



OFFICE OF THE CHIEF MEDICAL EXAMINER

Edwin M. Lee, Mayor

Michael D. Hunter, M.D.
Chief Medical Examiner

Christopher J. Wirowek
Director of Operations

September 19, 2017

Supervisor Arron Peskin
Office of Supervisor Aaron Peskin, District 3
City Hall, Room 282
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Re: OCME Response to Sept 12 Letter of Inquiry

Dear Supervisor Peskin,

Please find enclosed the response from the Office of the Chief Medical Examiner to questions outlined in your letter of inquiry pertaining to heat-related deaths occurring during the Labor Holiday, September 1-3, 2017.

As previously discussed with your legislative aide, Ms. Beth Rubenstein, the Director of Operations has a previously scheduled arbitration hearing with the City Attorney on September 20, during your scheduled hearing. At this time, no changes have been made to the previously scheduled arbitration meeting, however if changes occur during the course of tomorrow's events the Medical Examiner's Office will be present for the hearing discussion. Lastly, the City Administrator's Office will have a representative present for the course of discussion if needed.

Respectfully,

A handwritten signature in blue ink, appearing to read "C. Wirowek", with a long horizontal flourish extending to the right.

Christopher J. Wirowek, Star #101
Director of Operations

Enclosure

Hall of Justice • 850 Bryant Street • San Francisco, CA 94103-4603 • Phone (415) 553-1694 • Fax (415) 553-1650

ACCREDITED NATIONAL ASSOCIATION OF MEDICAL EXAMINERS
ACCREDITED BY THE AMERICAN BOARD OF FORENSIC TOXICOLOGY

Appendix F: Office of the Medical Examiner

What is the definition of deaths caused by heat?

Exposure for a significant amount of time to an environment with elevated temperatures, whether natural or man-made, these increased temperatures lead to or contribute to one's death.

Is there a list of types of deaths that fall under this specific category, (i.e. heat stroke, conditions exacerbated by extreme heat, etc.)?

Extreme natural heat poses a public health problem because it may result in heat-related illness (e.g., heat cramps, heat exhaustion, heat syncope, and heat stroke) and heat-related death. The group of mentioned conditions is a list of possible symptoms suggesting prolonged exposure to extreme elevated heat conditions.

According to DPH's website home page, vulnerable residents during a heat wave include, "people taking medications that affect their body's ability to stay hydrated and respond to heat. This includes: medication used to treat high blood pressure and heart problems (beta-blockers, diuretics), those used to reduce allergy symptoms (antihistamines), those used to calm you (tranquilizers), those used to reduce psychiatric symptoms such as delusions (antipsychotics) and other medications that disrupt the regulation of body temperature." How are deaths of people taking these sorts of medications categorized during a heat wave?

Exposure to extreme natural heat also may result in death because it may exacerbate an individual's preexisting chronic conditions (e.g., cardiovascular, cerebral, and respiratory diseases), and because patients receiving the aforementioned listed drug treatment for disorders very well may affect the body's heat regulatory system and therefore are more susceptible to heat effects.

Each individual's body is different and a particular response to a specific drug medication is unique as the person consuming the specified drug and concentration level. If an individual is taking a drug cocktail of several different medications, this too may vary the individual's unique response to external environmental changes. Although medication analytes found within the decedent's body are individually considered when determining a decedent's Cause and Manner of death, the Chief Medical Examiner takes into consideration the totality of circumstances when determining the Cause and Manner of death. Typically deaths related to exposure due to naturally occurring elevated temperatures due to weather is mannered as Accident, given this determination has ruled out the possibility of Suicide, Homicide, and Natural circumstances.

Per the CDC, "Heat-related and cold-related causes of death may not be listed on the death certificate because of difficulties in making such diagnoses. Determination that a death is heat-related or cold-related requires knowledge of the decedent's core body temperature at the time of death or knowledge that the decedent was exposed to hot or cold ambient temperatures. Unless medical personnel are present at the death, core body temperature at time of death generally is not known. The person completing the death certificate may be unaware of extreme temperature exposures prior to death, particularly if the death occurs at home (e.g., if an elderly person dies at home and the home was underheated, this contributing cause may not be noted). Additionally, heat and cold may not be listed on

Office of the Chief Medical Examiner

the death certificate as contributing causes of death for deaths resulting from exacerbation of a preexisting medical condition.”

What was the death toll for SF County during the weekend of the heat wave (September 1-3) broken down by day, and by the neighborhood in which deaths occurred?

Deaths within CCSF by Place Found:				
	9/1/17	9/2/17	9/3/17	Total:
94102	1		1	2
94103		1	1	2
94107	1			1
94109	2	2	5	9
94110	1	2	3	6
94112	3	3	4	10
94114	5		1	6
94115	2	8	4	14
94116	6	2	4	12
94117		2	3	5
94121		2	3	5
94122	4	1	5	10
94123		1		1
94124	1		1	2
94127			1	1
94131	1	1	2	4
94132		1	2	3
94133	1		2	3
94134	3		1	4
94158	1		1	2
BAY WATERS		1		1
Total:	32	27	44	103
Medical Examiner Jurisdiction Accepted	4	5	4	13

Office of the Chief Medical Examiner

Given that we typically have hot weather in September, how many deaths have been reported on a Friday, Saturday, Sunday of an early September weekend over the last five years? Please break down this data by day, and by the neighborhood in which the deaths occurred.

Following chart includes all deaths reported to the OCME where jurisdiction was accepted.

See Excel file attachment

CCSF Deaths for Yrs 2013-17	Column Labels						
Date of Death	94102	94103	94109	94110	94112	94114	94115
9/6/2013	1						
9/7/2013		1		2			
9/8/2013			2				
9/13/2013			2				
9/15/2013			1	1			
9/5/2014		1	1			2	
9/6/2014							1
9/7/2014			2				
9/12/2014							
9/13/2014	2		1				
9/14/2014		1	1	1			
9/4/2015		1	1				
9/5/2015			1			1	
9/11/2015		1	1				
9/12/2015	1						
9/13/2015			2				
9/2/2016	1		1				
9/3/2016				2			
9/4/2016							
9/10/2016							1
9/11/2016		1	1				
9/1/2017							
9/2/2017		1	1	1			
9/3/2017			1		1		1
9/8/2017							1
9/9/2017			3				1
9/10/2017			1				
Grand Total	5	7	23	7	1	3	5

94116	94117	94118	94122	94124	94131	94132	94133	Grand Total	
			1					2	
				1	2			6	
								2	
							1	2	
	1			1				3	
		1	1	1		1		6	
			1					5	
			1					3	
							2	2	
						1		4	
								3	
								2	
		1						2	
								3	
								1	
								2	
								2	
1								1	
				1				1	
				1				3	
				1				1	
1			1					5	
1				1				5	
	1							6	
							4	6	
							1	5	
			1					2	
3	2	2	5	6	2	2	3	5	81

