

# **Karl E. Williams, MD, MPH**

## ***CURRICULUM VITAE***

**Chief Medical Examiner  
Allegheny County  
1520 Penn Avenue  
Pittsburgh, PA 15222  
(412)350-4800**

**Forensic Consulting Services  
5825 Marlborough Ave  
Pittsburgh, PA 15217  
(412) 261-5544**

### **PERSONAL INFORMATION**

Date and Place of Birth:	December 12, 1947 - Cleveland, Ohio
Marital Status:	Married
Children:	Son (age 26)

### **CURRENT PRACTICE**

Chief Medical Examiner	Allegheny County, PA
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### **EDUCATION**

#### **GRADUATE MEDICAL EDUCATION**

Occupational/Environmental Medicine MPH, 2003	Masters in Public Health University of Pittsburgh, Graduate School of Public Health
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- Master's Thesis – "The 1991 OSHA Cadmium Standard"

**MEDICAL RESIDENCY TRAINING**

Internal Medicine:

1974-1975

Veterans Administration Hospital  
Washington, DC  
H. Zimmerman, M.D.

- Rotation in Internal Medicine
- Eight months at the Veteran's Administration Hospital with the remaining four months at Georgetown University Hospital

Pathology:

1979-1981

Allegheny General Hospital, Pittsburgh, PA  
Director: Robert J. Hartsock, M.D.

1981-1983

Shadyside Hospital, Pittsburgh, PA,  
Director: Edwin Fisher, M.D.

- Anatomic Pathology, Allegheny General Hospital
- Clinical Pathology, Shadyside Hospital
- Board Certified (AP/CP) - 1984

Forensic Pathology:

1983 - 1985

Allegheny County Coroner's Office;  
Pittsburgh, PA  
Coroner: Joshua A. Perper, MD

- Attending Staff Pathologist, with the first year qualifying as a resident in Forensic Pathology
- Board Certified – Forensic Pathology - 1985
- Participated in and co-authored Fire Safety Program and Disaster Response Plan for Allegheny County.
- Worked closely with the District Attorney's Office and testified in numerous homicide cases.

**MEDICAL SCHOOL**

1969-1974

1974, M.D.

University of Pittsburgh  
School of Medicine  
Pittsburgh, PA

- In freshman year won the Pennsylvania Medical Society Scholarship Award
- Took sabbatical between sophomore and junior years. Worked in research laboratory studying tropomyosin at Mellon Institute (Pittsburgh, PA)

**MEDICAL SCHOOL (cont.)**

- Participated during senior year in a clinical externship in Community Medicine on the Navaho Indian Reservation, stationed at Fort Defiance, Arizona, participating in study of bacterial meningitis (See Papers).

**COLLEGE**

1965 – 1969                                  Oberlin College,  
1969, BS                                      Oberlin, Ohio

- Biology major, with a minor in Religious Studies.

**HIGH SCHOOL**

1961 – 1965                                  South Hills High School  
    Pittsburgh, Pennsylvania

- Class valedictorian
- Awarded Hall of Fame, 2011

**WORK EXPERIENCE**

1985-2006                                  Director of Laboratories,  
    Ellwood City Hospital,  
    Ellwood City, PA

- Twenty years' practice in Anatomic and Clinical Pathology with direct administrative responsibility of 35 – 40 employees
- Disaster Management Team, 2001 – 2006
- Infectious Disease Control Committee – permanent head until 2006
- Permanent Chairman of Professional Activity Committee, responsible for hospital-wide Quality Assurance and Utilization Review
- President of Medical Staff. Rewrote Hospital Bylaws and participated in evaluation of relationship of hospital to JCAHO
- Secretary/Treasurer of Medical Staff

**WORK EXPERIENCE (cont.)**

- Served as College of American Pathologist Laboratory Inspector every two years - 1985 - 2006
- Implemented three laboratory information systems for acquisition and reporting of laboratory results
- Instituted a cadmium and lead testing program using Atomic Adsorption Spectrophotometry

Vice-President, Technical Services

Apple Medical Mobile: Ellwood City Hospital

- Responsible for laboratory and technical consulting to the Occupational/Environmental Division of Ellwood City Hospital

1994-1995

Pathologist

St. Joseph's Hospital  
Providence, RI

1985 – 2006

Consultant, Department of  
Area Agency on Aging, Allegheny  
County, PA

- Determine issues related to eligibility for Nursing Home placement and Protective Services needs.

1975 – 1979

Staff Physician

Emergency Department  
Moses Taylor Hospital  
Scranton, Pennsylvania

2005 – 2012

Medical Director

Precision Therapeutics, Inc.  
Pittsburgh, PA

- High-technology laboratory performing chemotherapeutic drug sensitivity testing for cancer patients

## **FORENSIC PRACTICE**

- Appointed Medical Examiner of newly formed Office of the Medical Examiner of Allegheny County, Pennsylvania; January, 2007
  - First laboratory-wide national ASCLD/ISO certification
  - Institution of facility wide Laboratory Information Management System
  - Institution of 24\7 evidence accessioning and tracking
  - Numerous forensic science grants awarded through establishment of in-house grant writing committee
  - One of six national grants awarded for automated DNA processing
  - Institution of hospital standards of management and Quality Assurance
- Responsible for setting up and operation of the temporary morgue facility at the 911 Air Force base after the crash of USAir Flight 427 in September, 1994. Using an entire volunteer force, it was the first civilian operation to employ a team of specialists from the Armed Forces Institute of Pathology and resulted in the identification of all but four of 126 victims
- Twenty years' experience serving as the Consulting Forensic Pathologist to the elected coroners of several western Pennsylvania counties, including Lawrence, Mercer, Butler, Beaver, Erie and Crawford. Activities include full range of scene investigation, toxicological evaluations, autopsy and courtroom testimony.
- Responsible for resolving long-standing questions concerning the nature of observed elevations in post-mortem cadmium levels in Indiana County that were originally thought to be serial poisonings or environmental contamination.
- Child Death Review Committee, Lawrence County, PA (to 2007)
- Active practice as prosecution and defense expert in criminal, civil and toxicology matters
- Presentations to local legal and law enforcement agencies
- Allegheny County Child Death Review Team (2007 – present)
- Allegheny County Child Fatality/Near Fatality Review Team (2007 to present)
- Advisory Board to the Attorney General of the Commonwealth of Pennsylvania on Issues of Child Abuse and Neglect (2009 to present)

**PROFESSIONAL ORGANIZATIONS**

- American Academy of Forensic Sciences – Fellow
- National Association of Medical Examiners
- Allegheny County Medical Society
- Pennsylvania Medical Society
- American Medical Association

**LICENSURE & CERTIFICATION**

Board Certification

- Anatomic and Clinical Pathology – 1983
- Forensic Pathology – 1985

State Licensure

- Pennsylvania      1975 – present
- Florida              2007 – present

**TEACHING APPOINTMENTS**

Clinical Instructor: 1981-1984	University of Pittsburgh School of Medicine, Department of Pathology
Assistant Clinical Professor: 1984 – 1988	School of Health Related Professions University of Pittsburgh
Clinical Assistant Professor: 1984 – 2007	University of Pittsburgh School of Medicine, Department of Pathology
Adjuvant Clinical Professor: 2011 - present	California University of Pennsylvania,
Adjuvant Instructor, Department of Criminal Justice & Intelligence Studies, 2012	Point Park University, Pittsburgh,
Adjuvant Professor of Pharmacy and Therapeutics, 2016	School of Pharmacy, University of Pittsburgh

**PUBLICATIONS**

1. Coulehan JL, Michaels RH, Williams KE, "Bacterial Meningitis in Navajo Indians." *Public Health Reports*, 91(5): 464-68, 1976
2. Perper J, Rozin L, Williams KE, "Sudden Unexpected Death Following Exercise and Congenital Anomalies of Coronary Arteries". *American Journal of Forensic Medicine and Pathology*, 6(4): 289-92, 1985
3. Winek CL, Wahba W, Williams KE, "Caffeine Fatality: A Case Report" *Forensic Science Inter.* 29: 207-11, 1985
4. Koehler SA, Shakir, A., Williams, KE, "Accidental Through and Through Penetrating Injury to the Neck: A Case Report" *American Journal of Forensic Medicine and Pathology* 2011 Mar; 32(1):17-9
5. Panella MP, Koehler SA, Shakir, A, Williams, KE, "Unsuspected Hereditary Hemochromatosis at Forensic Autopsy : Its presentation, confirmation and implications", *American Journal of Forensic Medicine and Pathology* (In Press)
6. "Peripartum Aortic Dissection Presented as Sudden Death." Baiyang Xu, MD., Karl E. Williams, MD., MPH., Todd Luckasevic, DO., Abdulrezzak Shakir, MD. *Archives of Pathology & Laboratory Medicine*, October 2009: Vol. 133: P1667
7. "Crime Laboratories After the NAS Report" in It's More Complex Than You Think: A Chief's Guide to DNA, *Police Executive Research Forum*, US Department of Justice, 2010
8. "Autopsy report diagnoses for motor vehicle-related deaths: how much more can they add to death certificate information?" Mertz KJ, Koehler SA, Weiss HB, Williams KE *Int J Contr Saf Promot.* 2011 May 9:1-5
9. "An in vitro Chemoresponse Assay Defines a Subset of Colorectal and Lung Carcinomas Responsive to Cetuximab", *Cancer Biol and Therapy*, 11:2; 196-201, 2011
10. "The Continuing Legal Evolution of Forensic DNA" Williams KE and Panella MJ, *Pennsylvania Lawyer*, February, 2013; pp 34 – 37
11. "Coxsackievirus B4 myocarditis and meningoencephalitis in newborn twins." Bissel SJ<sup>1</sup>, Winkler CC, DelTondo J, Wang G, Williams K, Wiley CA *Neuropathology.* 2014 Oct;34(5):429-37. doi: 10.1111/neup.12121. Epub 2014 Apr 7.

12. "Underrepresentation of heroin involvement in unintentional drug overdose deaths in Allegheny County" Mertz KJ<sup>1</sup>, Janssen JK, Williams KE  
*J Forensic Sci.* 2014 Nov;59(6):1583-5. doi: 10.1111/1556-4029.12541. Epub 2014 Jul 16
13. "Patterns and Trends in Accidental Poisoning Deaths: Pennsylvania's Experience 1979 – 2014" Balmert LC, Buchanich JM, Pringle JL, Williams KE, Marsh GM  
*PLOS One Published: March 10, 2016\_DOI: 10.1371/journal.pone.0151655*
14. "Correction: Patterns and Trends in Accidental Poisoning Deaths: Pennsylvania's Experience 1979-2014" Balmert LC, Buchanich JM, Pringle JL, Williams KE, Burke DS, Marsh GM  
*PLoS One.* 2016 Jul 13;11(7):e0159469. doi: 10.1371/journal.pone.0159469.
15. "Patterns and trends in accidental poisoning death rates in the US, 1979-2014"  
Buchanich JM<sup>1</sup>, Balmert LC<sup>2</sup>, Pringle JL<sup>3</sup>, Williams KE<sup>4</sup>, Burke DS<sup>5</sup>, Marsh GM<sup>2</sup>  
*Prev Med.* 2016 Aug; 89:317-23. doi: 10.1016/j.ypmed.2016.04.007. Epub 2016 Apr 13

### **PRESENTATIONS**

1. American Academy of Forensic Sciences, Annual Meeting, Washington, DC, February, 2008; "Erroneous Diagnosis of Cadmium Poisoning"
2. "One entrance wound, three bullets, and four pulls of the trigger: An unusual case of a suicidal gunshot wound of the head", Platform presentation at the American Academy of Forensic Sciences, 2008 Annual Meeting, Washington DC
3. "Newborn Kidnapping Via Crude Cesarean Section." Luckasevic T, Frazier L, Xu B, Shakir A, and Williams KE. Platform Presentation at the American Academy of Forensic Sciences 2010 Annual Meeting, Seattle, WA
4. "Acetaminophen Induced Death of a Fetus with Maternal survival: An Unusual Case of a suicide Attempt Resulting in Fetal Death". Racette JK, Luckasevic T, Xu B, Shakir A, and Williams KE. Platform Presentation at the American Academy of Forensic Sciences 2010 Annual Meeting, Seattle, WA.
5. "Death due to thermal injury associated with TASER related discharge" Platform Presentation, National Association of Medical Examiners 2010 Annual Meeting, Cleveland OH
6. "Preserving DNA Evidence", Platform Presentation, National Association of Medical Examiners 2010 Annual Meeting, Cleveland OH
7. "Determination of Postmortem Interval", 2010 PA State Coroner's Convention, Pittsburgh, PA, September. 2010



8. Luckasevic TM, Xu B, Shakir AM, and Williams KE. "Bitten by Snake Shot: Attempted Homicide and Successful Suicide with Multiple Gunshot Wounds" Platform Presentation at the American Academy of Forensic Sciences 2011 Annual Meeting, Chicago, IL
9. "Decomposition and Estimated Time of Death", Allegheny County Medical Examiner's Office Continuing Education Course, May 18 and October 19, 2011
10. "Forensic DNA: Some Interesting Cases", Lycoming County Continuing Education, November 5, 2012
11. "Unusual Genetic Variant as a cause of SIDS ", Platform Presentation, NAME Annual Meeting, Baltimore, 2012
12. Williams KE, Freeman M "Mixed Fentanyl and Heroin Overdose Cluster Use of Epidemiologic Surveillance for Rapid Monitoring", Platform Presentation, NAME Annual Meeting, Portland, OR, 2014
13. Freeman M, Luckasevic TM, Williams KE, Eriksson A. "Characteristics of Traffic Crash-Related Blunt Traumatic Aortic Injury (BTAI)" Platform Presentation at the American Academy of Forensic Sciences 2016 Annual Meeting, Las Vegas, NV.
14. "The Allegheny County Overdose Crisis", PALS Conference, Lawrence County, PA. March 14, 2015
15. Dwyer JB, Luckasevic TM, Janssen JK, Shakir AM, Williams KE. "Report of Increasing Acetyl Fentanyl Deaths in Allegheny County, Pennsylvania" Platform Presentation at the American Academy of Forensic Sciences 2016 Annual Meeting, Las Vegas, NV.
16. "The Allegheny County Overdose Crisis", PALS Conference, Lawrence County, PA. March 9, 2016
17. "The Allegheny County Overdose Crisis", PALS Conference, Lawrence County, PA. March 9, 2017

**POSTERS**

18. Xu B, Williams KE, Luckasevic TM, and Shakir AM. "Peripartum Aortic Dissection Presented as Sudden Death" Poster Presentation at the College of American Pathologists 2009 Annual Meeting, Washington, D.C.
19. Xu B, Luckasevic TM, Shakir AM, and Williams KE. "Periventricular Leukomalacia in a 2-Month-Old Infant Who Was Born with Cocaine Addiction: A Case Report" Poster Presentation at the American Academy of Forensic Sciences 2011 Annual Meeting, Chicago, IL
20. Luckasevic TM, Xu B, Shakir AM, and Williams KE. "Man with a Blue Brain: A Case of Hydrogen Sulfide Poisoning" **Poster** Presentation at the American Academy of Forensic Sciences 2012 Annual Meeting, Atlanta, GA.
21. DelTondo JA, Luckasevic TM, Xu B, Shakir AM, and Williams KE. "Death due to Renal Toxicity Following Bath Salts Abuse" Poster Presentation at the American Academy of Forensic Sciences 2013 Annual Meeting, Washington, D.C
22. Nunez J, Luckasevic TM, Xu B, Shakir AM, and Williams KE. "The Ability to Shoot Back: Review of Multiple Suicidal Gunshot Wounds of the Chest" Poster Presentation at the American Academy of Forensic Sciences 2013 Annual Meeting, Washington, D.C.
23. Bilimoria F, Reed S, Dwyer J, Deltondo JA, Luckasevic TM, Williams KE. "Pack Mentality: Fatal Mauling in the African Painted Dogs' Zoo Exhibit" Poster Presentation at the American Academy of Forensic Sciences 2016 Annual Meeting, Las Vegas, NV.
24. Katz K, Cannon R . . . et. al . . Williams K "Loperamide-Induced Torsades de Pointes: A Case Study" American College of Medical Toxicology 2-17 Annual Meeting 2017
25. Creppage K, Yohannan J, Williams K, Buchanich J. et. al "STAMPS: Heroin and Illicit Fentanyl in Allegheny County, PA Presented at Opioid Crisis Meeting, March 2017, Harrisburg, PA
26. Buchaniich J, Balmert L, Williams K, Burke D." Incomplete Death Certificate Reporting Dramatically Underestimates the Opioid Epidemic" [Accepted] American College of Epidemiology Annual Meeting, September 2017, New Orleans 2017
27. Luckasevic TM. Williams K. et. al. "Tied to His Own Apron Strings: A Case of Accidental Strangulation by Power Tool" American Academy of Forensic Sciences, 70<sup>th</sup> Annual Meeting, Seattle WA, February, 2018

28. Xu B, Luckasevic TM, Shakir AM, and Williams KE “Unusual In-Custody Death” American Academy of Forensic Sciences, 70<sup>th</sup> Annual Meeting, Seattle WA, February, 2018

### **BOARD APPOINTMENTS**

Commonwealth of Pennsylvania Attorney General's Medical/Legal Advisory Board on Child Abuse, January 2008

Residency Committee, University of Pittsburgh, School of Medicine, Department of Pathology

President, Minutemen of the University of Pittsburgh School of Medicine

Executive Committee, Allegheny County Overdose Prevention Coalition

### **INVITED PRESENTATIONS**

1. “Proving Violent Injuries”, PA District Attorneys Institute, 2004
2. “Medical Examiner’s Autopsy Technologies”, Allegheny County Funeral Directors Meeting, March 21, 2007
3. “Coroners, Medical Examiners and Occupational Medicine”, Graduate School of Public Health, University of Pittsburgh, July 2007
4. Work Shop Session, Fourth Annual Conference on Hope and Healing, The Child Advocacy Center of Pittsburgh, April, 2009
5. “Behind the Veil – CSI in the Real World”, Scholar’s Program, University of Pittsburgh, 2009
6. “Curious Forensic Cases”, First Annual Pathologists Assistant Conference, April, 2011 “Unexpected Death and the Role of the Coroner”, Jameson Health System, Continuing Education, May 2011
7. “An Introduction to Forensic DNA: Mendel to Perlin”, Federal District Court, Western District of Pennsylvania, Annual Meeting Keynote Speaker, 2011
8. Lecture and ME Office Tour. Pittsburgh Paralegal Association, September, 2011

9. “An Introduction Forensic DNA”, Supreme Court of the Commonwealth of PA and Appellate Judges, Annual Retreat, Bedford Springs, June 2012
10. “Forensic DNA”, SANE Sexual Assault Training, Duquesne University School of Nursing, July 2012
11. “Follow up on SIDS in Allegheny County 2007 to 2014” Fourth Annual Cribs for Kids Conference, April 15, 2015, Pittsburgh PA
12. “Advanced Crime Scene Investigator’s Course”, Allegheny County Police Training Academy, May 8, 2015
13. “The Allegheny County ME Office – Snapshot 2014” Carnegie Mellon University, Department of Statistics
14. “The Overdose Crisis in Allegheny County” Allegheny County Overdose Prevention Coalition Summer Conference, July 2016
15. “The Overdose Crisis in Allegheny County” Allegheny County Overdose Prevention Coalition Summer Conference, July 2017
16. AAFS Synthetic Opioids Session, Moderator and presenter. American Academy of Forensic Sciences, 70<sup>th</sup> Annual Meeting, Seattle WA, February, 2018

### AWARDS

Hall of Fame, South Hills High School, Pittsburgh PA, 2011

Tribute to Excellence Award, American Liver Foundation, - March, 2012

Honorary Member, Point Park University Eta Alpha Chapter of the National Criminal Justice Society – Alpha Phi Sigma - March, 2012

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