Maine's Caregivers, Social Assistance and Disability Rehabilitation Workers Injured by Violence and Aggression in the Workplace in 2011

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INTRODUCTION

The objective of the research conducted for this report was to determine the number of caregiver, social assistance and disability rehabilitation workers (providers) injured in 2011 by workplace violence/aggression. These providers were employed in mental health care, residential care, health care, social assistance and disability rehabilitation settings.

Four types of violence initiators were defined in the Maine Department of Labor's and Family Crisis Services' 2004 publication, *Impact of Domestic Violence Offenders on Occupational Safety & Health: A Pilot Study*. These four types of initiators include: Type 1 – Criminal Intent; Type 2 – Customer/Client; Type 3 – Worker-on-Worker; and, Type 4 – Personal Relationship. This report focuses on violence initiated by the Type 2 category of Customer/Client which is defined below:

> Customer/Client: The perpetrator has a legitimate relationship with the business and becomes violent while being served by the business. This category includes customers, clients, patients, students, inmates, and any other group for which the business provides services. [1]

The Type 2 category of Customer/Client, for the purposes of this paper, will be referred to as recipients.

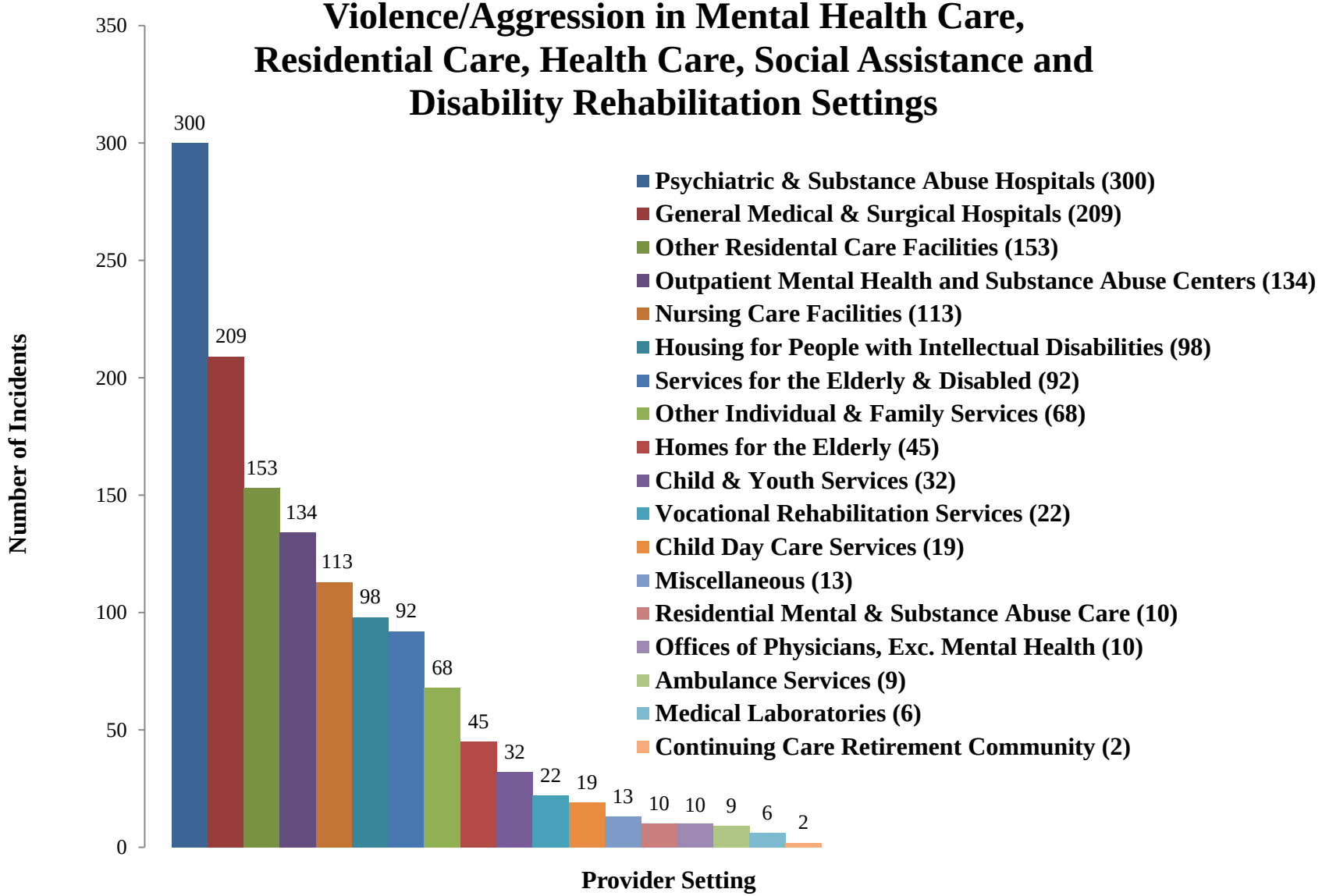
Provided in this report is statistical information regarding provider injuries and potential exposures to bacterial infections resulting from violent/aggressive actions of recipients of care/services. In 2011, 9,965 Employer's First Reports of Occupational Injury or Disease were submitted by employers to the Maine Workers' Compensation Board. [2] These reports were filed by mental health care, residential care, health care, social assistance and disability rehabilitation service entities. The First Reports of Injury included in the research were submitted by organizations with a North American Industry Classification System's (NAICS) Sector 62 classification, Health Care and Social Assistance.[3] Of those 9,965 cases, 1,335 (13.4%) were identified as resulting from workplace violence/aggression. Identification of those cases was determined by assessing submitted written descriptions of the events surrounding the workplace incidents.

INDUSTRY/CARE SETTINGS OF IDENTIFIED CASES

Those workplace settings identified as having violent/aggressive incidents are provided below in Figure 1 and appear by high to low numbers of incidence.

Mental health care settings and Other Residential Care Facilities accounted for 695 cases or 52% of all violent/aggressive incidents in 2011. Nursing Care Facilities and other care settings for the elderly and people with disabilities accounted for 252 cases or 18.9% of incidents. General Medical and Surgical Hospitals and other general medical/surgical-related services accounted for 224 cases or 16.8% of incidents.

Figure 1: Maine's 2011 Provider Injuries Due to Workplace Violence/Aggression in Mental Health Care, Residential Care, Health Care, Social Assistance and Disability Rehabilitation Settings



PROVIDER OCCUPATIONS

Providers injured as a result of workplace violence/aggression were employed in a broad range of occupations. These occupations were dominated by nurses at all levels and nursing support employees, education technicians, direct support employees and psychiatric technicians.

Nurses at all levels were combined as one occupational category for the purposes of this report. Cases reported for nurses occurred in most of the provider settings within the Health Care and Social Assistance industry and involved 159 incidents, or 11.9% of violence/aggression cases. Cases reported for certified nursing assistants involved 125 incidents, or 9.6% of violence/aggression cases. The combined number of cases reported for nurses and certified nursing assistants was 284, or 21.27% of violence/aggression cases.

The second largest number of violence/aggression cases reported was for education technicians. The 249 education technician cases, 18.6% of cases submitted, were predominantly from outpatient mental health centers, psychiatric and substance abuse hospitals and other residential care facilities.

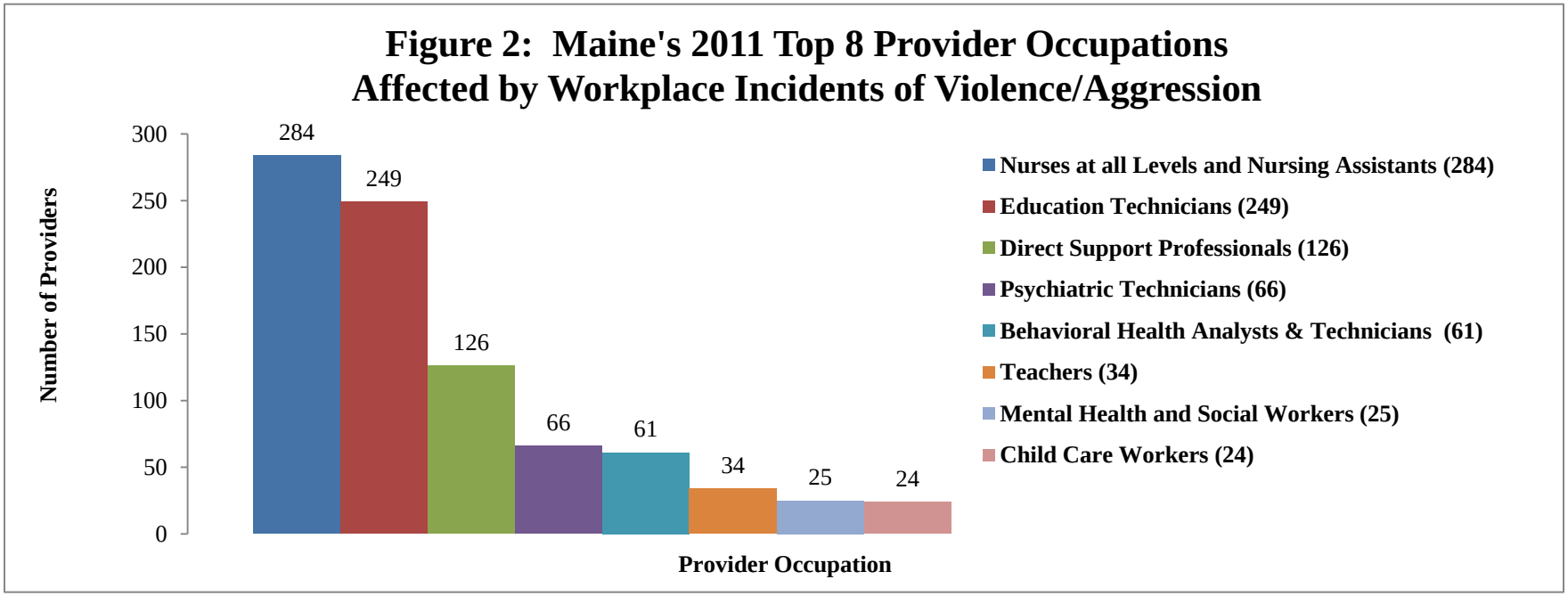
Education technicians must be authorized to work by the Maine Department of Education and meet specific educational requirements for the three levels within the job family. They work within organizations in the role of providing supervision of students and support to teachers and work with individuals having developmental and other disabilities who require special teaching methods.

Teachers, working predominantly in outpatient mental health centers, were affected in 34 incidents.

Direct support professionals were affected in 126 or 9.4% of violence/aggression cases. This occupation involves assisting individuals in the areas of personal care and hygiene, teaching life skills, encouraging independence, and providing support to individuals in community settings. They work in a variety of settings, including housing for people with intellectual disabilities, in-home and community services for the elderly and people with disabilities and other individual and family services, nursing care facilities and homes for the elderly. The State of Maine, through the College of Direct Support, provides four certification programs for direct support professionals. (See Maine's Department of Health and Human Services, Developmental Services Information regarding Adults with Cognitive and Physical Disabilities web page.[4]

Other occupations with significant numbers of 2011 Workers' Compensation cases resulting from violence/aggression included 88 psychiatric technicians, 61 behavioral health technicians and analysts, 25 mental health and social workers and 24 child care and senior child care workers.

Also included in the total count of 1,335 violence/aggression cases were 38 protective service employees, predominantly employed as security officers in hospital settings.

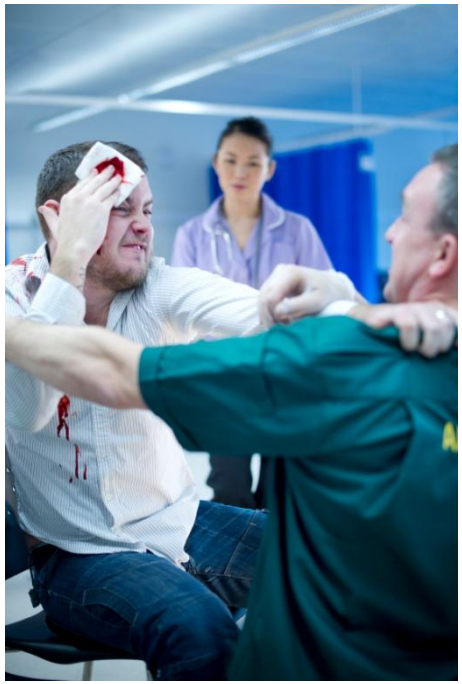


CATEGORIES OF RECIPIENTS

Acts of violence/aggression towards providers were committed by a broad range of care/service recipients, including mental health patients, nursing home and residential care clients, general hospital patients, adults and children with disabilities and individuals being treated for substance abuse. Listed below are the Workers' Compensation categories for those recipients who were initiators of violence/aggression towards providers.

- Clients
- Consumers
- Residential Clients
- Customers
- Patients
- Students

The above categories fall under the Type 2, Customer/Client category, defined in the Introduction of this report.



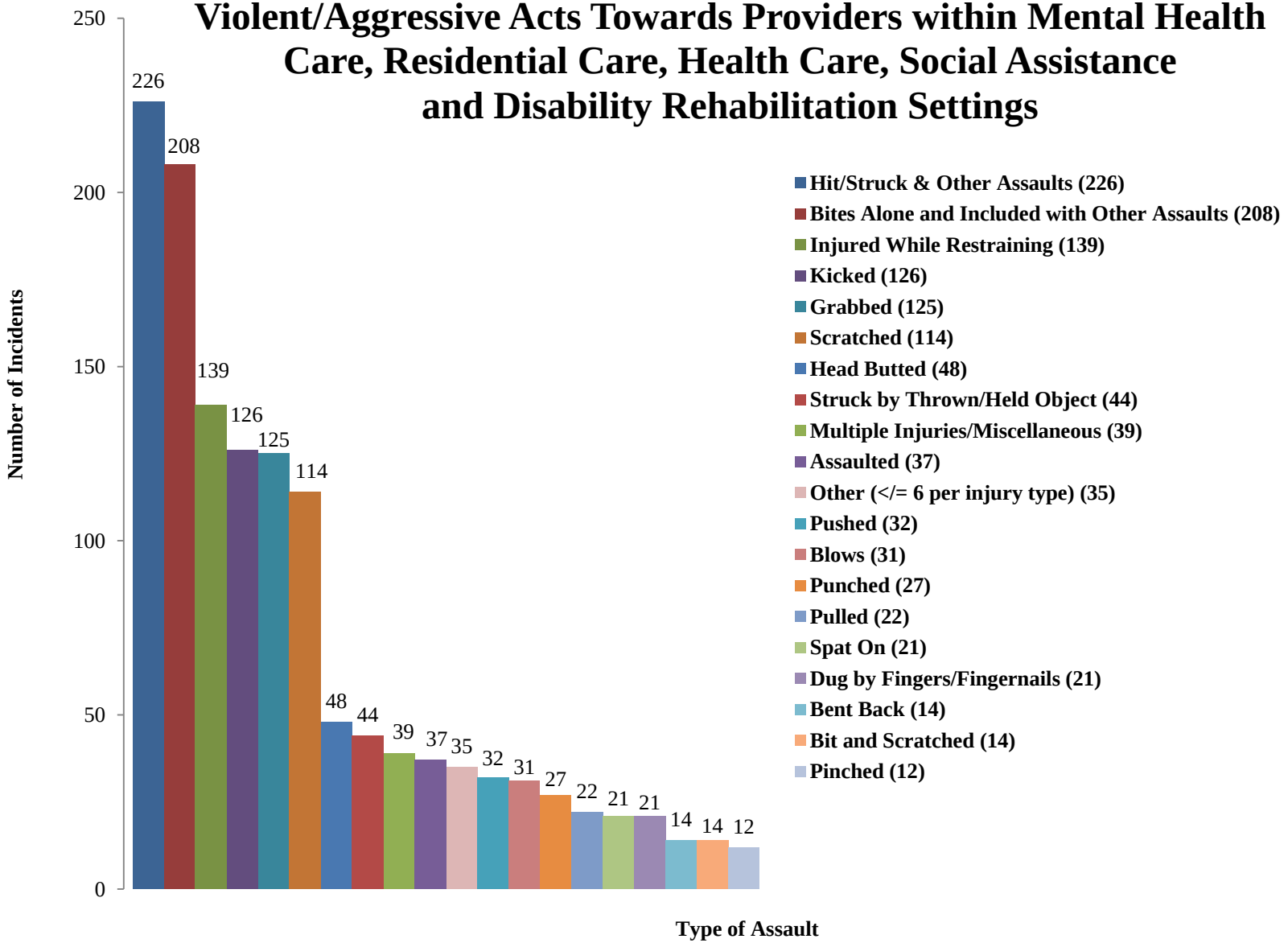
TYPES OF ASSAULTS

The most prevalent type of assault, being hit, is included in the category of **Hit/Struck & Other Assaults.** Assaults consisting of being hit include **Punches** and **Blows.** The combined total for these hitting categories is 284 or 21.3% of violent/aggressive incidents. Additional hitting assaults may also have been assigned to other injury categories, such as **Assaults, Injured While Restraining, Multiple Injuries/Miscellaneous** and **Other,** but could not be identified by the written event descriptions.

The second most prevalent type of assaults, **Bites, Bites with Other Assaults and Bites with Scratches,** placed providers at risk of potential exposures to infectious agents. These assaults resulted in 222, or 16.6%, of the violent/aggressive incidents. In addition to the risk of potential exposures to infectious agents, providers also experienced injuries from the assaults that included open wounds, bruises and abrasions and crushing injuries. The majority of bites, 165 or 74.3%, were made to upper limb areas, including arms and forearms, hands, wrists and fingers. Additional information regarding human bites and the Federal Bureau of Prison's 2009 Clinical Guidelines regarding viral and bacterial exposures are provided later in this report.

Following the categories of **Hits** and **Bites,** identifiable assault categories included **Kicks,** with 126 or 9.45% of violent/aggressive incidents, and being **Grabbed,** with 125 or 9.4% of violent/aggressive incidents.

Figure 3: Maine's 2011 Types of Workplace Violent/Aggressive Acts Towards Providers within Mental Health Care, Residential Care, Health Care, Social Assistance and Disability Rehabilitation Settings

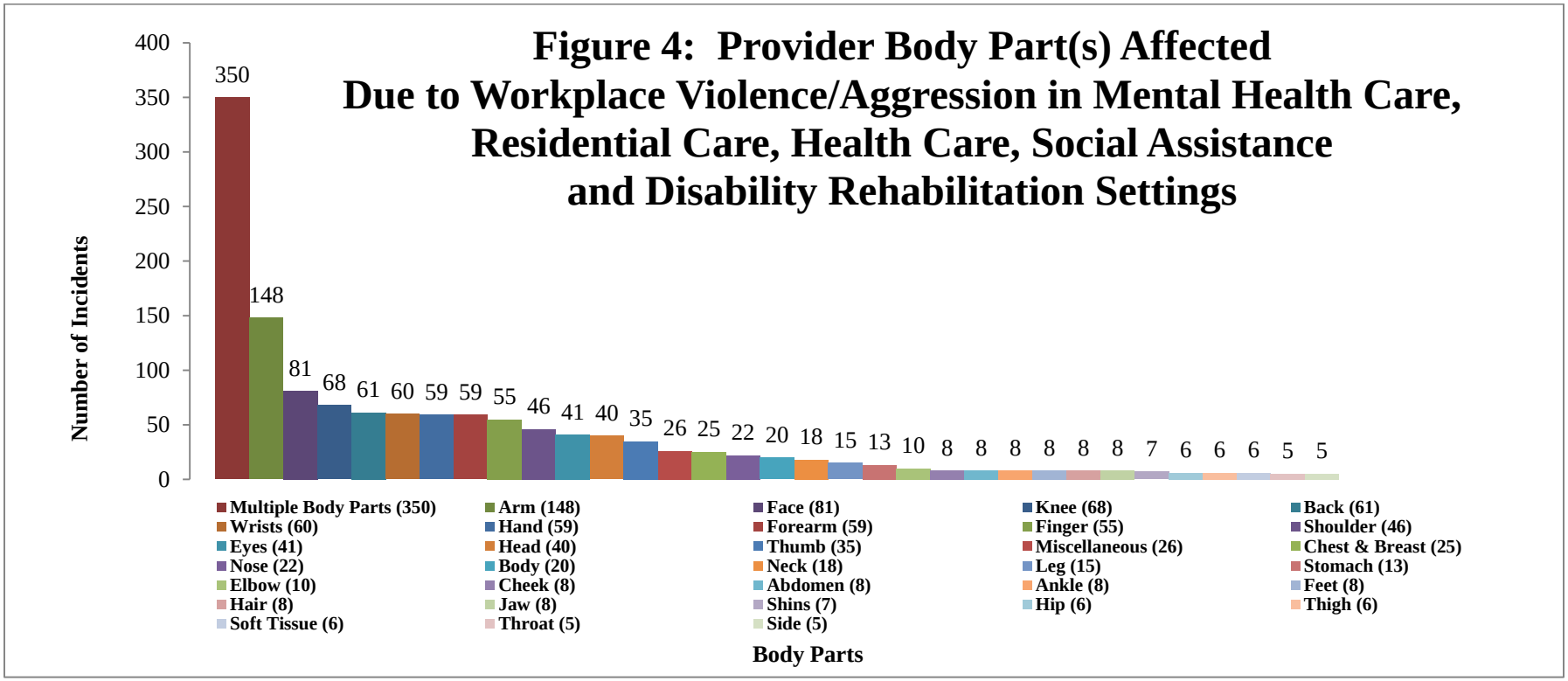


TYPES OF INJURIES INCURRED BY MAINE'S PROVIDERS IN 2011

In 2011, violent/aggressive assaults on providers resulted in a number of different types of injuries. Those injuries included bruises and contusions, concussions, cuts and lacerations, fractures, headaches, multiple traumatic injuries, pain, puncture wounds, sprains/ strains and tears to tendons and ligaments and scratches and abrasions. In roughly 575 of the incidents, injuries were not sufficiently identified in the cases to determine their actual nature. Those cases were included in the category of Traumatic Injuries Unspecified.

BODY PARTS AFFECTED BY INJURIES

In Figure 4, body part(s) affected by injuries from workplace violence/aggression are provided from high to low incidence numbers. The highest number of incidents, 350, affected multiple body parts. The second highest number of incidents, 148, affected arms. Following those categories are injuries to the face with 81 incidents, injuries to the knees with 68 incidents, and injuries to the back, wrists, hands, forearms and fingers ranging from a high of 61 incidents to a low of 55 incidents.



VIOLENCE RISK FACTORS AND STRATEGIES FOR PREVENTION OF VIOLENT INCIDENTS

In its 2002 publication, *Violence: Occupational Hazards in Hospitals*, the U.S. Centers for Disease Control, through its National Institute for Occupational Safety and Health (NIOSH), cites the effects of violence as being: minor physical injuries; serious physical injuries; temporary and permanent physical disability; psychological trauma; and death. It stated, "*Violence may also have negative organizational outcomes such as low worker morale, increased job stress, increased worker turnover, reduced trust of management and coworkers, and a hostile working environment.*" [5]

Referring to studies utilized for its 2002 publication, NIOSH cites violent incidents often taking place during times of high activity and interaction with patients, including meal times and during visiting hours and patient transportation. It also refers to times when service is denied, when a patient is involuntarily admitted or when a health care worker attempts to set limits on eating, drinking, or tobacco or alcohol use.

It cites the three most frequent areas in the hospital where violence occurs as psychiatric wards, emergency rooms and waiting rooms

Common risk factors for violence cited by NIOSH are:

- *Working directly with volatile people, especially if they are under the influence of drugs or alcohol or have a history of violence or certain psychotic diagnoses*
- *Working when understaffed, especially during meal times and visiting hours*
- *Transporting patients*
- *Long waits for service*
- *Overcrowded, uncomfortable waiting rooms*
- *Working alone*
- *Poor environmental design*
- *Inadequate safety*
- *Lack of staff training and policies for preventing and managing crises with potentially volatile patients*
- *Drug and alcohol abuse*
- *Access to firearms*
- *Unrestricted movement of the public*
- *Poorly lit corridors, rooms, parking lots and other areas*[5]

In the same 2002 publication, NIOSH provides a set of prevention strategies for employers which include:

- Addressing such **environmental designs** as developing emergency signaling and monitoring systems; installing metal detectors and cameras and providing good lighting in hallways; designing spaces to increase employee safety, for example, designing restrooms with emergency exits, enclosing nurses stations, installing bullet-resistant and shatterproof glass enclosures in reception areas and arranging furniture and other objects to minimize the use of weapons.

- Establishing such **administrative controls** as structuring staffing so that workers are not working alone and waiting time for patients is minimized, restricting patient movement by installing card-controlled access and developing a process for alerting security when danger is threatened.

- Providing employees with training in **behavior modification** with the objectives of managing assaults, resolving conflicts and maintaining hazard awareness.

- **Dealing with the consequences of violence** by promoting open communication and developing written procedures for responding to violence, providing safety tips for hospital workers and promoting behaviors that help diffuse anger.

- Providing **safety tips for hospital workers**, to encourage watchfulness for verbally expressed anger and frustration, threatening body language and gestures or signs of drug or alcohol use and the presence of weapons.

- Establishing such **behaviors that help diffuse anger** as presenting a calm and caring attitude; avoiding any behavior that may be interpreted as aggressive and refraining from making reciprocal threats or giving orders.

- Encouraging **alertness** for potential violence in situations with patients or visitors throughout encounters, avoiding being isolated with a potentially violent person and always keeping an open path for exiting (do not let the potentially violent person block the pathway to the door).

Another comprehensive source for recommendations to reduce violence/aggression against providers is the U.S. Occupational Safety & Health Administration's 2004 publication, *Guidelines for Preventing Workplace Violence for Health Care & Social Service Workers.*[6]

ADDITIONAL INFORMATION REGARDING HUMAN BITE INJURIES

As human bite injuries represent a significant level of risk to providers in the form of potential exposures to infectious agents, data pertaining to this type of assault is being provided in Tables 1 and 2. Table 1 lists the number of 2011 bite incidents perpetrated by recipients against providers by body part(s) affected.

TABLE 1: BODY PART(S) AFFECTED	NUMBER OF INCIDENTS
Arms and Forearms	93
Miscellaneous	57
Hands	25
Fingers, Including Thumbs	23
Arms, Multiple Injuries Including Bites	14
Wrists	10
TOTAL:	**222**

Table 2 provides data pertaining to the types of occupations providers performed. The majority of providers incurring bites were in occupations within outpatient mental health centers, psychiatric and substance abuse hospitals and other residential care facilities.

TABLE 2: OCCUPATIONS OF PROVIDERS INCURRING BITES	NUMBER OF EMPLOYEES
Education Technicians	45
Behavioral Technicians	28
Miscellaneous Occupations	28
Direct Support Professionals	25
Nurses (All Levels)	22
Teachers, Teachers Assistants	16
Psychiatric Technicians	14
Supervisors	11
Child Care Workers	10
Certified Nursing Assistants	9
Behavioral Health Professionals	8
Mental Health Workers	2
Certified Residential Medication Aides	2
Therapists	2
TOTAL:	**222**

ADDRESSING BITE EXPOSURES

Referencing *The Federal Bureau of Prisons' 2009 Clinical Practice Guidelines regarding the Medical Management of Exposures on HIV, HBC, HCV, Human Bites and Sexual Assaults*, it states the following:

> *Human bites have rarely resulted in transmission of HIV (human immunodeficiency virus) or HBV (hepatitis B virus) infection. There have been no reports of transmission of HIV or HBV following a human bite that occurred as part of an occupational exposure. Human bites, however, are associated with a significant risk for serious bacterial infection, including Eikenella corrodens, a gram-negative organism which is resistant to cephalosporins. Common organisms associated with human bites are Streptococcus anginosus and Staphylococcus aureus, among many others.*[7]

However, its guidelines recommend evaluating the potential exposure to HIV, HBV and HCV with respect to human bites and states:

> *Clinical evaluation must include the possibility that the person bitten and the person who inflicted the bite both may have been exposed to a bloodborne pathogen.*[7]

The Bureau's guidelines for evaluating the exposure include identifying whether blood exposure is suspected by examining both the biter and the bitten person. It also advises:

> *Individuals with human bite wounds have a high risk of serious bacterial infections; therefore, close monitoring of the wound is necessary. Those with the following types of human bite wounds should be considered for prophylactic antibiotic treatment: bites to the hands, feet, face, or skin overlying cartilaginous structures; or bites that penetrated deeper than the epidermal lay. As soon as possible (prior to signs of infection), these persons should be treated with amoxicillin-clavulanate 875/125 mg by mouth, twice daily for 5 days. For persons allergic to penicillin, treat with clindamycin together with either ciprofloxacin or trimethoprim-sulfamethoxazole (TMP-SMX). Employees should be referred to their physician for antibiotic prophylaxis. Individuals who develop cellulitis or other serious skin or soft tissue infection following a human bite should be referred urgently for IV antibiotics.*[7]

In addition, it specifies that,

> *All individuals who sustain a human bite should be assessed for tetanus prophylaxis.*[7]

The Centers for Disease Control and Prevention, on its July 2012 website section on HIV/AIDS, provides the following information in its Questions and Answers regarding human bites:

> *It is very rare, but in specific circumstances HIV can be transmitted by a human bite. In 1997, CDC published findings from a state health department investigation of an incident that suggested blood-to-blood transmission of HIV by a human bite. There have been other rare reports in the medical literature in which HIV appeared to have been transmitted by a human bite. Biting is not a common way of transmitting HIV, in fact, there are numerous reports of bites that did not result in HIV infection. Severe trauma with extensive tissue damage and the presence of blood were reported in each of the instances where transmission was documented or suspected. Bites that do not involve broken skin have no risk for HIV transmission, as intact skin acts as a barrier to HIV transmission.*[8]

SUMMARY:

This report has focused on factors surrounding Maine's 2011 Workers' Compensation cases involving violence/aggression against providers of mental health care, residential care, health care, social assistance and disability rehabilitation services. These incidents were initiated by recipients of care and social assistance offered in these settings against providers employed in these settings.

Maine's 2011 average employment figure for employees in the Health Care and Social Assistance industry was 99,451.[9] With 9,965 Workers' Compensation cases submitted in 2011 for that industry, the 2011 submission rate was 10.02%.

Violence/aggression cases in the Health Care and Social Assistance industry were determined to be 1,335 in 2011. These cases accounted for 13.4% of the industry's 9,965 Workers' Compensation cases submitted and 1.34% of the industry's 2011 average employee figure of 99,451.

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