 September 2007).

<sup>77</sup> *United States v. Neill*, 166 F.3d 943, 950. A dangerous weapon is defined as "an instrument capable of inflicting death or serious bodily injury." In *U.S. v Neill*, an asthmatic woman sprayed with pepper spray suffered severe and repeated asthma attacks requiring steroid treatments and was required to take asthma medication daily for the rest of her life. The court decided the "extreme pain and prolonged impairment of a bodily organ" justified the categorization of pepper spray a dangerous weapon.

<sup>78</sup> Smith and Stopford, see subheading "Discussion," citing *Horton v. Williams* (W.D. Wash. 1994).

<sup>79</sup> Lenore Anderson, Jo Hirschmann, and Van Jones, "When Police Play Russian Roulette ...": The Case for a Moratorium on Police Use of Pepper Spray," unpublished report prepared for the Ella Baker Center for Human Rights, (San Francisco, CA): 3, <[http://www.nopepperspray.org/when\\_police\\_play\\_russian\\_roulette\\_ella\\_baker\\_center.pdf](http://www.nopepperspray.org/when_police_play_russian_roulette_ella_baker_center.pdf)> (18 September 2007).

<sup>80</sup> Richard C. Lumb and Paul C. Friday, "Impact of Pepper Spray Availability on Police Officer Use of Force Decisions," *Policing* 20, no. 1 (1997): 145.

<sup>81</sup> *Ibid.*

<sup>82</sup> There is already anecdotal evidence that this is happening in TYC institutions. Will Harrell, Independent Ombudsman for the Texas Youth Commission, Preliminary Site Visit Report for Crockett State School, 19 August 2007. Report noted a youth complaint that staff are often too quick to use pepper spray without giving the youth a chance to explain their behavior and modify it.

<sup>83</sup> Cohen, 83.

<sup>84</sup> Texas SOS, *Texas Register*, 7861. It is important to note that the TYC administration's recently proposed rewrite to the Texas Administrative Code § 97.23 will significantly change the use of force continuum in TYC institutions to the following

order: 1) physical presence, 2) verbal intervention/de-escalation techniques, 3) mechanical restraints, 4) OC spray, and 5) physical restraint. The proposed policy places pepper spray use prior to any hands-on control options in the use of force continuum, including specialized Handle With Care restraint techniques. This proposed policy will essentially require TYC staff to "spray first" before attempting any hands-on intervention with youth – or risk violation of policy.

<sup>85</sup> Michael F. Caldwell and Gregory J. Van Rybroek, "Reducing Violence in Serious Juvenile Offenders Using Intensive Treatment," *International Journal of Law and Psychiatry* 28 (2005): 633.

<sup>86</sup> Wisconsin's Mendota Juvenile Treatment Center is one example of such a program that has shown promising results. Christopher A. Cowles and Jason J. Washburn, "Psychological Consultation on Program Design of Intensive Management Units in Juvenile Correctional Facilities," *Professional Psychology: Research and Practice* 36, no. 1 (2005): 48; Caldwell and Van Rybroek, 633.

<sup>87</sup> Rosenbaum, see subheading "C. Adult Corrections Model."

<sup>88</sup> *Ibid.*

<sup>89</sup> *Ibid.*

<sup>90</sup> Cowles and Washburn, 49.

<sup>91</sup> Springer and colleagues, 49.

<sup>92</sup> *Ibid.*

<sup>93</sup> Johnson, see subheading "Introduction."

<sup>94</sup> Therapeutic Crisis Intervention (TCI) System is an internationally recognized program provided by the Residential Child Care Project of Cornell University, Ithaca, NY, which specifically addresses crisis prevention and de-escalation, behavior management, and staff and youth injury reduction. Arizona's Department of Juvenile Corrections has utilized TCI in its system reform efforts, undertaken as the result of a DOJ investigation. Additional information is available online <<http://rccp.cornell.edu/TCIpage1.htm>>.

<sup>95</sup> Scott Henson, "'Spray First' Makes a Comeback: TYC Proposes More Pepper Spray, Use of Mechanical Restraints," Grits for Breakfast Weblog, 1 November 2007, <<http://gritsforbreakfast.blogspot.com/2007/11/spray-firsttyc-proposes-more-pepper.html>> (6 November 2007). Henson

states, “Not one county juvenile detention center in the entire state uses pepper spray on youth, so why should TYC?”

<sup>96</sup> Texas Youth Commission, “Commitment Profile for New Commitments, Fiscal Years 2002–2006,” <<http://www.tyc.state.tx.us/research/profile.html>> (23 November 2007).

<sup>97</sup> Solomon Moore, “Troubles Mount Within Texas Youth Detention Agency,” *New York Times*, 16 October 2007, <<http://www.nytimes.com/2007/10/16/us/16juvenile.html?ex=1193198400&en=47b07c4f4a224716&ei=5070&emc=eta1>> (16 October 2007). “State officials say chronic job vacancy rates and critical employee turnover are at the root of many of the system’s problems. Employee terminations since September 2006 have far outpaced recruitment.”

<sup>98</sup> Scott Henson, “TYC Training Time Still Half That of Adult Prison Guards,” Grits for Breakfast Weblog, 2 November 2007, <<http://gritsforbreakfast.blogspot.com/2007/11/ty.html>> (6 November 2007).

## APPENDIX A

### Review of Research on Pepper Spray Effectiveness

#### Effectiveness Measures

Pepper spray studies commonly attempt to determine a rate of effectiveness for pepper spray use through various measures, including a noted ease in suspect apprehension, a decline in injuries to officers, and a decline in injuries to suspects or a reduction in excessive use of force complaints. Researchers examining pepper spray as a safe tool for restraint often note significant study limitations.<sup>1</sup> These include the lack of comparable data<sup>2</sup> and the opportunity for bias, since studies are often dependent on “self-report” surveys from officers in the field.<sup>3</sup> Researchers lacking empirical evidence of effectiveness must interpret officers’ descriptions of human responses to pepper spray, possibly allowing for skewed data – limitations which may be exacerbated in studies utilizing dichotomous measures, i.e. “effective” or “ineffective.”<sup>4</sup> In a study of the implementation of pepper spray into Maryland’s Baltimore County Police Department, researchers noted, “There may well be wide differences in the use of terms depending on the individual officer’s understanding and expectation of what OC is [supposed] to do to a suspect.”<sup>5</sup> Given the many flaws and limitations pervasive in these studies, it would be difficult to conclude with any certainty whether pepper spray is effective in achieving control and increasing safety.

#### Inconsistent Findings

Law enforcement agencies often argue the positive effects of pepper spray as a non-lethal use of force to reduce physical harm to officers and assailants while enabling them to successfully apprehend a suspect. In a two-year study by the University of North Carolina Injury Prevention Research Center, funded by the National Institute of Justice (NIJ), researchers were able to confirm with statistical significance that pepper spray reduced officer injuries in only one of the three jurisdictions studied. In the two remaining jurisdictions, researchers could not confirm pepper spray as an associated or contributing factor in reducing officer injury. The analysis of suspect injury data from two of the North Carolina jurisdictions resulted in similarly divergent results. Although one jurisdiction noted a

statistically significant decline in injuries, the second jurisdiction indicated that the introduction of pepper spray had no effect in reducing an already downward trend in suspect injuries.<sup>6</sup>

Other study findings vary drastically in how “effective” pepper spray is, ranging from zero percent in some studies<sup>7</sup> to frequently reported claims of 90-100 percent in others<sup>8</sup> depending on the population in the study and researchers’ methodology. A study by Morabito and Doerner analyzed data from the Tallahassee Police Department and reported an overall 73 percent effectiveness rate.<sup>9</sup> In a newly expanded study of Baltimore County Police Department data by Kaminski, Edwards, and Johnson, the researchers analyzed officer-reported suspect behavior following pepper spray and found it was effective in only 70.7 percent of the cases,<sup>10</sup> substantially lower than the suggested 90 percent effectiveness previously reported in a study of Baltimore data by the International Association of Chiefs of Police (IACP).<sup>11</sup>

Particularly in cases where individuals exhibit symptoms of drug use or mental illness, pepper spray is repeatedly cited as ineffective, and mounting evidence indicates that these individuals may be highly resistant to its effects.<sup>12</sup> Researchers for the IACP warned that “individuals who are heavily intoxicated, drugged and/or mentally ill are in such a state that OC will have little or no effect and may make the individual *more difficult* to control.”<sup>13</sup> Thus, use of pepper spray against those exhibiting signs of mental illness or under the influence of drugs or alcohol may instead increase risk of harm to officers and suspects.

In one study examining suspect deaths while in police custody, the researcher noted an effectiveness rate of only 20 percent when the suspects were violent or on drugs.<sup>14</sup> Similarly, in an analysis of 26 reported deaths following pepper spray exposure, the American Civil Liberties Union (ACLU) of Southern California reported the use of pepper spray as completely ineffective, finding that in some cases the subject became more combative

with officers.<sup>15</sup> Researchers note a wide variation in human responses which introduces additional ambiguity in pepper spray use, and they admonish that pepper spray “is not a panacea.”<sup>16</sup>

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### Notes

<sup>1</sup> U.S. Department of Justice, National Institute of Justice, *The Effectiveness and Safety of Pepper Spray*, April 2003, 7, 12, <<http://www.ojp.usdoj.gov/nij>> (9 September 2007). Report presented information from several studies. One study examining suspect and officer injuries noted limitations including variations in reporting and availability of data among agencies and inconsistency in injury data collection. Another study examining the effects of pepper spray and positional restraint noted the impossibility to replicate field conditions in laboratory and further limitations, including the testing of only healthy cadet volunteers, limited exposure to pepper spray through the use of goggles, and subject restraint on examination tables rather than hard surfaces.

<sup>2</sup> International Association of Chiefs of Police (IACP), *Pepper Spray Evaluation Project: Results of the Introduction of Oleoresin Capsicum (OC) into the Baltimore County, MD, Police Department*, report prepared for the U.S. Department of Justice, National Institute of Justice, 22 June 1995, vii-viii, <<http://www.theiacp.org/research/peppersprayeval.pdf>> (24 September 2007).

<sup>3</sup> Raymond Downs, “Less Lethal Weapons: A Technologist’s Perspective,” *Policing* 30, no. 3 (2007): 371.

<sup>4</sup> Robert J. Kaminski, Steven M. Edwards, and James W. Johnson, “Assessing the Incapacitative Effects of Pepper Spray during Resistive Encounters with Police,” *Policing* 22, no. 1 (1999): 10, 24.

<sup>5</sup> IACP, ix.

<sup>6</sup> J. Michael Bowling and Monica Gaines, “Evaluation of Oleoresin Capsicum (O.C.) Use by Law Enforcement Agencies: Impact on Injuries to Officers and Suspects, Summary of Research Findings,” unpublished report prepared for the U.S. Department of Justice, October 2000, <<http://www.ncjrs.gov>> (6 September 2007). The study of officer injuries included three jurisdictions: Charlotte-Mecklenburg Police Department, Winston Salem Police Department, and the North Carolina State Highway Patrol. A decline in officer

injuries attributed to the implementation of pepper spray could only be confirmed in data from the State Highway Patrol. The study of suspect injuries included two jurisdictions: Charlotte-Mecklenburg Police Department and Winston Salem Police Department. Only data from Charlotte-Mecklenburg could confirm reduced suspect injury attributable to pepper spray use. Winston Salem experienced a decline in suspect injuries prior to the implementation of pepper spray, which continued uninterrupted post-implementation.

<sup>7</sup> American Civil Liberties Union (ACLU) of Southern California, “Pepper Spray Update: More Fatalities, More Questions,” (Los Angeles, CA, June 1995): 3, <[http://www.aclu-sc.org/attach/p/Pepper\\_Spray\\_New\\_Questions.pdf](http://www.aclu-sc.org/attach/p/Pepper_Spray_New_Questions.pdf)> (18 September 2007).

<sup>8</sup> Kaminski, Edwards, and Johnson, 15.

<sup>9</sup> Eugene V. Morabito and William G. Doerner, “Police Use of Less-than-Lethal Force: Oleoresin Capsicum (OC) Spray,” *Policing* 20, no. 4 (1997): 690.

<sup>10</sup> Kaminski, Edwards, and Johnson, 22. Report notes potential problems with officer evaluation and description of suspect behavior and recommends future studies consider improved measures to define indicators of effectiveness.

<sup>11</sup> IACP, ix.

<sup>12</sup> U.S. Department of Justice (DOJ), National Institute of Justice, *Evaluation of Pepper Spray*, by Steven M. Edwards, John Granfield, and Jamie Onnen, February 1997, 6, <<http://www.ncjrs.gov>> (10 September 2007).

<sup>13</sup> IACP, x.

<sup>14</sup> Charles S. Petty, “Deaths in Police Confrontations When Oleoresin Capsicum is Used,” unpublished report prepared for the U.S. Department of Justice, February 2004, 9, <<http://www.ncjrs.gov>> (9 September 2007).

<sup>15</sup> ACLU of Southern California, 3.

<sup>16</sup> Kaminski, Edwards, and Johnson, 22.



## APPENDIX B

## Key Expert Recommendations and Legislative Mandates

**Expert Recommendations from the Blue Ribbon Task Force Report: "Transforming Juvenile Justice in Texas: A Framework for Action"****Funding and Governance**

Recommendation #2.1: Allocate adequate funding for facilities, rehabilitation and treatment programs, appropriate staffing ratios, education, and the training of employees.

**Security**

Recommendation #2.25: Maintain a safe place for youth that embraces a non-violent approach. The classification system needs to address the security and safety of the juveniles while confined in TYC. To this aim, decisions for housing juveniles need to include, among other things, the age and vulnerability of the juvenile. *The Task Force recommends monitoring of assaults, identifying trouble areas, and taking action to separate aggressive youth from targeted youth with the intention of preventing continued violence in TYC facilities.*

Recommendation #2.26: Develop goals to carefully ration, supervise, and document the use of seclusion, restraints, chemical control agents, and the use of force generally. There is convincing evidence that lowering the size of living units and enriching staff resources at facilities like TYC can reduce violence within the facilities and promote better rehabilitative outcomes. Lowering the size of living units to no more than 50 wards has been shown to substantially improve correctional management and advance treatment goals.

[ . . . ] At root, the new TYC executive leadership at Central Office in Austin should foster a "new organizational culture" that does not accept ward violence or staff use of force. Organizational culture change is aided by a new clarity of policy and procedure, but this must be strongly reinforced by ongoing training, as well as daily reaffirmation of the values of the new culture.

[ . . . ] This Task Force unequivocally expresses its

concern about TYC's new policy allowing the use of chemical control agents such as pepper spray. [ . . . ] We understand that the new policy regarding pepper spray was implemented in an effort to decrease injuries to staff and juveniles; however, the ease with which pepper spray can be employed is exceptionally troubling. This is especially true in an environment that has not yet seen a shift in culture away from punishment and towards a treatment approach. While there could potentially be scenarios in which the use of pepper spray is the best alternative in dealing with a crisis situation, it is all too easy to employ this technique in dealing with recalcitrant youth who refuse to obey an order or in an effort to extract a juvenile from his or her cell. In neither situation would the use of pepper spray be appropriate. Although public debates so far have framed this as a choice between the use of pepper spray and the use of restraints or physical force, we think that such a debate creates a false choice. The challenge is for TYC to find ways to decrease all uses of force through an emphasis on other methods. Specifically, greater priority should be given and resources allocated toward skills-based training using standardized approaches for workers on how to verbally de-escalate crisis situations. This will require a shift in culture that is congruent with treatment over punishment.

**Management**

Recommendation #2.28: Ensure that the staff are an appropriately educated workforce who are youth-focused and strength-based in their approach. Properly equip all TYC employees with sufficient education, training and credentials.

Recommendation #2.30: Establish and maintain an adequate youth-to-staff ratio using national best practice standards, aiming for a 1:10 ratio.

**Legislative Mandates from Senate Bill 103**

§ 33. Subchapter B, Chapter 61, Sections 61.023 Human Resources Code: This section requires TYC

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to begin the process for gaining accreditation by the American Correctional Association (ACA) for correctional facilities operated directly or through contract with TYC. *National accreditation with the ACA would improve facility standards and may thus help address many of the issues at the root of TYC facility violence.*

§ 34. Section 61.0315, Human Resources Code:

This section requires TYC to establish and implement necessary rehabilitative programming and services as recommended by the court committing the child to TYC custody. *The establishment of rehabilitative treatment transitions the focus of TYC from one that emphasizes punitive, adult-model corrections to one that prioritizes the moral and legal obligations for rehabilitating youth in a safe, structured environment.*

§ 35. Subchapter C, Chapter 61, Sections 61.0331, 61.0332, and 61.0345, Human Resources Code:

These sections require TYC to conduct internal audits of all TYC correctional facilities, including those managed directly by TYC employees and those under contract, and report their findings to the joint selection committee. Furthermore, TYC shall adopt a mission statement. *These steps should facilitate increased accountability and transparency, thus lead to opportunities to address issues of pervasive violence in TYC facilities.*

§ 40. Subchapter C, Chapter 61, Sections 61.0356, 61.0357, and 61.0386, Human Resources Code:

Section 61.0356 specifies an increase in training hours for juvenile corrections officers and requires instruction in the recognition of signs of abuse, assault, neglect, and risk of suicide; the identification of mental health issues; an understanding of the neurological, physical, and psychological development of youth and youth-specific social and cultural differences. The training specified by SB 103 also requires staff development in the use of interpersonal relationship skills, behavior management, conflict resolution techniques, and dispute mediation. Finally, TYC must provide juvenile correction officers with training in the applicable use of force, appropriate restraint techniques, emergency first-aid, and the rights and responsibilities of children in TYC custody. *The increase in training and emphasis on*

*youth development, behavior management, and safety facilitates increased professionalism and confidence among staff, so that they are better equipped to appropriately recognize and respond to situations which might otherwise escalate into violence.*





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