



## **Trauma Prevalence/Characteristics in Erie County and the State of PA**

Obtaining prevalence rates and statistics of trauma and trauma-related incidents is essential for both researchers and practitioners, in understanding the needs of the community, guide research, and improve service delivery. However, data available to limited and narrow, as few studies document prevalence rates, the range of traumatic events measured is low, and the population sampled are not representative of various demographic groups, such as age.

The Substance Abuse and Mental Health Service Administration (SAMHSA) describes trauma as resulting from "an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or life threatening and that has lasting adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well-being." Examples of trauma events listed by SAMHSA include physical and sexual abuse/assault, emotional abuse/psychological maltreatment, neglect, serious accident/illness/medical procedure, victim/witness to domestic/interpersonal/community violence, school violence, historical trauma, military trauma, war/terrorism, natural/manmade disasters, forced displacement, and traumatic grief/separation. Research has documented a strong negative relationship between traumatic events and behavioral and mental health outcomes. This provides impetus for mental health organizations to determine the prevalence of trauma in local populations to better understand and meet the needs of the community.

Below is a brief summary of the trauma prevalence in Erie County and the state of Pennsylvania that can provide the Erie Coalition for a Trauma-Informed Community (ECTIC) with available information regarding trauma characteristics in local populations. This data will highlight existing gaps in the literature, which can first provide the opportunity for researchers to identify further directions for research, and ultimately inform practitioners in service delivery.

### **PA Department of Health; PA Vital Statistics 2010-2014; Bureau of Health Statistics and Research.**

Data reflecting the state of Pennsylvania indicated that in 2014:

- Unintentional injury (defined as harmful acts that occurred without any intention of causing damage to oneself or others) was the leading cause of death among children and adults ages 1 through 49. There were 6,541 unintentional injury deaths reported in Pennsylvania in 2014, accounting for 72 percent of all injury deaths. Overall, unintentional injury death rates increased by 14.8 percent from 39.9 deaths per 100,000 population in 2010 to 45.8 deaths per 100,000 population in 2014. The most common unintentional injuries include motor vehicle accidents, falls, fires and burns, and drowning.
- A substantial number of deaths – especially among males – were intentional (comprising suicide and homicide). During 2010 to 2014, intentional injuries ranked second as the leading cause of death among Pennsylvanians under 20 years of age. Homicide by firearms was the leading cause of death among blacks, especially black males, during the five-year period, while suicide was the fifth leading cause of death among whites, both males and

females. Firearms were the most common mechanism of suicide and homicide, especially among males, during 2010 to 2014.

- In 2014, Pennsylvania hospitals reported 129,368 discharges of residents with injury-related admissions, corresponding to an average of 354 discharged persons per day.
- Almost half of all injury hospitalizations were to the elderly, age 70 and older, highlighting the prevalence of injuries, especially falls, among this group.
- Total charges for hospitalized injury discharges in Pennsylvania in 2014 exceeded \$8.30 billion. Over half of these charges (\$4.49 billion) were billed to Medicare.
- Every 4 minutes, a Pennsylvania resident entered hospital care due to a preventable injury in 2014. The leading causes of hospitalized injury in 2014 were falls, poisonings and motor vehicle accidents. Over 89 percent of hospitalized injuries were reported as unintentional. One group with very high injury hospitalization rates were persons aged 85 and older. Overall, injury hospitalization rates decreased by 12 percent from 975.1 hospitalizations per 100,000 population in 2010 to 857.0 hospitalizations per 100,000 population in 2014.
- This report describes Pennsylvania's injury burden from 2010 to 2014, using vital statistics from Pennsylvania Vital Records and Hospital Discharge Data (HDD) compiled by the Pennsylvania Health Care Cost Containment Council (PHC4).
- Readers and users of this report should use caution when interpreting many of the findings in it because of incomplete E-coding and the injury definition used. Relative rates, or the magnitude of differences within each table, are useful and valid for comparisons. However, absolute numbers may not always reflect the exact quantitative burden on Pennsylvania's population. Confidence intervals and significance test results have been provided throughout to assist with data interpretation. For more background on how rates were calculated and compared, please see the Technical Notes of the "Injury Deaths and Hospitalizations in Pennsylvania" available at [health.pa.gov](http://health.pa.gov).

### **PA Department of Health; Injuries in PA; Violence and Injury Prevention Program (2014)**

Data reflecting the county of Erie indicated that in 2014:

- 286 people (10.18%) individuals were hospitalized due to self-inflicted injuries. 107 people (3.8%) were hospitalized due to being assaulted
- Other causes of hospitalization included fire (26 people; .93%), firearms (20; .71%), struck (99; 3.52%), suffocation (35; 1.25%), motor vehicle occupant (124; 4.41%), motorcycle (41; 1.46%), and pedestrian (13; .46%).
- Of the people whom were hospitalized, 97.51% of cases were non-fatal (2739 people), whereas 70 were fatal (2.49%).

### **PA Department of Health; Adverse Childhood Experience; 2010 Behavioral Risk Factor Surveillance System**

Data reflecting the state of Pennsylvania indicated that in 2014:

- 16% of participants lived with someone who was depressed, mentally ill, or suicidal
- 20% of participants lived with someone who had a drinking problem
- 10% of participants lived with someone who used illegal street drugs or abused prescription medicine
- 6% of participants lived with someone who served time or was sentenced to serve time

- 24% of participants' parents were separated or divorced
- 15% of participants witnessed domestic violence at least once
- 15% of participants' parents physically hurt them at least once
- 32% of participants' parents swore, insulted, or put them down at least once
- 9% of participants were touched sexually at least once by an adult or someone at least 5 years older
- 6% of participants were forced by an adult or someone at least 5 years older to touch them sexually
- 4% of participants were forced by an adult or someone at least 5 years older to have sex with them
- 15% of participants experienced physical abuse
- 29% of participants experienced physical and verbal abuse

### **Healthy People 2020 (All data between 2010-2014)**

- Between 2010-2014, the rate of teen pregnancy (for females ages 15-17) in Erie county was 17.9 per 1000 females; in PA it was 17.2 per 1000 females.
- 3 people per 1000 people above age 13 have AIDS in Erie; 7.3 across all counties in PA on average
- Erie homicide rate is 4.1 per 100,000 people; PA homicide rate is 5.5 per 100,000
- Firearm related death rate is 9.7 per 100,000 people in Erie; 10.7 per 100,000 in PA
- Maltreatment of kids under 18, in Erie it is 16.8 per 1000 children (1.6); 10.8 (1.08) in PA
- Infant mortality rate in Erie is 6.5 per 1000 (under age of 1); in PA it is 6.7 per 1000
- Child death rate for children ages 1-4
  - Erie 36.3 per 100k children
  - PA 22.2 per 100k children
- Child death rate for children 5-9
  - Erie 11.8 per 100k children
  - PA 10.5 per 100k children
- Child death rate for children 10-14
  - Erie statistically insignificant
  - PA 11.8 per 100k
- Child death rate for children 15-19
  - Erie 39.8 per 100k children
  - PA 46.7 per 100k children
- Young adult 20-24
  - Erie 83 per 100k
  - PA 97.4 per 100k
- Suicide rate
  - Erie 14.3 per 100k
  - PA 12.6 per 100k

## **Erie County Profile Report: PA Youth Survey (2015)**

Data reflecting the county of Erie indicated that in 2014:

### *Substance Use*

- 9.8% of students used marijuana in the past 30 days (9.4% at state level)
- 18.9% of students used marijuana in lifetime (17.5% at state level)
- 1.4% of students used inhalants in the past 30 days (1.3% at state level)
- 5.2% of students used inhalants in lifetime (4.5% at state level)
- 1.4% of students used over-the-counter drugs to get high in the past 30 days (1.4% at state level)
- 3.7% of students used over-the-counter drugs to get high in lifetime (4.0% at state level)
- 0.4% of students used cocaine in the past 30 days (0.3% at state level)
- 0.2% of students used crack in the past 30 days (0.1% at state level)
- 0.1% of students used heroin in the past 30 days (0.2% at state level)
- 0.6% of students used hallucinogens in the past 30 days (0.6% at state level)
- 0.8% of students used synthetic drugs in the past 30 days (0.6% at state level)

### *School violence*

- 23.2% of students reported being threatened with violent behavior at school (20.3% at state level)
- 8.8% of students reported being attacked at school (8.4% at state level)
- 4.6% of students reported being threatened with a weapon at school (4% at state level)
- 2.1% of students reported being attacked with a weapon at school (1.6% at state level)

### *Abuse*

- 25.6% of students experienced physical injury by another person in the past 12 months (24% at state level)
- 29.2% of students experienced threats by another person in the past 12 months (26.7% at state level)
- 57.5% students experienced emotional abuse by another person in the past 12 months (60.3% at state level)
- 10.6% of students experienced isolation from friends and family in the past 12 months (12% at state level)

### *Self-harm and Suicide*

- 18.1% of students had engaged in self-harm in the past 12 months (15.1% at state level)
- 13.8% of students had planned suicide in the past 12 months (12.7% at state level)
- 11.5% of students had attempted suicide in the past 12 months (9.5% at state level)
- 2.9% of students needed medical treatment for suicide attempt in the past 12 months (2.3% at state level)

### *Environmental*

- 5.4% of students experienced homeless in the past 12 months (3.9% at state level)
- 7.4% of students experienced parental separation in the past 12 months (6.3% at state level)
- 44% of students experienced death of a friend or a family member in the past 12 months (40.3% at state level)

- 9% of students skipped a meal because of family finances in the past 12 months (6.6% at state level)

### **The Annual Child Protective Services Report for PA (2016)**

- 4,597 of 44,359 child abuse reports were substantiated in Pennsylvania
- 1.7 out of 1000 children have a substantiated child abuse claim in Pennsylvania
- 6 out of 80 suspected cases are substantiated reports of repeated abuse in Pennsylvania
- Substantiated reports by gender in Pennsylvania was 51.1% female and 48.9% males
- 5,338 reports made to general protective services, of which 3,438 were screened out (primarily because the referral did not allege abuse) in Erie
- Of the 1,255 valid reports of child abuse, 1,231 were evaluated and 94 reports of child abuse were substantiated in Erie

### **PA Dept of Health; Health Information (2014)**

- 1,036 children under the age of 18 were maltreated in Erie county

### **All Aboard: Consolidated Grant Program to Address Children and Youth Experiencing Domestic and Sexual Assault and Engage Men and Boys as Allies Needs Assessment (2018) Melanie D. Hetzel-Riggin, Ph.D.**

#### *Child Abuse*

- For Erie County, in 2013, there were 902 total reports of child abuse, including 58 suspected re-abuse cases, with 114 (12.6%) of these reports substantiated compared with 900 total reports in 2012 and 84 (9.3%) substantiated.
- For Pennsylvania, there were 26,944 total reports of child abuse in 2013, including 1,500 suspected re-abuse cases, with 3,425 (12.7%) substantiated compared with 26,664 total reports in 2012 and 3,565 (13.4%) of these substantiated.
- In 2016, there were 1,231 reports of child abuse in Erie County; 94 were substantiated.

#### *Crime*

- In 2015, the total crime index for Erie County was 6,403, or 2,305 crimes per 100,000 population. Of these, 655 were violent crimes, 5,748 property crimes, 11 murder, 94 rape/sexual assault, 172 robbery, 378 aggravated assault, 1,236 burglary, 4,290 larceny theft, 184 motor vehicle theft, and 38 arson. Total number of criminal offenses for 2015 was 13,941, of which 2,306 were other assaults, 269 were sex offenses, and 112 were family offenses.

#### *School*

- In the past twelve months (2017), 23.2% of students in Erie County reported being threatened with violent behavior on school property (compared to 20.3% at the state of Pennsylvania level).
- In the past twelve months (2017), 8.8% of students in Erie County reported having actually been attacked on school property (2.1% reported being attacked with weapons).

## **Erie County Maternal, Infant, & Child Health Report, 2011-2013. Erie County Department of Health**

- From 2011-2013, there were a total of 66 resident infant deaths in Erie County, with a corresponding infant mortality rate of 6.9 deaths per 1,000 live births.
- In Pennsylvania, the infant mortality rate is 6.7 deaths per 1,000 live births.

### **Erie County Community Health Needs Assessment (2015)**

#### *Crime*

- In Pennsylvania, crimes are reported by type of offense. Part I offenses include manslaughter by negligence and Crime Index offenses. Crime Index offenses are more serious and include murder and non-negligent manslaughter, forcible rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson.
- Rates of crime are higher for Erie County compared with the state of PA.
- In 2013, there were 20,306 actual crimes of all types (21,832 for 2012) reported to the Pennsylvania Uniform Crime Reporting (UCR) Program for Erie County. Of these, 7,430 were confirmed Crime Index offenses with a rate of 2,649 per 100,000 population and included 2,131 arrests while 12,876 were Part II offenses with a rate of 4,591 and included 7,065 arrests.
- For Erie City, there were 3,689 Crime Index offenses reported for a rate of 3,659 and 6,047 Part II offenses reported for a rate of 5,998.
- For Pennsylvania, 878,971 actual crimes of all types (917,029 for 2012) were reported to the UCR in 2013. Of these, 306,917 were confirmed Crime Index offenses with a rate of 2,402 per 100,000 population and included 88,188 arrests while 572,036 were Part II offenses with a rate of 4,478 and 352,493 arrests.

#### *Child abuse*

- In 2013, there were 902 total reports of child abuse, including 58 suspected re-abuse cases, in Erie County with 114 (12.6%) of these reports substantiated compared with 900 total reports in 2012 and 84 (9.3%) substantiated.
- For Pennsylvania, there were 26,944 total reports of child abuse in 2013, including 1,500 suspected re-abuse cases, with 3,425 (12.7%) substantiated compared with 26,664 total reports in 2012 and 3,565 (13.4%) of these substantiated.

#### *Sources for Crime and Child Abuse*

- Pennsylvania Crime Reporting System Reports. Retrieved from <http://www.paucrs.pa.gov/UCR/Reporting/RptMain.asp>
- Unified Erie. Retrieved from <http://www.unifiederie.org/>
- Pennsylvania Department of Human Services, Child Welfare Services, Child Abuse Reports. Retrieved from <http://www.dhs.state.pa.us/forchildren/childwelfareservices/>

#### *Hospitalization*

- In 2013, there were a total of 2,932 hospitalizations due to injury in Erie County (Table 6). Most of these hospitalizations were the result of unintentional injuries (accidents). Overall,

2,265 (77.3%) were due to accidents, 363 (12.4%) were self-inflicted injuries, 85 (2.9%) were assault injuries, and 219 (7.5%) were classified as undetermined injuries.

### *Mental Health*

- Based on the Behavioral Risk Factor Surveillance Survey (BRFSS), the self-reported percentage of Erie County adults aged 18 and above who were ever told they had a depressive disorder was 21% in 2011-2013 compared to 19% in 2011.
- This is higher than PA at 18% (2011-2013).
- Based on the BRFSS, the self-reported percentage of Erie County adults aged 18 and above who were ever told they had an anxiety disorder was 17% in 2011.

### **Conclusion**

Data associated with trauma prevalence in Erie County and the wider state of Pennsylvania was mainly extracted from existing databases, such as death certificates from the department of health, discharge data from hospitals, national census, and the PA ChildLine from department of human services. Other data sources include telephone and paper surveys in school and community settings. The majority of the data are cross-sectional rather than longitudinal. For longitudinal data, attrition rate was not provided. Furthermore, little information was provided on the demographic statistics (e.g., age, sex, race, socioeconomic status) of the sample population.

The range of traumatic events captured in existing studies/reports of trauma prevalence in Erie County and the wider state of Pennsylvania is relatively narrow. They include serious accident/illness/medical procedure, traumatic grief/separation, physical and sexual abuse/assault, emotional abuse/psychological maltreatment, neglect, and school violence. There was little, if any, information provided on other traumatic events listed by SAMHSA, such as victim/witness to domestic/interpersonal/community violence, historical trauma, military trauma, war/terrorism, natural/manmade disasters, and forced displacement. Most of the studies/reports focused mainly on two to three types of traumatic events. The operational definitions of certain traumatic events are relatively broad (e.g., child abuse). At the same time, the operational definitions of certain traumatic events vary across studies/reports (e.g., experienced emotional abuse by another person vs. parents swore, insulted, or put them down at least once). Additionally, there are relatively limited statistics available for adult populations outside of vital statistics. Information about trauma exposure in adult populations remains limited. Overall, this suggests a need for a more comprehensive assessment of trauma prevalence across different demographic groups in Erie County and the wider state of Pennsylvania. Furthermore, these demographic characteristics should be cross references with that of the greater population to assess whether certain demographic groups are over/under represented (such as gender, ethnicity, sexual orientation, disability, and age).

## Appendix A

### **Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data 2015. <https://www.cdc.gov/brfss/brfssprevalence/>.**

The Behavioral Risk Factor Surveillance Survey (BRFSS) is a telephone-based health survey (including both cell phones and landlines) of adults age 18 and above that began in 1984, initiated by the CDC. It is administered nationally, statewide, and regionally. Surveyed topics focus on health care access, health conditions, risk behaviors, and preventive health practices.

### **PA Department of Health; PA Vital Statistics 2010-2014; Bureau of Health Statistics and Research. Combined\_Injury\_Report\_2010-2014**

These data were provided by the Division of Health Informatics, Pennsylvania Department of Health. The Department specifically disclaims responsibility for any analyses, interpretations or conclusions. Pennsylvania's Certificate of Death is the source document for the injury mortality data in this report. Conflicting or incomplete information is handled with a query program, which follows up with funeral directors, physicians, and hospital personnel. The National Center for Health Statistics (NCHS) monitors Pennsylvania's coding of statistical data on death certificates. A 0.5% sample of death records coded and submitted monthly by the state is used as a quality control mechanism by NCHS.

### **PA Department of Health; Injuries in PA; Violence and Injury Prevention Program (2014)**

Information provided by the Bureau of Health Promotion and Risk Reduction; Division of Health Risk Reduction. <http://www.health.pa.gov/>. These data were from the 2014 Statewide hospital discharge data compiled by PA Healthcare Cost Containment Council. They represent all 2014 hospital discharges in acute care hospitals due to injuries to PA residents. Limitations of data include coders inconsistent use of E code field with multiple discharges and missing or out of range data.

### **PA Department of Health; Adverse Childhood Experience; 2010 Behavioral Risk Factor Surveillance System**

In 2014, an 11 question Adverse Childhood Experience (ACE) module was included for Pennsylvania in the Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS) survey. BRFSS data can be found through the Pennsylvania Department of Health's Enterprise Data Dissemination Informatics Exchange (EDDIE). The Adverse Childhood Report (PDF) and Poster (PDF) briefly summarize the data.

For additional reports on violence and injury topics, or for information on violence and injury prevention at the PA Department of Health, please visit the home page for Violence and Injury Prevention.

### **Healthy People 2020 (All data between 2010-2014)**

Healthy People 2020 (HP2020) is a set of goals and objectives with 10 year targets designed to guide national health promotion and disease prevention efforts in order to improve the health of all Americans. The Department's Division of Health Informatics provides statistics to assist in the monitoring of progress of these objectives at the state and county level. For each measurable objective, an Operational Definition describes the methodology for assessing progress. The

Operational Definition defines the measure and includes information about the data source, baseline details (numerator, denominator, and questions used to collect the data), target, target-setting method, and other relevant items. If, over time, the changes are made to the data or any of the components related to assessing progress, the data and/or operational definition will be updated to reflect the revisions.

The data used to track most population-based Healthy People 2020 objectives are derived from either a national census of events (for example, the National Vital Statistics System) or from nationally representative sample surveys (for example, the National Health Interview Survey).

### **Erie County Profile Report: PA Youth Survey (2015)**

The Pennsylvania Youth Survey (PAYS) is conducted every other year in PA since 1989. It surveys students in public, parochial, private, and charter schools in grades 6, 8, 10, and 12 about their knowledge, attitudes, and behaviors. This survey was taken by 229,845 public and private school students in PA in Fall 2015 (out of 308,217 possible students). After data cleaning, 216,916 surveys remained and were analyzed. A representative sample of schools was selected and offered the survey using stratified random sampling with random starts. The sample frame included 253 schools and ultimately 175 schools participated. The sample was also weighted, to be reflective of the population and correct for response bias. There were nearly an equal number of males and females that completed the survey (50.3% male). In addition, 90.4% of the sample was non-Hispanic and 72.8% was White.

### **The Annual Child Protective Services Report for PA (2016)**

The following statistics are derived from data reported from The Department of Human Services on the reports made to PA ChildLine and protective services between January 1, 2016 and December 31, 2016.

### **PA Dept of Health; Health Information (2014)**

Lack of information on methodology

### **All Aboard: Consolidated Grant Program to Address Children and Youth Experiencing Domestic and Sexual Assault and Engage Men and Boys as Allies Needs Assessment (2018) Melanie D. Hetzel-Riggin, Ph.D.**

Data Sources:

- Annual Child Protective Services Report: [http://www.dhs.pa.gov/cs/groups/webcontent/documents/report/c\\_260865.pdf](http://www.dhs.pa.gov/cs/groups/webcontent/documents/report/c_260865.pdf)
- Erie County Health Needs Assessment: <https://www.eriecountypa.gov/ecdh/pdfs/2015%20Erie%20County%20Community%20Health%20Needs%20Assessment.pdf>
- Pennsylvania Uniform Crime Reporting: <http://www.paucrs.pa.gov/UCR/ComMain.asp>
- Pennsylvania Youth Survey: [http://www.pccd.pa.gov/Juvenile-Justice/Pages/Pennsylvania-Youth-Survey-\(PAYS\).aspx](http://www.pccd.pa.gov/Juvenile-Justice/Pages/Pennsylvania-Youth-Survey-(PAYS).aspx)
- Single Point in Time Survey: <http://www.eriehometeam.org/wp-content/uploads/2012/07/2017-SPIT-report-FINAL.pdf>
- Unified Erie Community Action Plan: <https://www.unifiederie.org/>

- United States Census, American Fact Finder:  
<https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

### **Erie County Community Health Needs Assessment (2015)**

Both primary and secondary data were used. Health indicators are reported as individual data points, are included in trend analyses, and are compared to available state, national, and Healthy People 2020 statistics. When possible, health indicators are also reported according to gender, race, ethnicity, age, education, and income. All data sources are listed at the end of each titled section, most are linked directly to the source, and all were current as of June 2015. The most recent data available at the time of collection is reported. Beginning with the 2011 Behavioral Risk Factor Surveillance System (BRFSS) survey, a change in weighting methodology used by Pennsylvania and the U.S. to adjust for irregular distribution within the sample population may shift estimates and trend lines. The sampling used for the Erie County BRFSS was representative of the county population. As a result, traditional subpopulation weighting was used. Notable data deficiencies include limited youth health indicators, a lack of data related to the lesbian, gay, bisexual and transgender (LGBT) community, a lack of comprehensive community mental health statistics, and limited data for adult drug abuse including prescription drugs.