HENNEPIN COUNTY minnesota

# Hennepin County Medical Examiner

Annual Report for 2019











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## Hennepin County Medical Examiner

## Mission

To investigate and determine cause and manner of death in all cases within the jurisdiction of the office in compliance with Minnesota statutes, and to advance the knowledge of death investigative professionals and partnering agencies through training and education to improve health, safety and quality of life.

## Vision

The Medical Examiner envisions a standard of excellence whereby death investigative professionals conduct thorough, accurate death investigations by harnessing innovative technologies and solutions in a regional office that serves a diverse population with timely, accurate and compassionate investigations run by professional staff equipped with state-of-theart technology and resources.

# Welcome

On behalf of the Hennepin County Medical Examiner's Office, I want to thank you for your interest in our 2019 annual report. This report reflects a statistical breakdown of the total caseload of our three-county service area — Hennepin, Dakota, and Scott counties — and includes referral autopsies from additional partners throughout Minnesota and Wisconsin.

The Hennepin County Medical Examiner's Office is accredited by the National Association of Medical Examiners and administers an Accreditation Council for Graduate Medical Education approved fellowship program in forensic pathology.

In 2019, we spent a considerable amount of time in planning for the new Hennepin County Medical Examiner's Facility. We worked collaboratively with the City of Minnetonka in preparation for land use approval. We shared a respect for the site's beauty and amenities, choosing to preserve the natural setting of the property and integrate the facility design with the location. We watched as input from our employees during the planning process was transformed into floor plans and design renderings. We started discussions about technologies, such as integrating CT scanning into our daily caseload processes, that will optimize our productivity once in the new facility. Throughout the process, we maintained a strategic focus on ergonomics and process efficiencies to ensure we can serve our residents and retain the best talent in the field long into the future.

We are proud of our work with tissue donation partners and of the positive impact tissue donation has in our community.We have a special focus on our work with donation in this report.

I invite you to learn more about our office as highlighted in the pages that follow.



Respectfully,

Andrew Baker, MD

Chief Medical Examiner of Hennepin, Dakota and Scott counties.



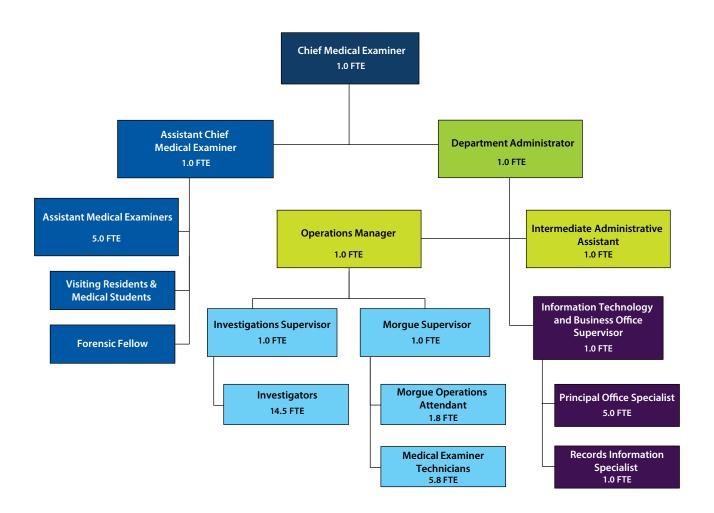




# Jurisdiction Map

The Hennepin County Medical Examiner's Office has jurisdiction to investigate all sudden or unexpected deaths in Hennepin, Davton Rogers Dakota and Scott counties. Hennepin Champlin Hanov Brooklyn Osseo Park Corcoran Population by Brookly Rockford Maple Grove Cente Greenfield county (2019) Loretto New Hope Crystal Medina Plymouth Independence rystal Antho - Scott 149,013 Maple Plain Robbinsdal Golden Lake Long Lake Wayzata Valley sta Orono Wayzata Woodland Minnetonka Beach Minnetrista - Dakota 429,021 St. Louis Minr Park Deepha Mound – Hennepin 1,259,428 Fort Lilydale Snelling Mendota (unorg.) Mendota Sunfish St. Paul St Tonka Bay Bonifacius Minnetonka Edina Chanhassen Heights Lako Eden Prairie Area by county Bloomingtor Dakota Grove Eagar in square miles Jackson Twp. Burr Savage Nininger - Scott 368 Apple Quisville Rosemount Twp. Hastings Ravenna Scott Valley Twp Coate Prior Lake Twp. – Dakota 587 Empire Twp. Credit Sand River Lakeville Vermillion Marshan Twp an Creek Twp. - Hennepin 607 Spring Lake Twp. Lawrene Twp. Vermillion Farmington Twp Twp. Belle Plaine New Marke Twp. Hampton New Belle Plaine Cedar Eureka Twp. Castle Miesville Helena Twp Trier Number of cities Blakeley Lake Rock Twp Elko New Market Twp. Twp. Hampton Douglas Twp. Twp New Twp. by county Randolph Randolph Greenvale Waterford Twp. Twp. Sciota Twp Scott Twp. Northfield 7 cities and multiple townships and unincorporated communities Dakota 21 cities and multiple townships and unincorporated communities Hennepin 45 cities and 1 unorganized territory (Fort Snelling) State of Minnesota Scott Ta Andrew M. Baker, M.D., Chief Medical Examiner of Hennepin, Dakota and Scott counties.

# Organizational Chart



#### 2019 41.1 Full-Time Equivalent (FTE) positions

Note: Students and limited duration are not included in the total FTE count.

## Medical Examiner's Office Adopted Budget — 2019

The Medical Examiner is responsible for investigation of all known or suspected homicides, suicides, accidental deaths, drug related deaths, medically unattended deaths, and deaths which might constitute a threat to public health and safety that occur under the Hennepin County Medical Examiner's jurisdiction. This jurisdiction includes the counties of Hennepin, Dakota and Scott. The office is also required to investigate the deaths of all persons dying in counties under the jurisdiction of the Medical Examiner who are to be cremated. The goal of the Medical Examiner is to assist families, law enforcement agencies, and the legal system by determining a scientifically unbiased and logical cause and manner of death.

Budget Summary	2017 Actual	2018 Budget	2019 Budget
Budgeted Property Tax Requirement*	\$3,969,781	\$4,281,474	\$4,979,129
Other Taxes	0	0	0
Federal	0	0	0
State	0	0	0
Local	1,511,894	1,571,810	1,564,298
nvestment Earnings	0	0	0
Fees for Services	121,975	121,975	121,975
Fines and Forfeitures	0	0	0
Licenses and Permits	411,595	400,000	410,000
Other Revenue	227,674	235,000	235,000
Other Financing	0	0	0
Total Revenues	\$6,242,919	\$6,610,259	\$7,310,402
Personal Services	\$4,740,940	\$4,907,668	\$5,811,819
Commodities	80,955	103,547	94,700
Services	1,382,423	1,435,844	1,338,783
Public Aid Assistance	0	0	0
Capital Outlay	0	0	0
Other Charges	101,526	163,200	65,100
Grants	0	0	0
	\$6,305,844	\$6,610,259	\$7,310,402

\* Reflects the adjusted property tax requirement budget, not actual property tax collections.

## Facility Planning



### Planning for the New Medical Examiner Facility Continues in 2019

The new facility will enhance our mission of providing families and communities with high quality death investigation and autopsy services. It provides space for training and infrastructure to support local, regional, and state mass fatality preparedness. Our education mission will provide a learning environment for those pursuing careers in forensic science.

This year the project focused on condensing years of planning into the creation of construction documents that would be ready for bid by the end of the by the end of 2019. The location was chosen at a 165-acre site of the Hennepin County Home School in the City of Minnetonka.

The original building site was on the east side of the property, but the planning process brought forward some challenges with this location. These challenges were addressed when the building site was moved to the west side of the property. This strategic relocation resolved many challenges, including easements for wetland mitigation, a slope variance for construction of the road to the building, and multiple road access challenges from County Road 62. On October 7, 2019, the Minnetonka City Council voted unanimously to approve the project and had many good things to say about the collaborative effort of Hennepin County, the Medical Examiner's Office, the design team at Leo A Daly, and the City of Minnetonka planning group. The facility is scheduled for completion in December of 2021.

## Connect to Purpose— Organ, Tissue and Eye Donation

The Hennepin County Medical Examiner's Office (HCME) has worked closely with our partners in donation for more than 20 years approving and facilitating organ, tissue and eye donation. This vitally important work provides the necessary organs and tissues for live-saving and lifeenhancing transplants.

From the year 2000 to 2019, the Hennepin County Medical Examiner's Office saw an increase in the number of donor referrals, resulting in an increase from 42 donations in 2000 to 933 donations in 2019. This large increase is due to several factors, but most importantly due to the mission of the HCME staff to refer all eligible donors, a streamlined referral process, the formation of a Donor Committee and the collaboration with the donor partners to provide all necessary information to the Medical Examiner physicians to allow for release of tissue to maximize every possible gift.

It was an honor for Jackie and the office to be recognized. Jackie presented information about our program at the AATB annual conference in September 2019

In addition, HCME received recognition for its contributions to eye donation at the 2019 Minnesota Lions Vision Foundation "Thanksgiving for Vision." The high referral and donor rate provided valuable tissue for transplant and for research into preventing and curing vision loss. One of the most important aspects about donation is the impact it can have on the donor family. Understanding and comforting families who experienced great loss and learning about those who received the gift of life bring into focus the real impact of donation. This connects to the work purpose that is done daily by our staff. Everyone at HCME recognizes that the pain of a difficult or unexpected loss does not have to be a family's final memory. Providing the opportunity for donation is honoring the wishes of the donor, helping families find hope and healing during a time of loss, and supporting the community.



Morgue Supervisor Jackie was recognized in 2019 by the American Association of Tissue Banks (AATB) and received a national award for Outstanding Professional Communication for her ongoing support of donation by optimizing and evaluating processes to ensure no donation referral opportunities were missed. She also facilitated HCME staff education to highlight the impact of donation.

## Donation Committee

The positive impacts of eye and tissue donation continue to grow and become recognized. The HCME Interagency Procurement Committee is doing all that it can to continue to enable the deceased to help the living. Through this, families are also positively impacted as the process can help in grieving the loss of their loved ones.

The committee meets quarterly to ensure that agencies work together to address problems, and to ensure that processes run efficiently. This committee includes staff from the technician, physician and investigative teams and representatives from donor agencies: American Donor Services, American Tissue Services Foundation, LifeSource and Lions Gift of Sight. At these meetings, goals are made, data are scrutinized, and any issues are discussed. Coordinating donation involves everyone at the Medical Examiner's Office and we all recognize the important role we play in making it happen. Over the past year, the group has made many positive impacts that have affected the outcome of eye and tissue donation. 2019 saw a record number of donation referrals to our donor agency partners.

Several years ago, our office created a portal that streamlines communication between all groups. Investigators can make a referral through the secure portal, which provides the donation agency with pertinent information to help them make decisions on whether a decedent is a potential candidate for donation. Each year, small changes have been made to make this tool even more operative.

We were able to update our hospice forms to allow donation agencies to have the important conversations with families about their deceased loved one's potential to be a donor. Previously, this was something that hospice nurses would discuss prior to death. Through work done by the committee, it was learned that these conversations were not always taking place and could be more impactful if done by a trained professional after



the death occurred. This change has had a direct impact on eye donation, and not a small one. Each year of implementation has increased the number of eye donors by about 308 donors.

Another piece of coordination involves funeral homes. The committee conducted a small study about hurdles that funeral directors were facing when it came to donation. By tracking statistics and specific issues, communication was enabled with specific funeral homes and some of these difficulties were able to be resolved.

This evidence shows that the work the committee has done is both important and impactful. Those of us on the committee are excited about future engagements next year!

# Functions of the Medical Examiner

#### Receiving death reports

When a reportable death occurs, the Medical Examiner's Office gathers pertinent data, including the person's name, address, age, sex, race, marital status, next of kin, a summary of medical history, physical findings, and name of last attending physician.

#### Preserving evidence

At the location of the death, the Medical Examiner Investigator takes custody and arranges transport of the body, personal property and associated evidence.

#### Deciding jurisdiction

The Medical Examiner decides who has jurisdiction to investigate the death, and reserves the right to accept or decline jurisdiction. If the person died from natural causes and has seen an attending physician within 120 days, the office usually declines jurisdiction. If the office accepts jurisdiction, or if the death is due in part to an injury, the Medical Examiner must sign the death certificate.

# Facilitating tissue, eye and organ donation

The Medical Examiner must receive notification and provide authorization before any agency arranges to recover an organ, tissues or eyes.

#### Performing autopsies

The Medical Examiner determines whether state interest compels an autopsy to answer medical and legal questions in the public interest, to protect public health, or to address a question of law. Families have the right under state law to object to an autopsy under some circumstances.

#### Determining cause and manner of death

The Medical Examiner assists families, law enforcement agencies, and the legal system by determining a scientifically unbiased and logical cause and manner of death. In many cases, family members benefit from the information derived from a death investigation and autopsy.

#### Managing public and private information

Basic demographic information and the cause and manner of death are matters of public record under Minnesota law (Minnesota Statute §13.83). The Medical Examiner treats the rest of the information as confidential and gives it the same discretion as a medical record.

In homicide cases, the Medical Examiner provides information and autopsy reports only to the law enforcement agencies investigating the death and to the prosecutor in the county where the homicide occurred.

# Types of Reportable Cases

Deaths that meet certain criteria in Hennepin, Dakota or Scott County must be reported, including all sudden or unexpected deaths and all deaths that may be due entirely, or in part, to any factor other than natural disease. These include:

- 1. Unnatural deaths, including violent deaths arising from homicide, suicide, or accident;
- 2. Deaths due to a fire or associated with burns or chemical, electrical, or radiation injury;
- 3. Unexplained or unexpected perinatal and postpartum maternal deaths;
- 4. Deaths under suspicious, unusual or unexpected circumstances;
- Deaths of people whose bodies are to be cremated or otherwise disposed of in such a manner that the bodies will later be unavailable for examination;
- 6. Deaths of inmates of public institutions and people in custody of law enforcement officers, who have not been hospitalized primarily for organic disease;
- Deaths that occur during, in association with, or as the result of diagnostic, therapeutic, or anesthetic procedures [these include operating room deaths];
- 8. Deaths due to culpable neglect;
- 9. Stillbirths of 20 weeks or longer gestation, not attended by a physician;
- 10. Sudden deaths of people not affected by recognizable disease;
- 11. Unexpected deaths notwithstanding a history of underlying disease;
- 12. Deaths in which a fracture of a major bone such as a femur, humerus, or tibia has occurred within the past six months;
- 13. Deaths not attended by a physician, occurring outside of a licensed health care facility or licensed residential hospice program;

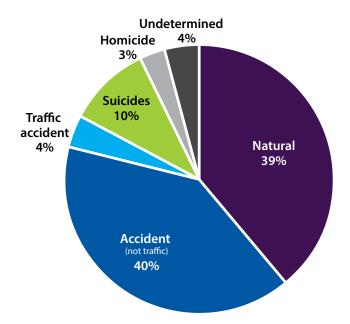
- 14. Deaths of people not seen by their physician within the past 120 days;
- 15. Deaths occurring in an emergency department;
- 16. Stillbirths or deaths of newborn infants in which there has been maternal use of or exposure to unprescribed controlled substances, including street drugs, or in which there is history or evidence of maternal trauma;
- 17. Unexpected deaths of children;
- 18. Solid organ donors;
- 19. Unidentified bodies;
- 20. Skeletonized remains;
- 21. Deaths occurring within 24 hours of arrival at a health care facility, if death is unexpected;
- 22. Deaths associated with the decedent's employment;
- 23. Deaths of nonregistered hospice patients or patients in unlicensed hospice programs; and
- 24. Deaths attributable to acts of terrorism.

## 2019 Aggregate Data: Total, Hennepin, Dakota, and Scott Counties:

	Total	Hennepin	Dakota	Scott
Total Cases	7,990	6,022	1,519	405
Jurisdiction Accepted	2,281	1,841	343	97
Jurisdiction Declined	5,333	3,855	1,170	308
Referral Cases	37			
Jurisdiction Accepted	2,281	1,841	343	97
Naturals	879	687	155	37
Accidents (not traffic)	911	752	120	39
Traffic Accidents	91	70	15	6
Suicides	234	184	38	12
Homicides	69	67	2	0
Undetermined	97	81	13	3
Total Medical Examiner Autopsies	1,303	1,036	182	52
HCME Autopsies (not including HCMC autopsies)	1,220	998	171	51
Autopsies at Other Institutions (JA cases)	16	14	2	0
Partial Autopsies (not including HCMC autopsies)	25	17	8	0
External examinations	30	25	4	1
Referral Autopsies	33	92	0	0
HCME-HCMC Inpatient Autopsies	45	45	0	0
HCME-HCMC ER Autopsies	92	92	0	0
Total Donations	1,166	870	239	53
Eyes	923	687	189	44
Tissue/Bone (ME & hospital referred)	223	99	47	7
Organs	25	25	0	0
Scene Visits by Investigators	1,558	1,207	286	65
Cremations Approved	9,287	7,343	1,512	432
Subpoenas Answered	83	61	14	2
Bodies Transported	1,971	1,844	345	98
Hospice Deaths	4,190	2,975	975	232

## Jurisdiction Accepted Cases by Manner of Death: Hennepin, Dakota, and Scott Counties 2019

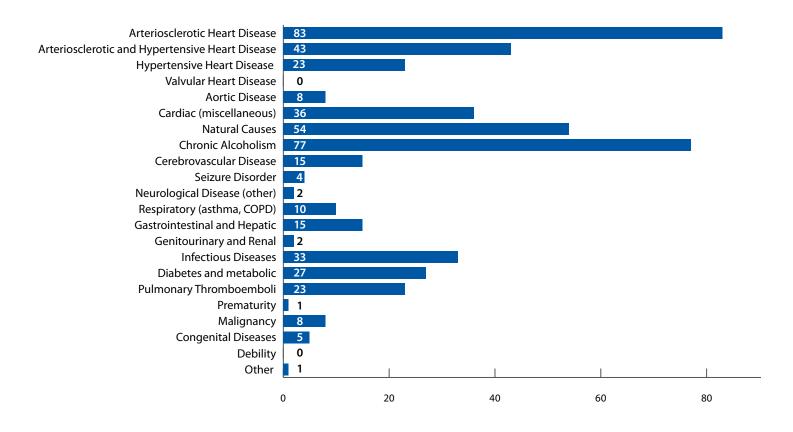
			Hen	nepin	Da	kota	Sco	ott
	Total	by %	total	by %	total	by %	total	by %
Jurisdiction Accepted	2,281		1,841	81%	343	16%	97	4%
Natural	879	39%	687	78%	155	17%	37	5%
Accident (not traffic)	911	40%	752	83%	120	15%	39	4%
Traffic Accident	91	4%	70	77%	15	10%	6	5%
Suicides	234	10%	184	79%	38	21%	12	5%
Homicide	69	3%	67	97%	2	4%	0	4%
Undetermined	97	4%	81	84%	13	9%	3	1%



## Natural Deaths: Hennepin, Dakota, and Scott Counties 2019

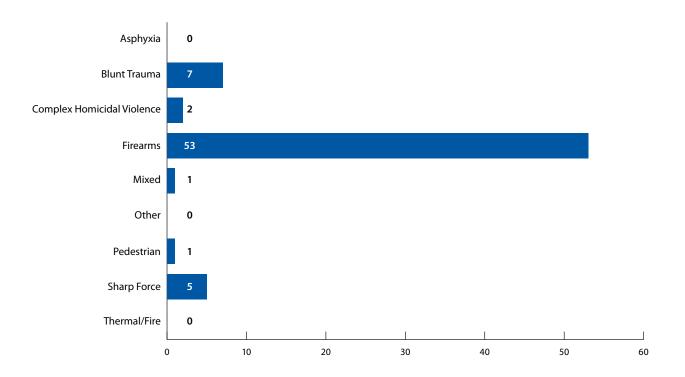
	Exam	(full or partia	al)		No Exam		Total (E	xam + No Exa	ım)	
Natural	Hennepin	Dakota	Scott	Hennepin	Dakota	Scott	Hennepin	Dakota	Scott	Total
Arteriosclerotic Heart Disease	61	18	4	2	1	0	63	19	4	86
Arteriosclerotic and Hypertensive Heart Disease	35	6	2	0	0	1	35	6	3	44
Hypertensive Heart Disease	15	6	2	1	1	0	17	7	2	25
Valvular Heart Disease	0	0	0	0	0	0	0	0	0	0
Aortic Disease	8	0	0	1	0	0	9	0	0	9
Cardiac (miscellaneous)	24	8	4	4	0	0	28	8	4	40
Natural Causes	45	9	0	263	66	15	308	75	15	398
Chronic Alcoholism	65	10	2	8	0	0	73	10	2	85
Cerebrovascular Disease	13	0	2	8	1	0	21	1	2	24
Seizure Disorder	2	2	0	0	0	0	2	2	0	4
Neurological Disease (other)	1	0	1	3	1	0	4	1	1	6
Respiratory (asthma, COPD)	10	0	0	1	3	0	11	3	0	14
Gastrointestinal and Hepatic	13	1	1	1	0	0	14	1	1	16
Genitourinary and Renal	1	1	0	1	0	0	2	1	0	3
Infectious Diseases	27	5	1	3	0	1	30	5	2	37
Diabetes and Metabolic	20	6	1	4	2	0	24	8	1	33
Pulmonary Thromboemboli	21	2	0	0	0	0	21	2	0	23
Prematurity	1	0	0	0	0	0	1	0	0	1
Malignancy	7	1	0	7	2	0	14	4	0	17
Congenital Diseases	5	0	0	0	0	0	5	0	0	5
Debility	0	0	0	1	1	0	1	1	0	2
Other	1	0	0	1	0	0	2	0	0	2
Total	375	75	20	309	78	17	685	154	37	876

### Natural Deaths (full or partial exam): Hennepin, Dakota, and Scott Counties 2019



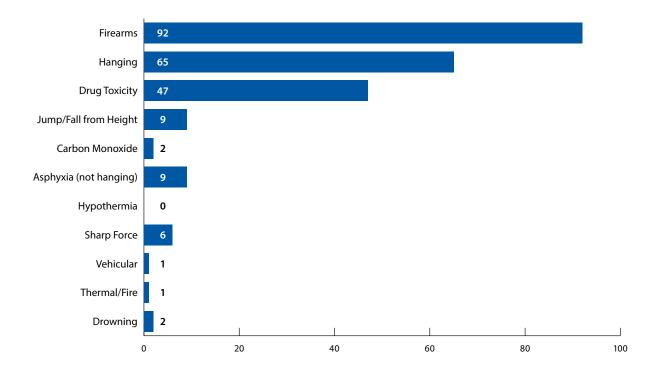
### Homicide Deaths: Hennepin, Dakota, and Scott Counties 2019

	Hennepin	Dakota	Scott	TOTAL
Asphyxia	0	0	0	0
Blunt Trauma	7	0	0	7
Complex Homicidal Violence	2	0	0	2
Firearms	51	2	0	53
Mixed	1	0	0	1
Other	0	0	0	0
Pedestrian	1	0	0	1
Sharp Force	5	0	0	5
Thermal/Fire	0	0	0	0
TOTAL	67	2	0	69



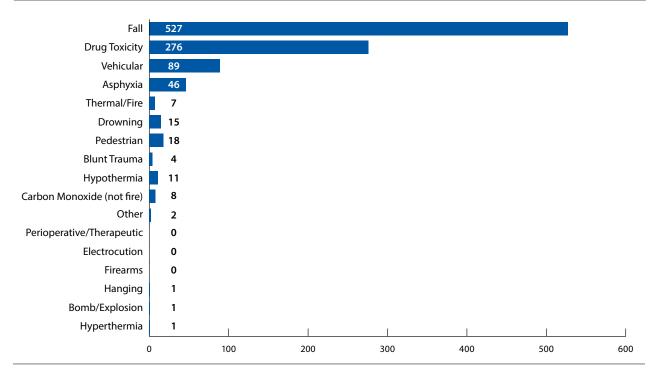
## Suicide Deaths: Hennepin, Dakota, and Scott Counties 2019

	Hennepin	Dakota	Scott	TOTAL
Firearms	69	16	7	92
Hanging	54	11	0	65
Drug Toxicity	37	7	3	47
Jump/Fall from Height	9	0	0	9
Carbon Monoxide	0	1	1	2
Asphyxia (not hanging)	9	0	0	9
Hypothermia	0	0	0	0
Sharp Force	2	3	1	6
Vehicular	1	0	0	1
Thermal/Fire	1	0	0	1
Drowning	2	0	0	2
TOTAL	184	38	12	234



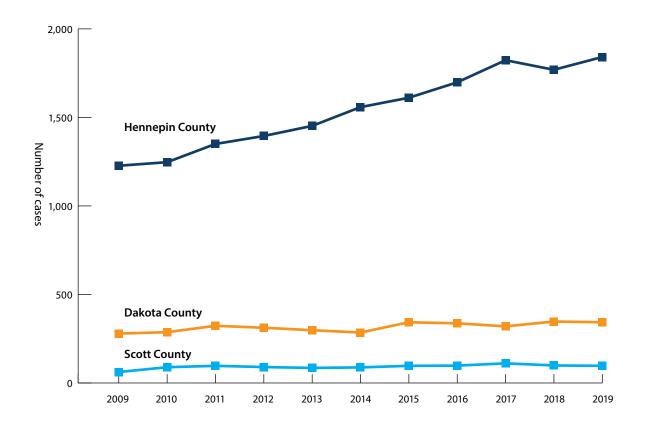
### Accident Deaths: Hennepin, Dakota, and Scott Counties 2019

	Hennepin	Dakota	Scott	TOTAL
Fall	422	80	25	527
Drug Toxicity	243	23	10	276
Vehicular	70	13	6	89
Asphyxia	33	11	2	46
Thermal/Fire	7	0	0	7
Drowning	13	1	1	15
Pedestrian	16	2	0	18
Blunt Trauma	3	0	1	4
Hypothermia	7	4	0	11
Carbon Monoxide (not fire)	7	1	0	8
Other	2	0	0	2
Perioperative/Therapeutic	0	0	0	0
Electrocution	0	0	0	0
Firearms	0	0	0	0
Hanging	1	0	0	1
Bomb/Explosion	0	1	0	1
Hyperthermia	0	1	0	1
TOTAL	824	137	45	1,006



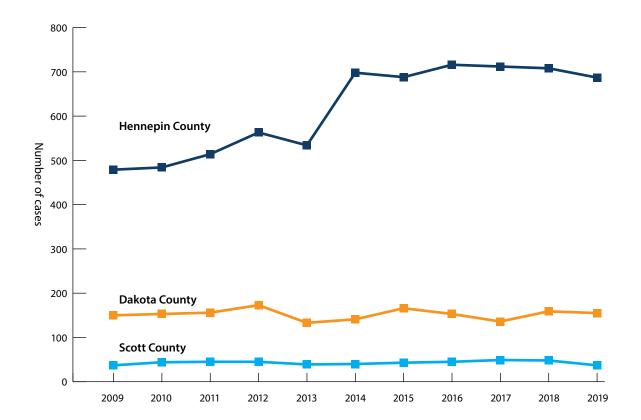
## Cases Accepted 2009–2019: Hennepin, Dakota, and Scott Counties 2019

Year	Hennepin	Dakota	Scott
2009	1,227	279	62
2010	1,247	287	89
2011	1,350	323	97
2012	1,395	312	90
2013	1,452	298	85
2014	1,558	285	88
2015	1,611	343	97
2016	1,698	337	98
2017	1,823	320	111
2018	1,769	347	99
2019	1,841	343	97



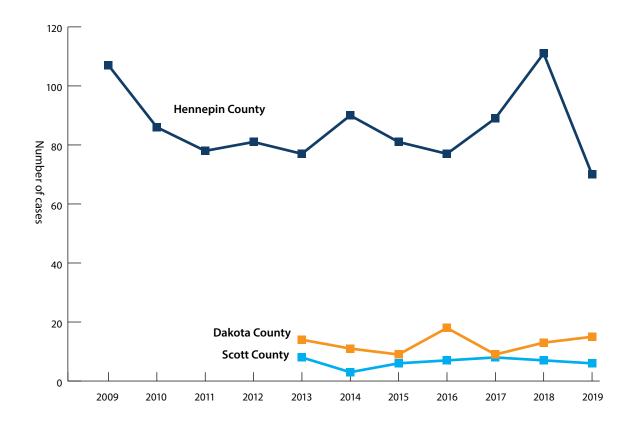
## Natural Deaths 2009–2019: Hennepin, Dakota, and Scott Counties 2019

Year	Hennepin	Dakota	Scott
2009	479	150	37
2010	484	153	44
2011	514	156	45
2012	563	173	45
2013	534	133	39
2014	698	141	40
2015	688	166	43
2016	716	153	45
2017	712	136	49
2018	708	159	48
2019	687	155	37



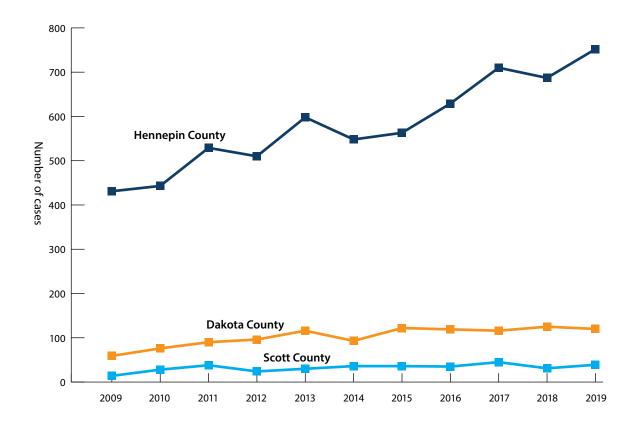
### Traffic Accident Deaths 2009–2019: Hennepin, Dakota, and Scott Counties 2019

Year	Hennepin	Dakota	Scott
2009	107	-	-
2010	86	-	-
2011	78	-	-
2012	81	-	-
2013	77	14	8
2014	90	11	3
2015	81	9	6
2016	77	18	7
2017	89	9	8
2018	111	13	7
2019	70	15	6



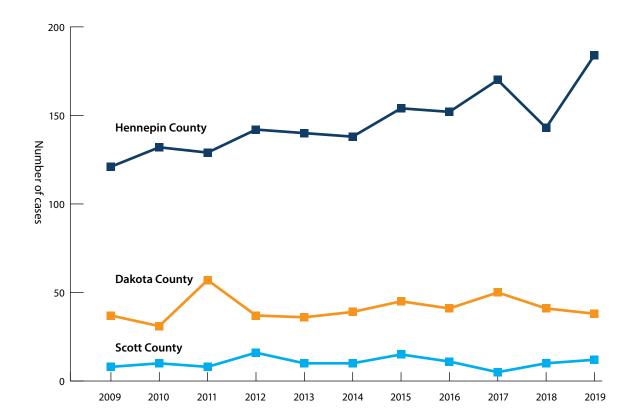
## Accident (Non-Traffic) Deaths 2009–2019: Hennepin, Dakota, and Scott Counties 2019

Year	Hennepin	Dakota	Scott
2009	431	59	14
2010	443	76	28
2011	529	90	38
2012	510	96	24
2013	598	116	30
2014	548	93	36
2015	563	122	36
2016	629	119	35
2017	710	116	45
2018	687	125	31
2019	752	120	39



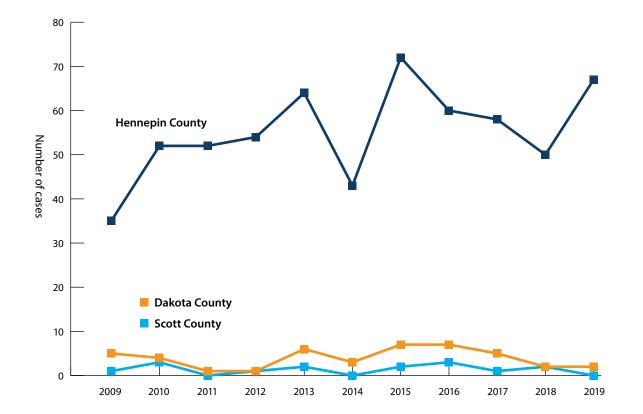
## Suicide Deaths 2009–2019: Hennepin, Dakota, and Scott Counties

Year	Hennepin	Dakota	Scott
2009	121	37	8
2010	132	31	10
2011	129	57	8
2012	142	37	16
2013	140	36	10
2014	138	39	10
2015	154	45	15
2016	152	41	11
2017	170	50	5
2018	143	41	10
2019	184	38	12



## Homicide Deaths 2009–2019: Hennepin, Dakota, and Scott Counties

Year	Hennepin	Dakota	Scott
2009	35	5	1
2010	52	4	3
2011	52	1	0
2012	54	1	1
2013	64	6	2
2014	43	3	0
2015	72	7	2
2016	60	7	3
2017	58	5	1
2018	50	2	2
2019	67	2	0





Hennepin County Medical Examiner

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Andrew M. Baker, M.D., Chief Medical Examiner of Hennepin, Dakota and Scott counties