

The Multifaceted Role of the NM Medical Examiner System: Impacts of COVID-19, the Opioid Epidemic, and Violent Deaths

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Interim Chief Medical Investigator

Office of the Medical Investigator

Historical Background

- OMI was created in 1972 by the NM State Legislature, which replaced a county coroner system
- As a statewide medical examiner jurisdiction, the OMI is tasked with investigating all deaths within NM that are sudden, unexpected or unexplained, unattended, and violent deaths (7.3.2.8)
- OMI is a special program of UNM School of Medicine, within the Department of Pathology.
- Governed by the OMI Board: Dean of the school of medicine at UNM, Chief of the NMSP, Secretary of DOH, Chairman of the Funeral Home Board, and the Secretary of Indian Affairs

OMI Medical Examiners



OMI Faculty



Director of CFI



Epidemiologist



Forensic Anthropologist



Trauma Consultant/Grief Counselor

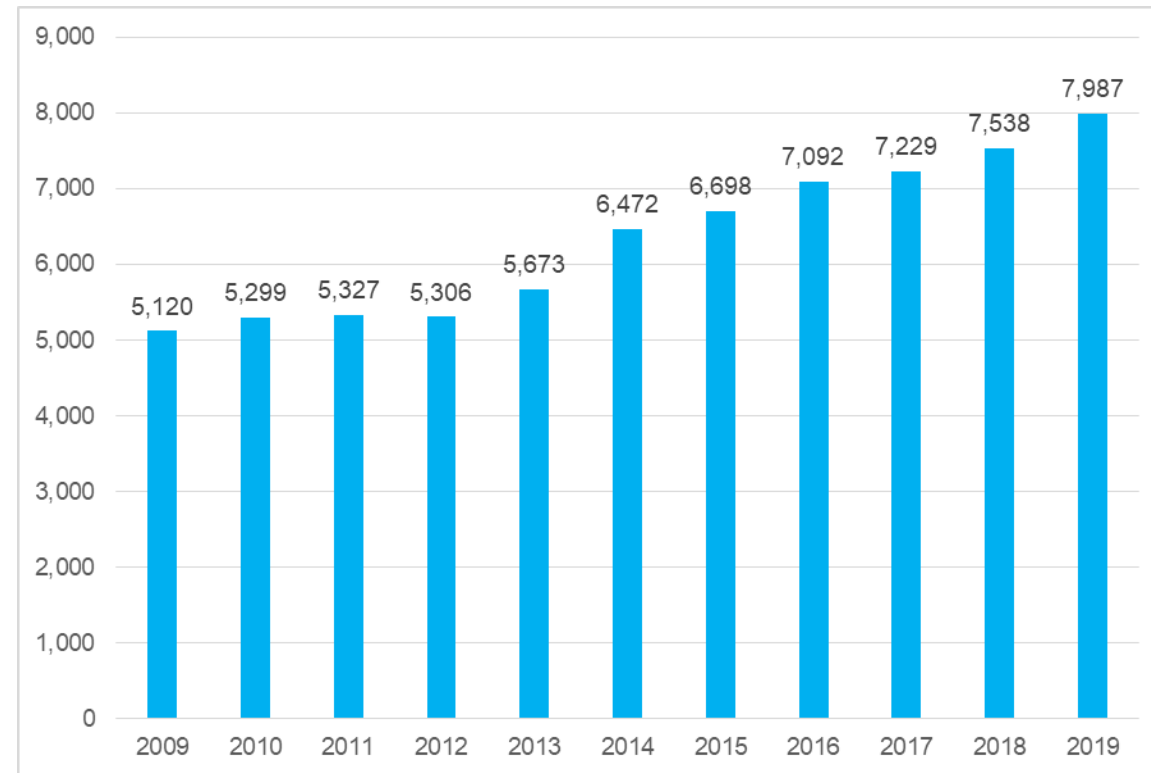


Forensic Odontologist

(45% vacancy rate for forensic pathologists at OMI)

Case Volume by Year

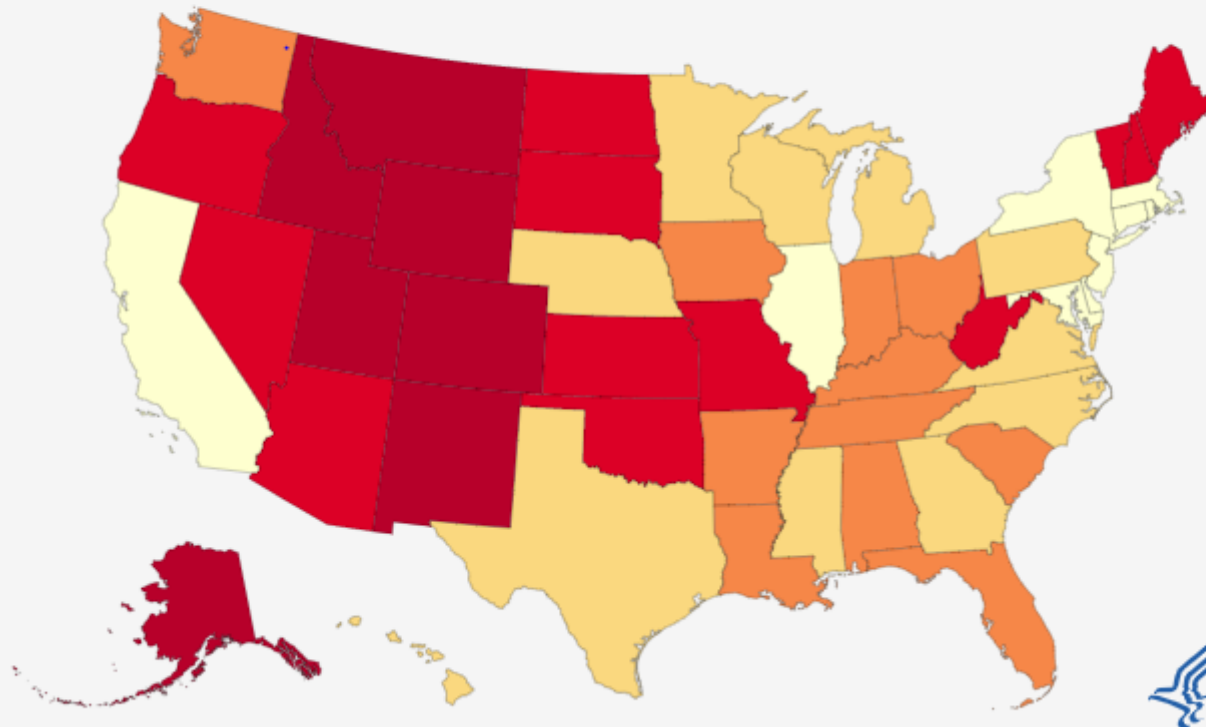
Total Cases (2010-2019)





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Suicide Mortality by State



Age-Adjusted Death Rates¹

- 8.3 — < 11.7
- 11.7 — < 15.1
- 15.1 — < 18.5
- 18.5 — < 21.9
- 21.9 — 25.2

Filters

Year

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National
Suicide
Rates

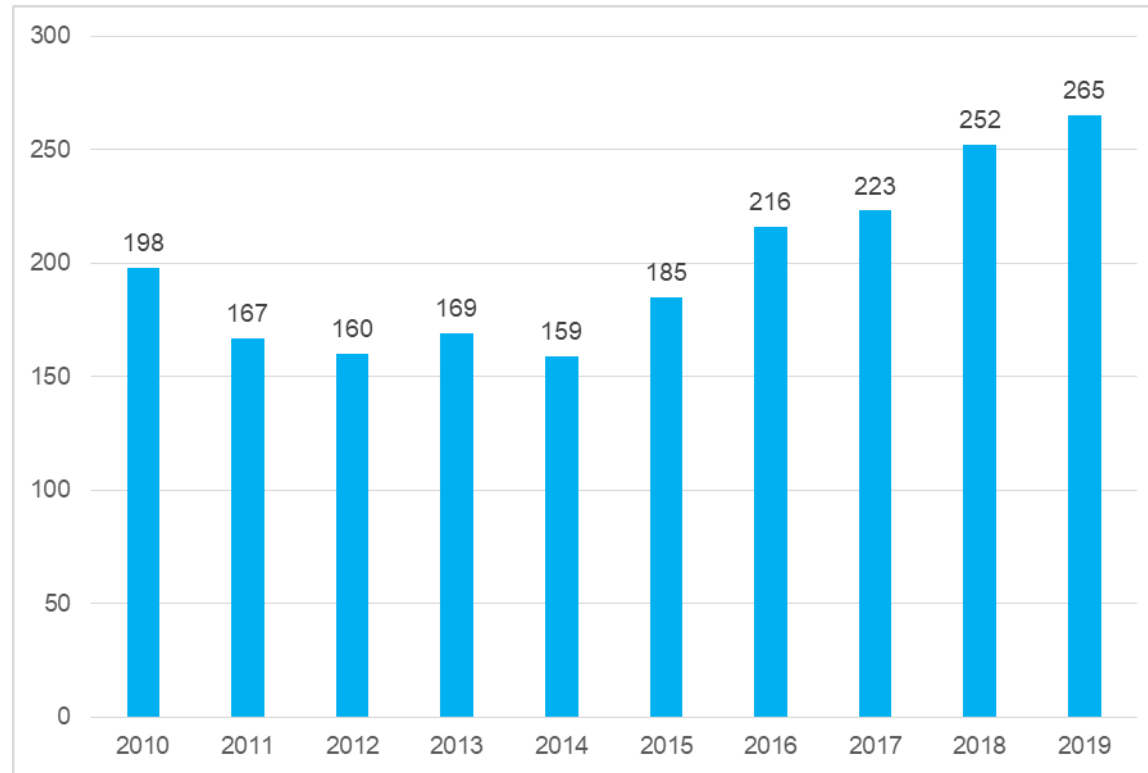
Violent Deaths by Suicide

Suicide Deaths, 2019

	Cause of Death	Total
→	Gunshot wound(s)	270
→	Hanging	135
	Substance intoxication	48
→	Multiple injuries	15
→	Stab wound(s)	7
	Carbon monoxide intoxication	5
	Asphyxia	7
	Exogenous insulin toxicity	2
	Exclusion of oxygen by argon gas inhalation	1
→	Amputation of hand	1
	Anoxic encephalopathy	1
→	Blast injuries	1

Violent Deaths, Homicide

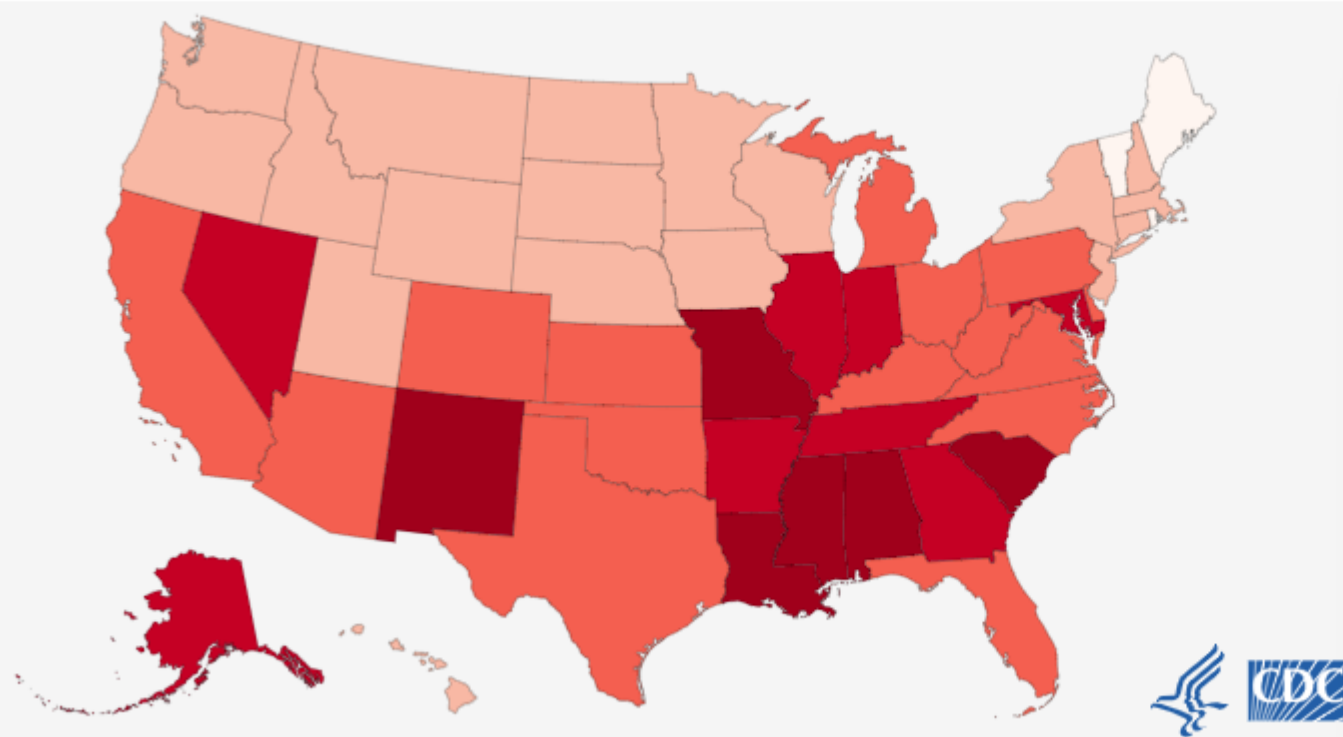
Homicide Deaths (2010-2019)



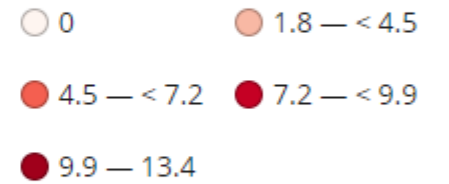


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Homicide Mortality by State



Age-Adjusted Death Rates¹



Filters

Year

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National
Homicide
Rates

Violent Deaths, Homicide

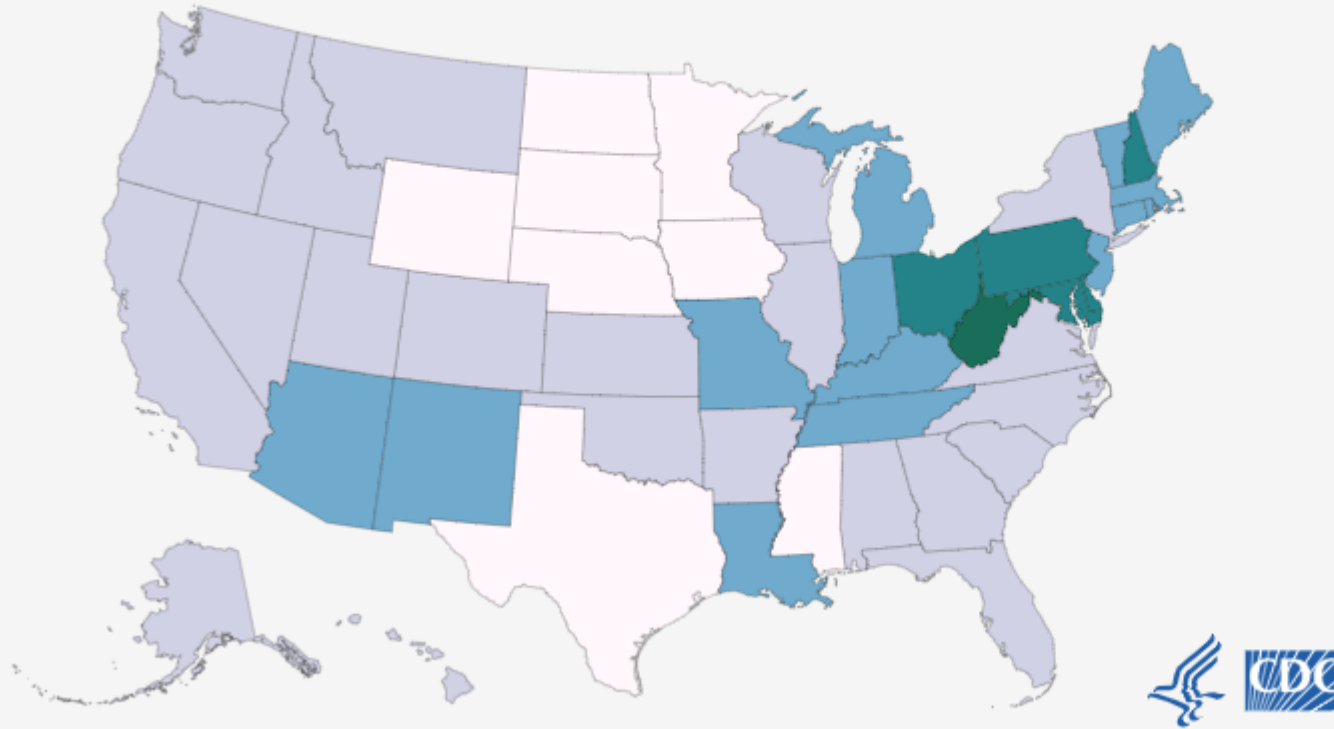
Cause of Death	Total
→ Gunshot wound(s)	178
Multiple injuries	39
Stab wound(s)	28
Asphyxia	5
Homicide by unspecified means	4
Sharp force injuries	4
Complications of physical restraint	2
Pneumonia	1
Sepsis	1
Excited delirium	1
Subdural hematoma	1
Complications of cerebral infarction following blunt trauma	1
Total	265



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Drug Overdose Mortality by State

Drug Overdose Mortality by State



Age-Adjusted Death Rates¹

- 0 — < 11.6 ● 11.6 — < 23.2
- 23.2 — < 34.8 ● 34.8 — < 46.4
- 46.4 — 57.8

Filters

Year

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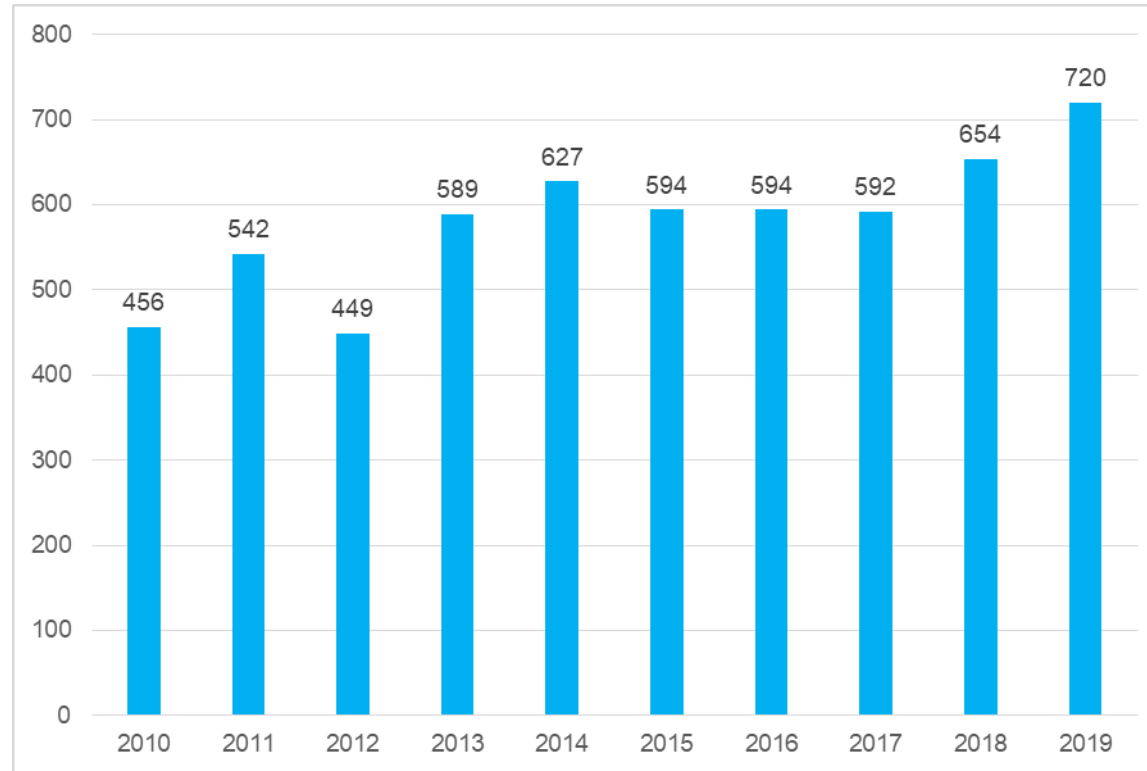
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Deaths due to Drugs

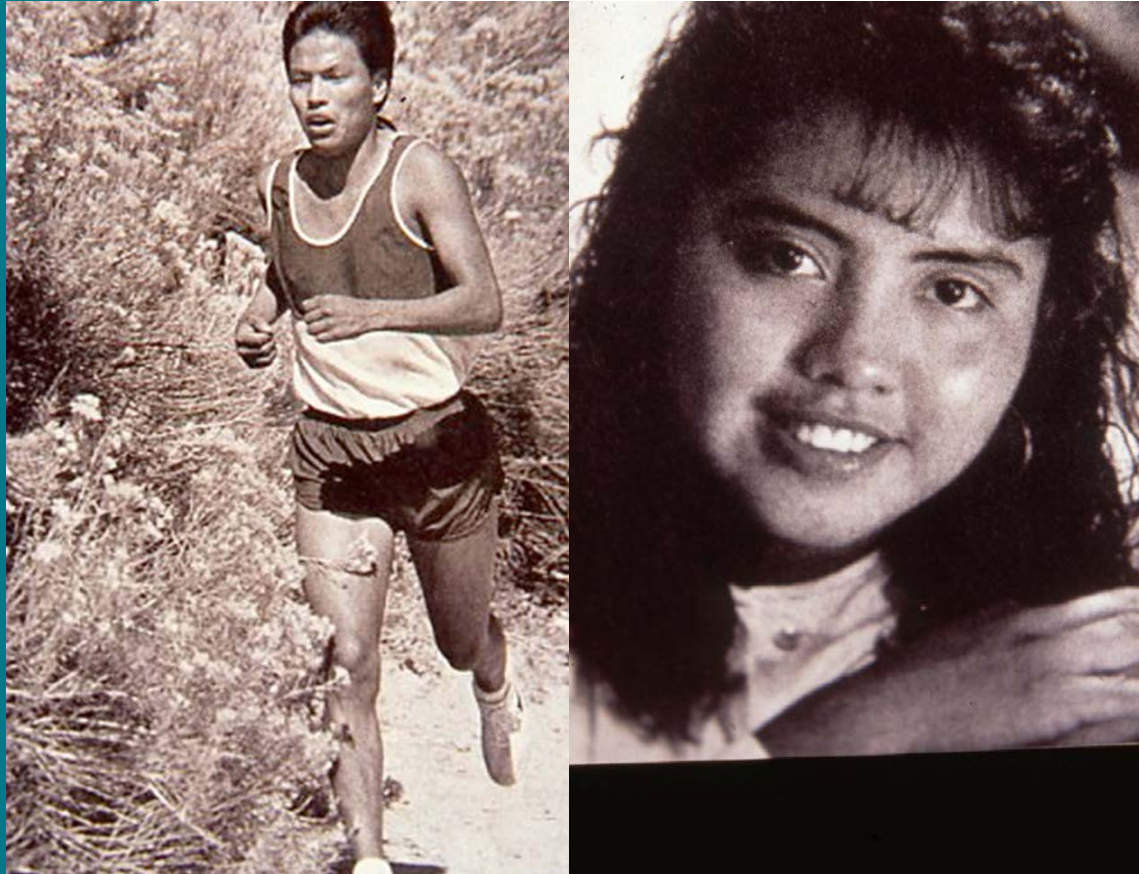
Deaths due to Drugs

Drug Related Fatalities, 2010-2019





Medical Examiner Role in Emerging Infectious Disease



- May 1993, a young, Athletic runner became ill with shortness of breath and died quickly after being rushed to a hospital.
- While reviewing his results, it was realized that his fiancé died a few days prior, with similar symptoms

Maintaining our role

COVID-19 (SARS-COV-2)

March 16, 2020 OMI performed its first examination for COVID-19

→ Negative

March 30 First positive examination at the OMI

- Autopsy performed by Dr. Zumwalt
- 40-year-old man, from Albuquerque with a 3-day history of flu-like symptoms (shortness of breath, “tickle” in his throat, declined to be seen by a doctor

October 27

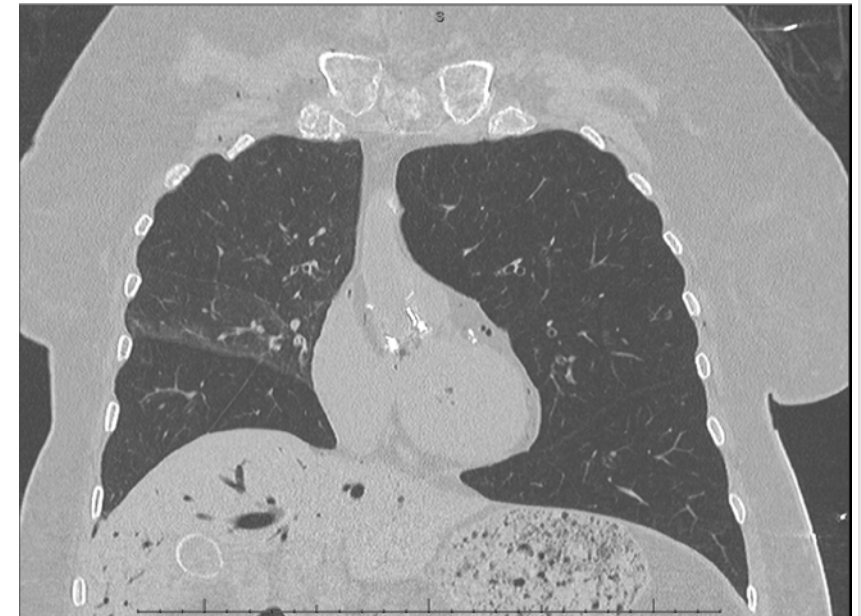
- OMI has performed 450 examinations for COVID-19
- 57 positive cases

CT Scanning

COVID Positive Lungs



Normal Lungs

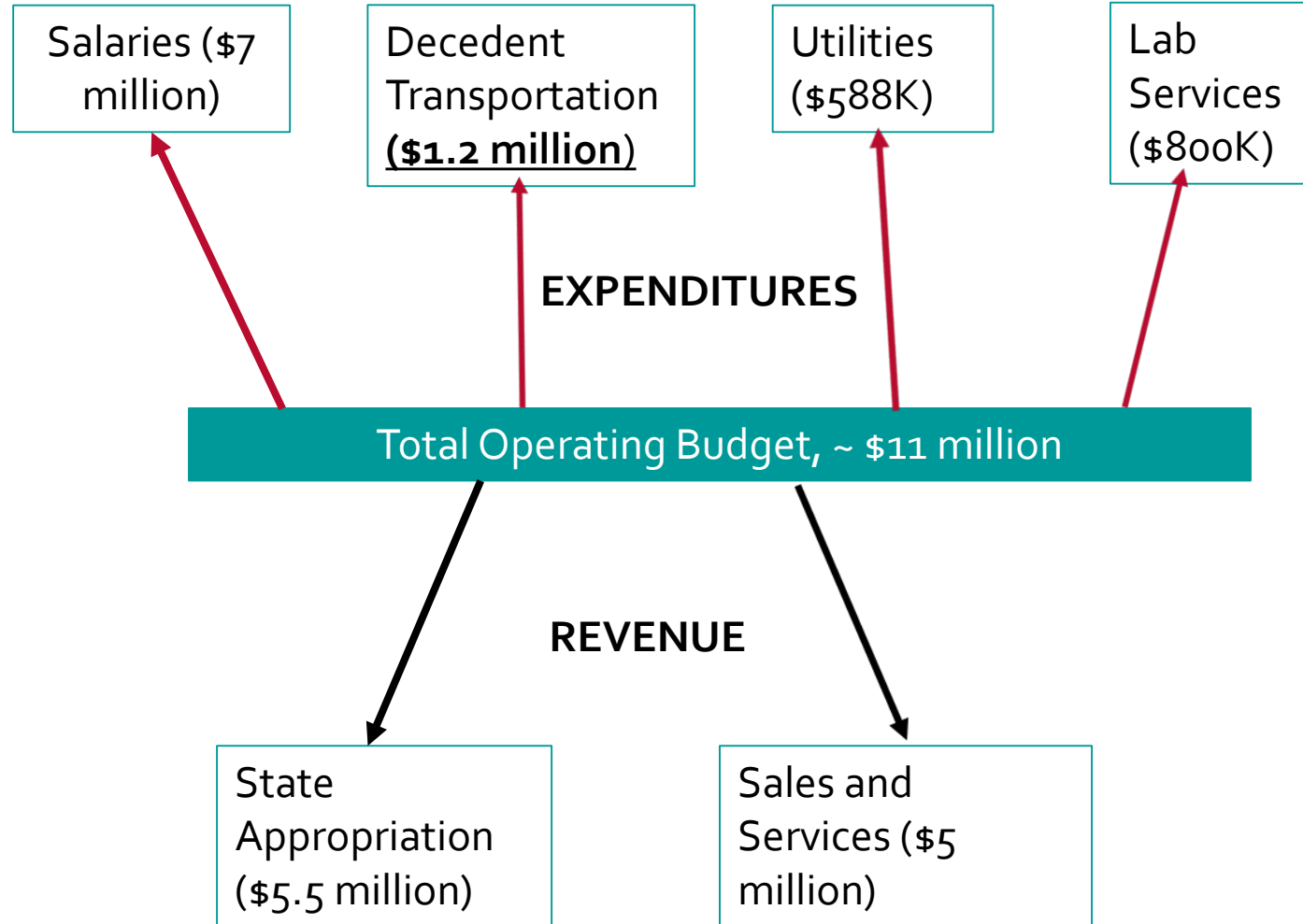


OMI COVID spending



- Total spending: \$207,000
- \$136,400 for PPE (personal protective equipment)
 - 1.) N95s not available for purchase during beginning of pandemic; supply chain cannot meet OMI needs
 - 2.) Purchased PAPRs

OMI's Total Operating Budget



OMI Departments Requiring Expansion

Central Office Investigators (12)

14 Autopsy Technicians (Morphology)

Total RPSP Request: \$537,950

1. OMI Departments Requiring Additional Staff: \$305,342

- 2 FTEs Morphology Technician (Autopsy).
 - Total Request \$93,702 (Salary + Fringe)
- 3 FTEs Central Office Investigators.
 - Total Request \$173,690 (Salary + fringe)
- 0.50 FTE Forensic Anthropologist Staff.
 - Total Request \$37,950 (Salary + Fringe)

2. Decedent Transportation: \$165,108

- Annual decedent transportation cost is \$1.1 to \$1.2 million
- Large expenditure to total operating budget

3. NMS Toxicology: \$67,500

- Non-pending toxicology projected expense for FY22 is approximately \$250,000



Why are more OMI investigators essential?

- 24/7, 365 days per year
- Respond to scenes
- Essential to identification
- Collect fingerprints
- Notify next of kin
- Coordinate DNA collection and submission to lab for identification
- Communicate with family members and law enforcement
- Obtain medical records needed for death certification



Why more autopsy technicians are needed:



- Autopsies performed 7 days a week, including major holidays
- Daily autopsy docket varies from as few as 6 (unusual) to as many as 20 decedents
- In addition to assisting with autopsies, technicians also perform the following: photographs, personal effects inventories, evidence collection, evidence processing and documentation, CT examination, toxicology collection and processing, culture and other testing collection, etc.

Forensic Anthropology

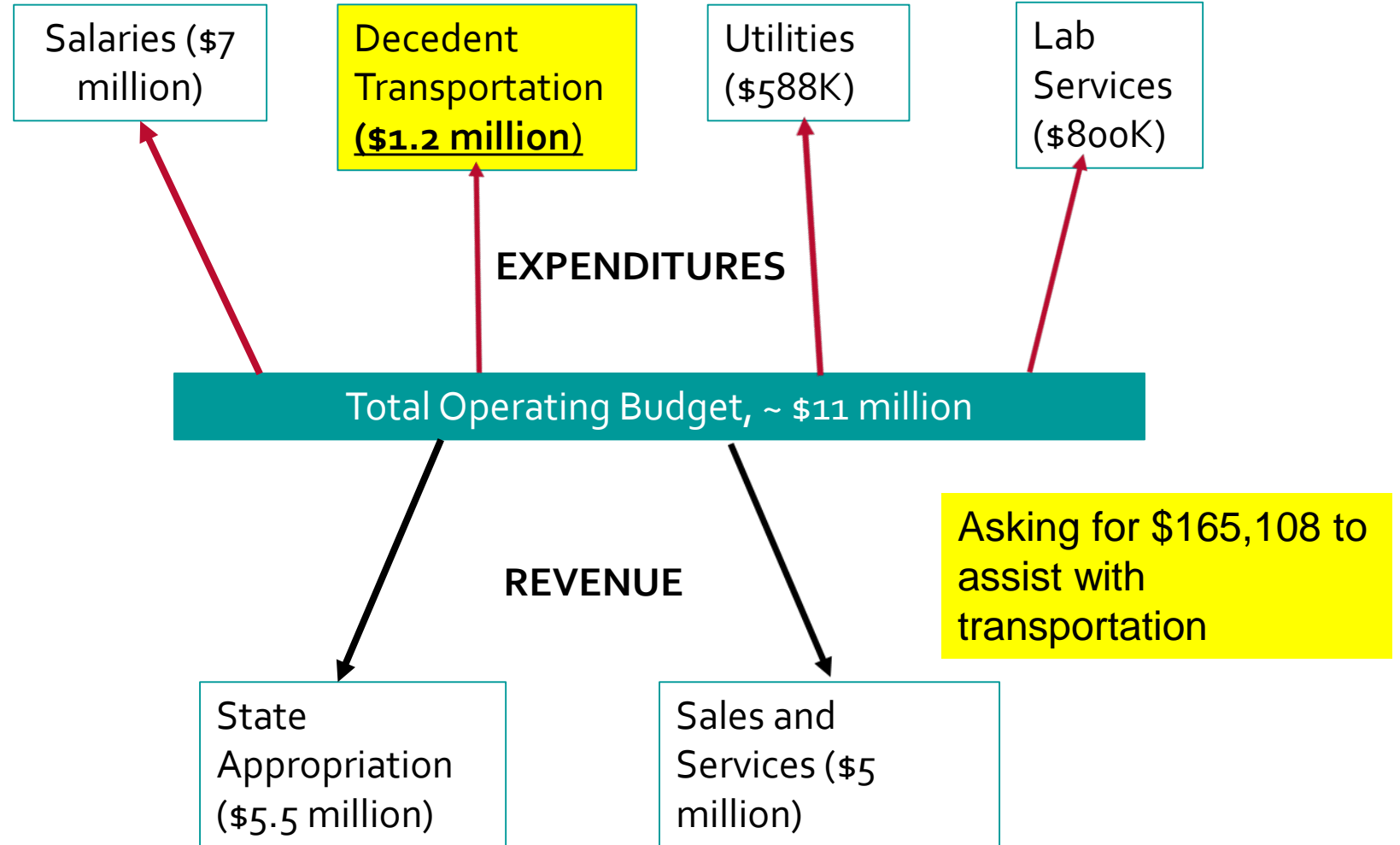


Dr.
Heather
Edgar

- Current anthropologist is ½ time with OMI (remaining ½ time is with UNM)
- Need a second ½ time anthropologist due to
 - 1.) Case Volume
 - 2.) Sharing responses to grave recovery
 - 3.) Potential for forensic anthropology fellowship



OMI's Total Operating Budget



Non-pending toxicology

- What is non-pending toxicology? Toxicological testing that OMI performs, where the cause of death is not due to drugs or alcohol
- OMI is not obligated to perform toxicology in these circumstances
- Why should OMI continue to perform non-pending toxicology? The data provided from these cases (suicides, motor vehicle collisions, homicides, accidental deaths) is valuable for epidemiological purposes, and is used by other state agencies, including the judicial system

Summary

- Currently, NM demonstrates high rates of violent deaths (suicide and homicide) and deaths due to opiates
- Increased volume and costs due to the COVID-19 pandemic
- OMI is an essential state agency, with state mandated duties, with approximately half of its operating budget allocated by the state funding
- Asking for 6% reinstatement of the budget cut, with the focus to hire first responder staff

Thank you for your support