



MEMORANDUM

Date: August 11, 2020

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

A handwritten signature in black ink, appearing to be "CHH", is written over the printed name "C.H. Huckelberry".

Re: **Report from the Pima County's Chief Medical Examiner Regarding Deaths in Pima County and the Impact of the 2020 Viral Pandemic**

Attached is a report provided by Chief Medical Examiner Dr. Greg Hess regarding the questions his office has faced regarding deaths and whether deaths have increased solely because of COVID-19 in Pima County.

Dr. Hess' answer is that the matter is complicated and it is difficult to correlate the total number of increased deaths to the COVID-19 pandemic. The Medical Examiner's Office examines a number of deaths that occur in the County that are not classified as a natural death.

In summary, the findings of the Medical Examiner include the following:

- The total mortality in Pima County in 2020 increased 14.46 percent in comparison with the average in the previous three years.
- Deaths reported from Pima County to the Medical Examiner in 2020 increased 27.39 percent in comparison with the average in the previous three years (not all deaths in Pima County are reported to the Medical Examiner, in fact, approximately 29 percent of deaths were reported to the Medical Examiner over the last three years).
- Motor vehicle accident deaths in Pima County have not decreased in 2020. There was some thought that these deaths may have decreased due to the State's Stay at Home Order that significantly reduced traffic and travel on public highways.
- Suicide deaths in Pima County have not increased in 2020. There was also a thought that the Stay at Home Orders and the isolation caused by it could have increased the number of suicide deaths in Pima County. These deaths have not increased in 2020.
- Overdose deaths continue to comprise the single largest accidental manner of death category in 2020. This has been true for some time due to opioid related drug overdoses as well as overdoses related to other illicit drugs.

Attachment

c: Francisco García, MD, MPH, Deputy County Administrator & Chief Medical Officer,
Health and Community Services



OFFICE OF THE MEDICAL EXAMINER

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MEMORANDUM

TO: Chuck Huckelberry, County Administrator

VIA: Francisco Garcia, M.D., Deputy County Administrator *FG 8/10/20*

FROM: Gregory Hess, M.D., Chief Medical Examiner *G.H.*

RE: The 2020 Viral Pandemic (to date) and the Pima County Office of the Medical Examiner (PCOME)

DATE: August 5, 2020

The impact of the 2020 viral pandemic, to date, has presented some unique challenges.

Specifically for the PCOME, the principle effects are those of the volume of deaths reported, the impact of that volume on our operations and the myriad questions from multiple interested parties on what exactly this volume represents.

This is an attempt to quantify and explain as best as I am able in the attached documents. Some background into pre-pandemic deaths and OME operations is required to frame the current issue. Additionally, portions of the attached have been released in response to media queries and other requesting entities who are interested in this topic.

I broke this up into three parts. Part 1 – Death and Predictability is background and provides some insight into deaths reported and triaged through the OME. Part 2 – 2020 and the Viral Pandemic goes into more specifics about 2020 in comparison to the past three years. Part 3 – Morgue Operations focuses on how volume affects our morgue operations and the limitations of our facility.



Gregory L. Hess, M.D. Chief Medical Examiner

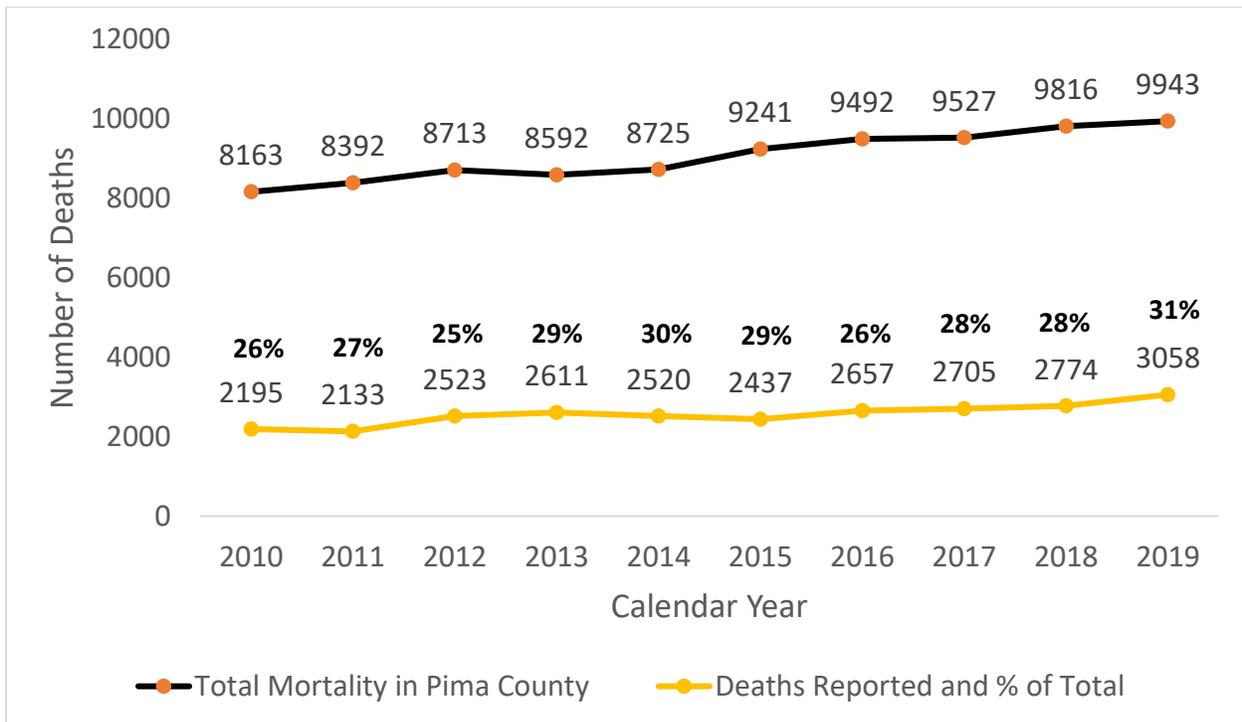
ATTACHMENT 1

Part 1 - Death and Predictability

When someone dies who gets reported to the Medical Examiner?

The percentage of deaths, in relation to all-cause mortality reported to the OME is predictable, repeatable and remarkably consistent. Not just internally to Pima County and the PCOME, but also in comparison to other jurisdictions like Maricopa County and the MCOME, despite the large difference in total mortality between Pima and Maricopa.

The following chart demonstrates the predictability of the number of deaths reported to the OME from Pima County.



Although there are small year-to-year fluctuations, 29% of total mortality was reported to the PCOME averaged over the last three years (2017-2019). *Why 29%? Who or what types of deaths are reported to the OME?* Deaths reportable to the OME are by Arizona Statute. Specifically A.R.S §11.593 B. In short, deaths that are sudden and unexpected with no known underlying cause and deaths that are thought to be unnatural such as overdoses, hangings, motor vehicle accidents, shootings, etc., are reported to the OME. Conversely, approximately 71% of all deaths are *not* reported to the OME and are certified by physicians in the community who may be treating a patient for a chronic medical condition and that patient subsequently dies as the result of that condition.

What happens to the deaths reported to the OME?

Basic information is gathered about the death being reported and a decision is made concerning whether or not we will accept jurisdiction. Accepting jurisdiction means accepting ownership for the death certification. Some deaths unequivocally fall under OME jurisdiction such as those

deaths that are clearly unnatural. Some deaths not so much. For example, a law enforcement officer may respond to a death in a home. The death may appear natural based on investigation of the scene, but it may not be immediately obvious who should be the responsible party to certify the death, and law enforcement officer might call the OME for guidance. In such circumstances, the OME may be able to find a community provider who was treating the decedent for a significant chronic medical condition, and the OME would decline jurisdiction. We term those deaths “JDs” or “Jurisdiction Decline”. For deaths in which we do accept jurisdiction, the OME will be certifying the death, rather than a community provider. We certify deaths in one of three ways.

- 1) Following an autopsy (“Autopsy”) – this is a postmortem examination involving both an internal and external examination. Common examples of deaths that we might conduct an Autopsy would be sudden unexpected deaths without medical history; many deaths due to injuries, deaths we suspect may be overdoses, etc.
- 2) Following an external examination (“External”) – this is a postmortem examination involving an external examination of the body only, without an internal examination. Common examples of Externals would be deaths following prolonged hospitalizations, certain devastating injuries, and some remains in advanced decomposition.
- 3) Following review of medical records (“DC” or “Death Certificate” case) – this is a record review only without physical viewing of the decedent. Common examples of DCs would be deaths from care facilities with injuries but copious medical documentation of those injuries such as slips and falls with hip fractures or head injuries in the elderly.

In summary, deaths reported to the OME are triaged into either deaths accepted or deaths declined. Deaths declined are termed JDs. Deaths accepted are sorted into either Autopsy, External or DC.

You just described how deaths reported are triaged. Is the triage predictable similar to how the number of deaths reported (~30% of total mortality) are predictable as outlined on the previous page?

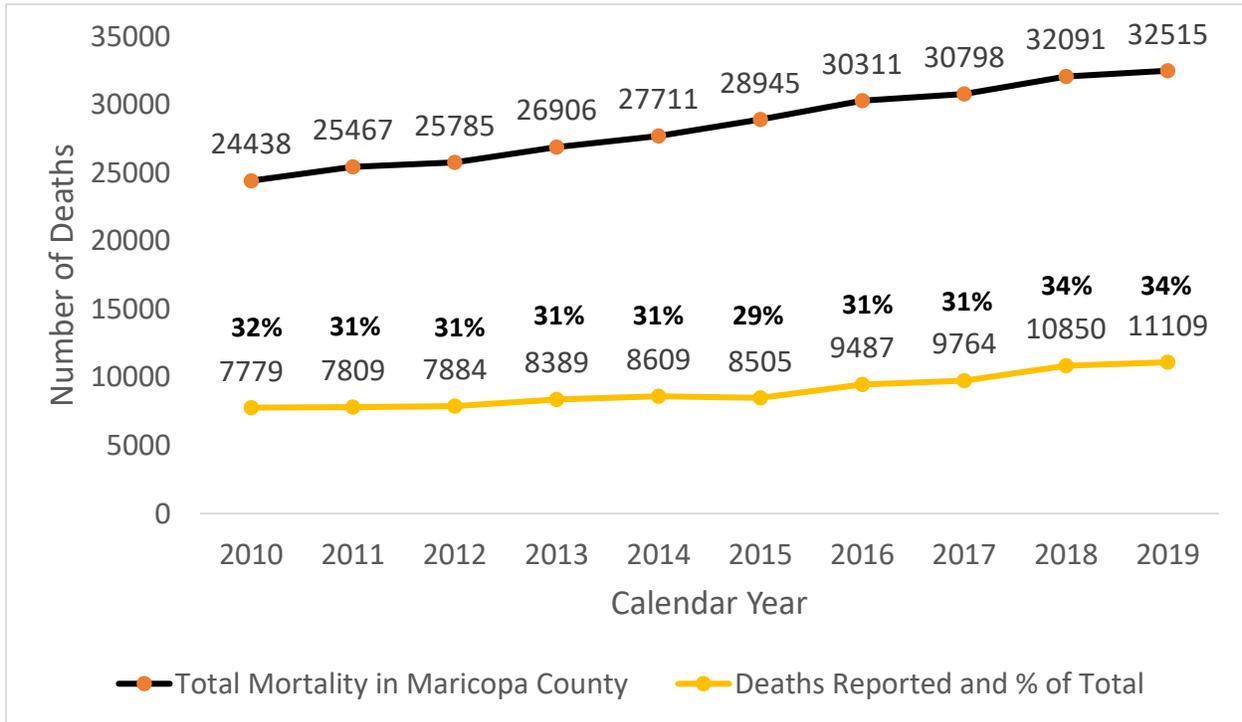
Yes, the triage is predictable. Let’s review the table for Pima County deaths below.

Year	Pima 2017	Pima 2018	Pima 2019
Total Mortality (TM)	9527	9816	9943
Reported	2705 (28% of TM)	2774 (28% of TM)	3058 (31% of TM)
Declined (JD)	1025 (38% of Reported)	1102 (40% of Reported)	1246 (41% of Reported)
Accepted	1680 (62% of Reported)	1672 (60% of Reported)	1812 (59% of Reported)
Autopsy	966 (58% of Accepted)	959 (57% of Accepted)	1075 (59% of Accepted)
External	352 (21% of Accepted)	394 (24% of Accepted)	419 (23% of Accepted)
DC	362 (22% of Accepted)	319 (19% of Accepted)	318 (18% of Accepted)

This is very consistent over time, with approximate averages of 30% of TM reported, 40% of reported declined, 60% of reported accepted, 60% of accepted autopsies, 20% of accepted externals, and 20% of accepted DCs. Remember the 30, 40, 60, 60, 20, 20. It will come up again.

You mentioned earlier that the PCOME’s percentages are similar to those in Maricopa County. How so?

Although Maricopa County experiences a much higher number of annual deaths, the percentage of total deaths reported to the MCOME and their triage percentages are similar to Pima’s. The following chart demonstrates the predictability of the number of deaths reported to the MCOME in Maricopa County.



The MCOME’s percentage of total reported is a bit higher (33.25%) averaged over the last three years (2017-2019) than the PCOMEs (29.15%) but let us see how this difference impacts the MCOME’s triage percentages. *Hint: it means they declined a slightly **higher** percentage and accepted a slightly **lower** percentage of deaths reported than the PCOME did in 2018 and 2019, secondary to an increased volume of non-jurisdictional calls.*

Year	Maricopa 2017	Maricopa 2018	Maricopa 2019
Total Mortality (TM)	30798	32091	32515
Reported	9764 (31% of TM)	10850 (34% of TM)	11109 (34% of TM)
Declined (JD)	3853 (39% of Reported)	4726 (44% of Reported)	4800 (43% of Reported)
Accepted	5911 (61% of Reported)	6124 (56% of Reported)	6300 (57% of Reported)
Autopsy	3509 (59% of Accepted)	3466 (57% of Accepted)	3500 (56% of Accepted)
External	1238 (21% of Accepted)	1530 (25% of Accepted)	1500 (24% of Accepted)
DC	1164 (20% of Accepted)	1128 (18% of Accepted)	1246 (20% of Accepted)

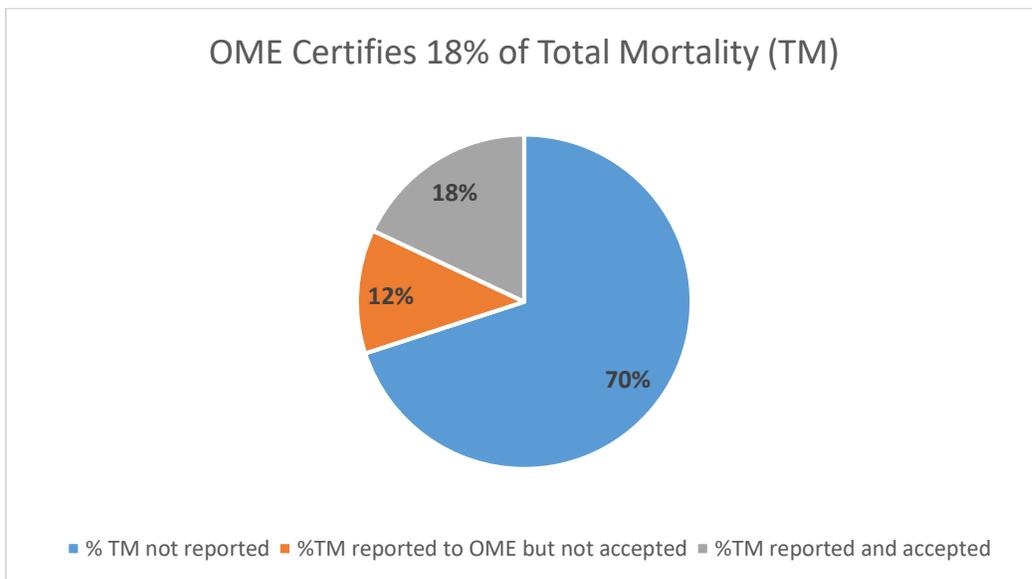
If we recall the 30, 40, 60, 60, 20, 20 from the Pima County triage discussion, one can see Maricopa has very similar percentages with a little wobble in 2018 and 2019 as a side effect from a slight increased percentage of total reported from JD calls in comparison with Pima.

We are four pages into this and you have not talked about 2020 and the pandemic yet. Why are you laying so much track prior to getting to the point?

A little insight into non-pandemic normalcy helps interpret what pandemic increased volume may or may not represent. It is also important to understand that the PCOME is not flipping coins or winging it in how remains are triaged through the investigation system. Although no one has control over who dies and when, experience and standardized (accredited) administrative structures help us predict what to expect in the future. That is why I wanted to draw attention to our similarities to Maricopa. Pima and Maricopa are the only fully accredited OMEs in Arizona, which explains the similarities to the approach in the triage of remains. Our approximately 60% autopsy average is at the national average for accredited offices. Should the volume of remains overwhelm one's infrastructure, then the previously explained triage percentages would change. Typically, this reflects in far fewer autopsies and far greater externals. With a basic understanding of Part 1, it is possible to look at any death investigation system in the Country and see where they are "at" concerning what they do with the decedents reported to them. We also use these types of metrics to determine expected costs charged to IGA Counties to provide them with OME services. Many of these Part 1 concepts are also important in understanding some of the issues I will bring up in Part 3 – Morgue Operations.

Part 1 Summary

- Deaths reported to the OME are comprised of a predicable percentage of all-cause mortality and are triaged in a predicable fashion
- Your friendly neighborhood Arizona OME certifies approximately 18% of total mortality in a given population. The OME *does not have* cause of death and other vital statistics information for approximately 82% of total mortality.



Math for chart: TM = 100%. Not reported to OME = 70%, reported = 30%. Accepted = 60% of reported or 18% of TM

ATTACHMENT 2

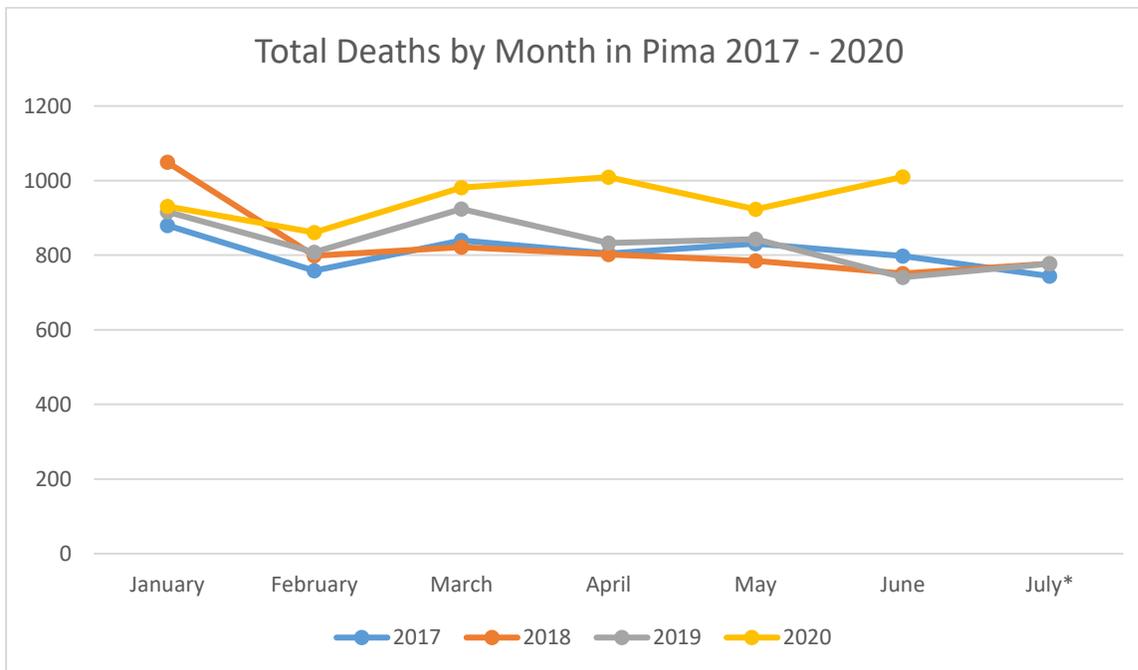
Part 2 – 2020 and the Viral Pandemic

What’s going on in 2020 with the total number of deaths and the number of deaths reported to the PCOME?

In short, total deaths reported to the PCOME and total mortality in Pima County are increased in comparison to previous years. *Why?* Well, that is not entirely clear at this point in the year, and at this point in the pandemic, but some of the following comparisons may provide at least a little insight into what this increased volume represents, at least at the OME.

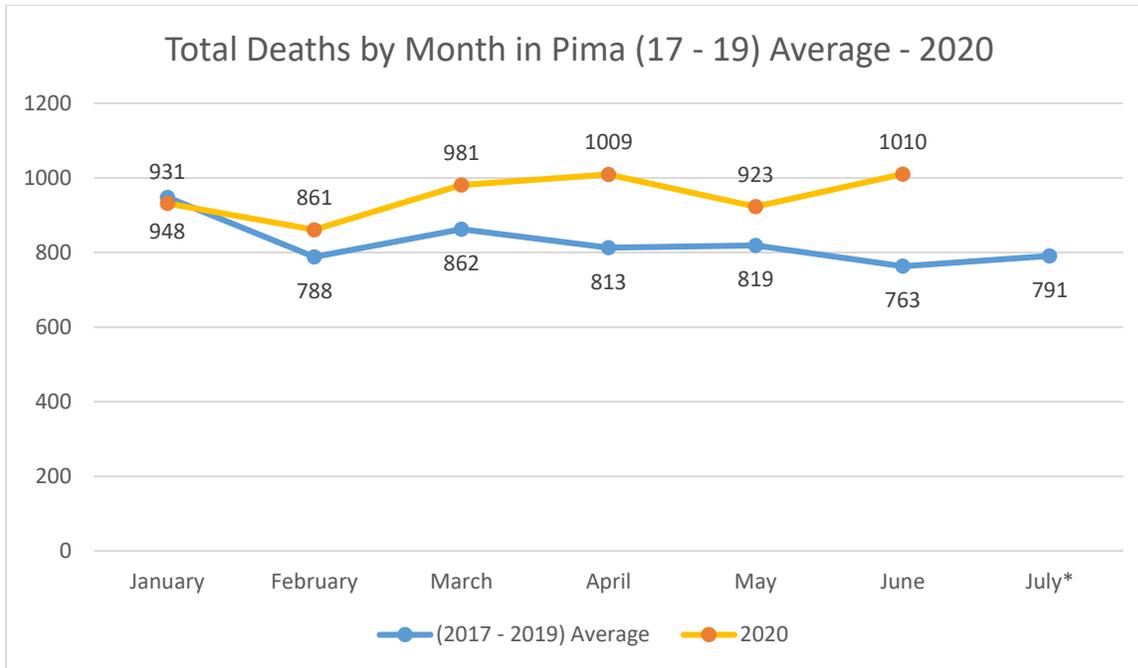
All-Cause, Total Mortality in Pima County

First let’s look at all-cause mortality in Pima County by month over time. Please note that at the date of this data pull (7/26/20) there is no mortality information yet available for July from ADHS. Also, keep in mind that the reported monthly deaths from ADHS for 2020 will likely change (increase) as time goes on, especially in the more recent months. Links to monthly deaths can be found here... <https://pub.azdhs.gov/health-stats/mu/index.php>



* No mortality information yet available for July (as of 07/26/20)

Monthly deaths are increased in 2020 in comparison to the previous three years. In order to clean this up a bit let’s do an average number of deaths by month for 2017 – 2019 and compare that average to 2020 by month and display the values.



* No mortality information yet available for July (as of 07/26/20)

The first chart in Part 1 - Death and Predictability (Part 1) shows the number of deaths/year in Pima County, 9,527 in 2017, increasing to 9,943 in 2019, so mortality has a gradual upward trend over time as the population increases, with periodic fluctuations. The percent increase in total mortality from 2017 to 2019 is 4.37% for example. If we compare the January – June (2017-2019) average (4,993 deaths) against January – June 2020 (5,715 deaths) the percent increase is 14.46% from 17-19 average to 2020.

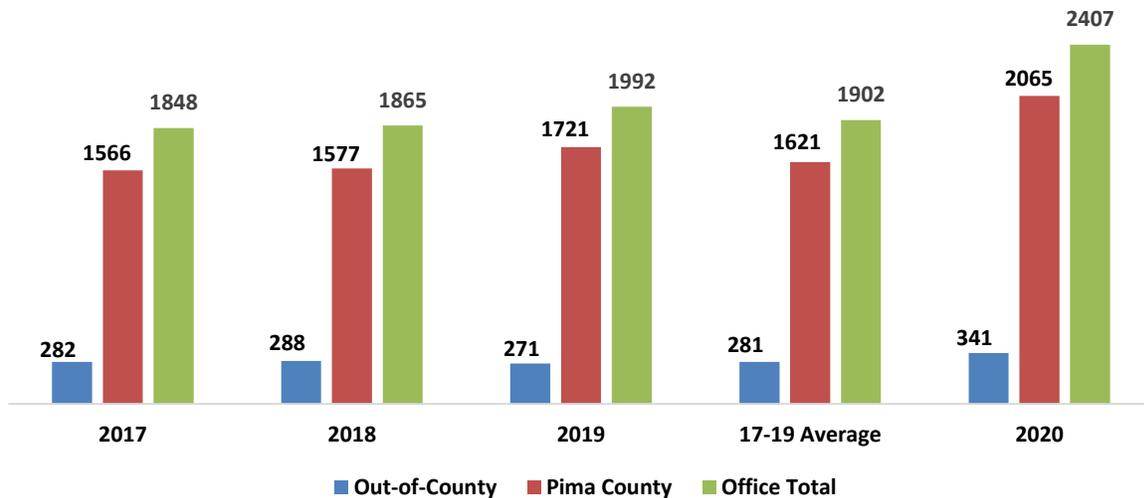
What does this total mortality increase represent?

I don't know. Please remember that approximately 30% of all-cause mortality is reported to the OME and only 60% of reported is accepted, which is 18% of total mortality, so the OME data really only shines a light on a fraction of all-cause mortality as demonstrated in Part 1. That stated, lets focus on what I do know, deaths reported to, and accepted by the PCOME.

Deaths Reported to the PCOME

We have established that total mortality by month in 2020 is increased in comparison to a 2017-2019 average by month. Deaths reported to the PCOME are increased as well so let's look at those.

Total Reported Deaths to PCOME January 1 - July 24 by Year

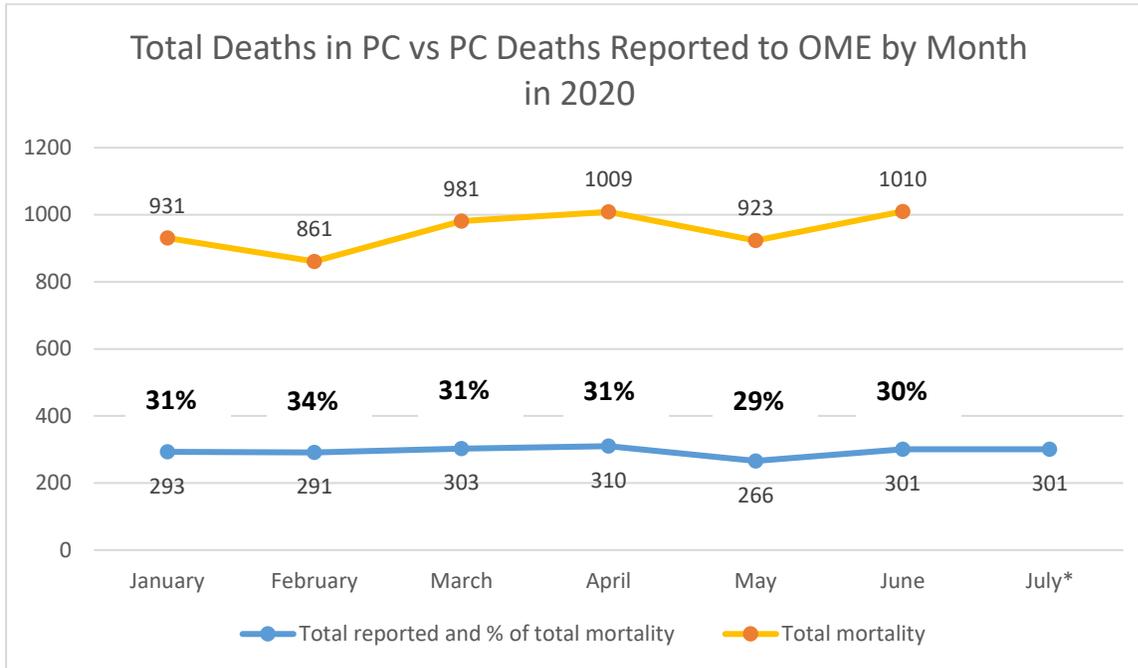


This chart does indeed show that total deaths reported to the PCOME are increased in 2020 in comparison to previous years. More specifically, 504 increased reported deaths in 2020 from the 17-19 average (January 1st – July 24th), including all counties, a 26.55% increase for just over half the year. The 504 increased reported deaths are comprised of 60 out-of-county and 444 Pima County reports. We can also see this by month but first I am going to drop the out-of-county deaths from the remainder of Part 2. I will talk about out-of-county deaths again in Part 3 – Morgue Operations (Part 3) with the focus on postmortem examinations (Autopsy and External examinations) and their impact on our ability to respond to increases in volume in our morgue.

Why are you dropping the out-of-county cases from this narrative?

Sometimes looking at the PCOMEs data concerning out-of-county deaths reported, becomes an apples to oranges comparison. The work the PCOME does for other counties waxes and wanes over time. Some counties have an IGA with Pima County for the PCOME to serve as their Medical Examiner: Cochise (started 07/2012), Graham (started 07/2020), La Paz (started 07/2020). Other counties use the PCOME on a fee-for-service basis under which the PCOME really has no transparency into deaths occurring in those counties beyond what is referred to the OME to examine: Pinal (ended 12/2016), Yuma (ended 07/2020), Gila (ended 07/2020), Navajo (ongoing), Apache (ongoing), Greenlee (ongoing). Santa Cruz County is a fee-for-service arrangement different from the aforementioned fee-for-service counties. Native American reservations in various counties around Arizona also use the PCOME for examinations, but do so outside of the structure that may exist in the county in which the reservation is located and report deaths to the PCOME separately. In short, there is too much flux in out-of-county statistics to provide insight into deaths occurring in those counties and I do not know how to evaluate the small (in comparison to Pima) number of increased out of county reports (60). I will focus on the increase (444) from Pima instead.

Is the increase in reported deaths in Pima County (PC) simply a function of an increase in total mortality or does this represent something different?



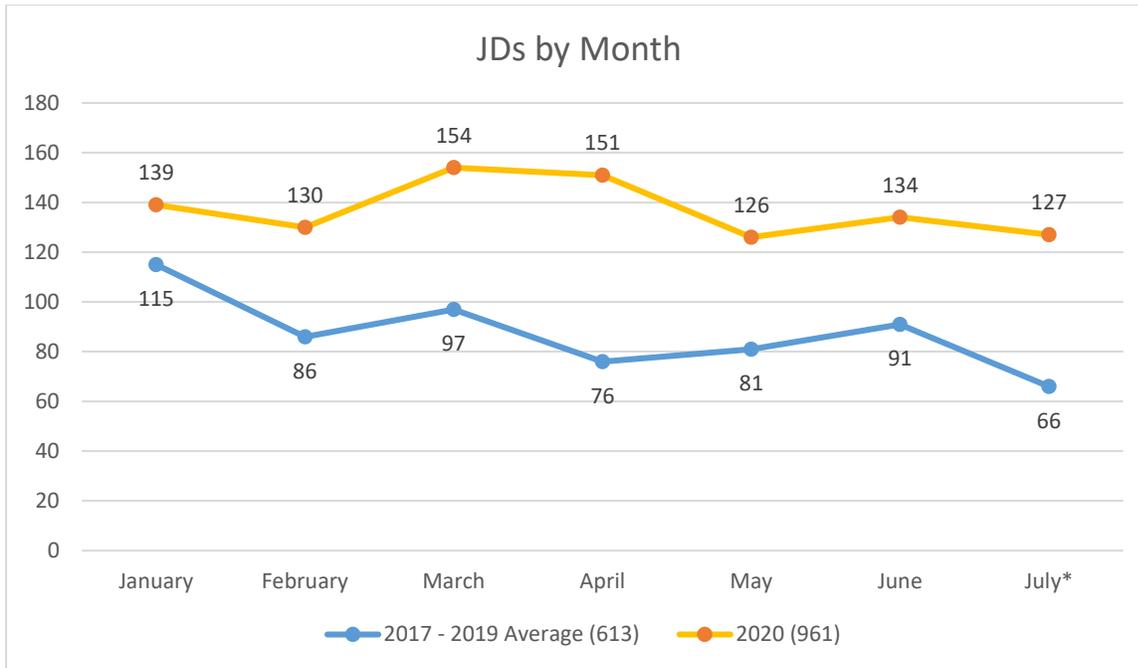
* No mortality information yet available for July (as of 07/26/20). July as 7/1/20 -7/24/20

The above chart shows that although deaths reported from PC to the OME increased in 2020 (444 increased as described on previous page), they still represent approximately 30% of all-cause mortality as is the established norm as outlined in Part 1. It does *not* appear, based on the above, that the increased number of reported deaths to the OME represents anything other than a side effect of increased total all-cause mortality volume. Let's look at the 2020 triage followed by manner of death to see if there are any specific trends.

Jan 1 – June 30	Pima 2017 – 2019 Average	Pima 2020
Total Mortality (TM)	4993	5715
Reported	1427 (29% of TM)	1764 (31% of TM)
Declined (JD)	546 (38% of Reported)	834 (47% of Reported)
Accepted	880 (62% of Reported)	930 (53% of Reported)
Autopsy	521 (59% of Accepted)	491 (53% of Accepted)
External	189 (21% of Accepted)	246 (26% of Accepted)
DC	170 (19% of Accepted)	191 (21% of Accepted)

Just to be clear, this table is January through June and does not include July. Since we do not have any total mortality information yet for July, I could not use July for the triage metrics. What is interesting is that the percentage of declined cases increased in 2020, which drives the accepted percentage down. The significance, if any, of that difference is unclear to me at this point, half way through 2020. I also do not know if there is any significance to the slight decrease in autopsy percentage. This also excludes out-of-county deaths, which, if included, would drive the autopsy percentage up. I will have to run these metrics again in 2021 to look back at all of 2020. Right now, the above triage may or may not mean anything in regards to trends. Time to break out 2020 numbers in other ways.

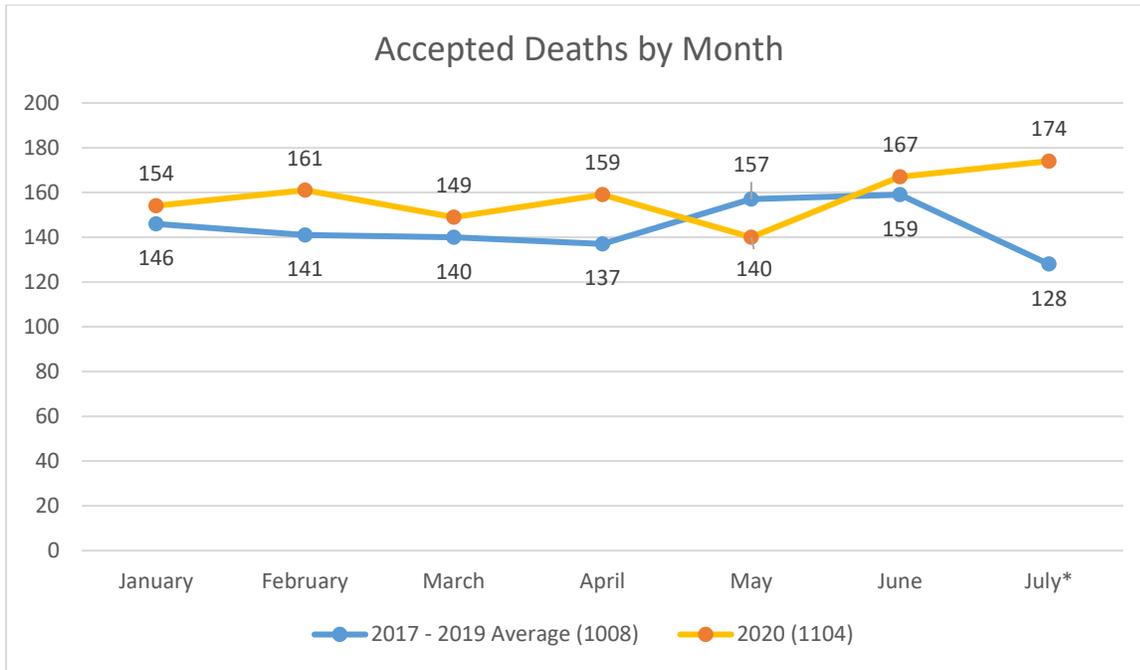
Reported deaths in which jurisdiction was declined (JDs)



*7/1 - 7/24 – not complete month

The triage on the previous page suggests that there are an increased percentage of non-jurisdictional deaths being reported to the OME in 2020. Displaying the JD deaths in the above format corroborates that. 961 non-jurisdictional deaths reported in 2020 vs a 2017 -2019 average of 613 non-jurisdictional, January 1 – July 24. 348 of the 444-increased reported volume from PC are non-jurisdictional.

Deaths in which jurisdiction is accepted: autopsies, externals and DC cases

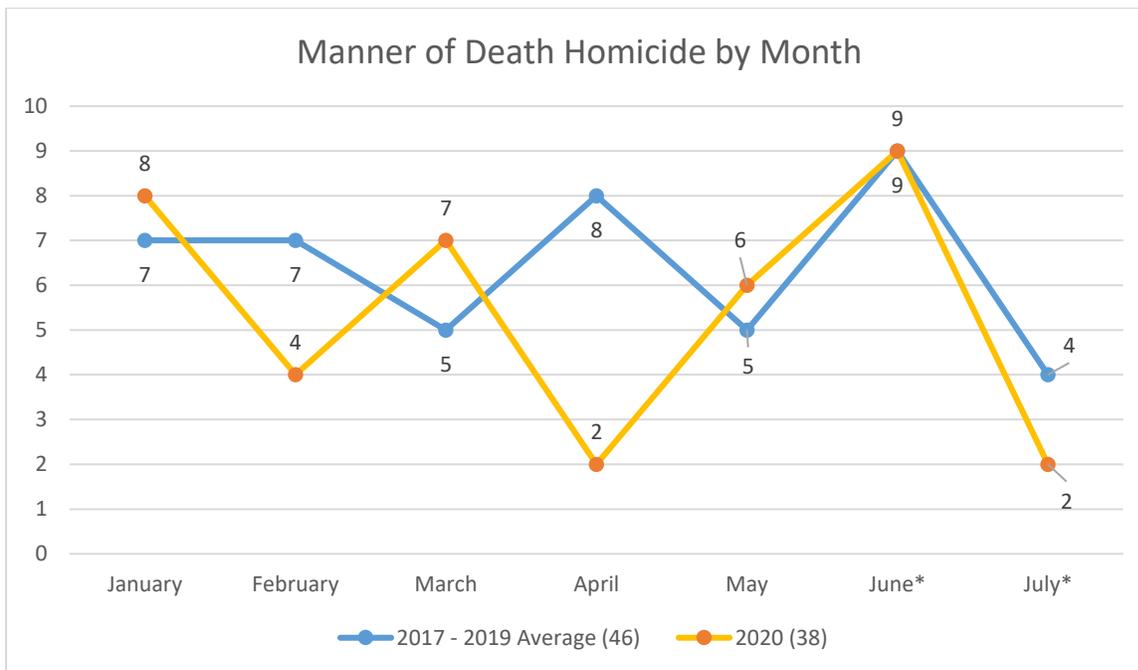


*7/1 - 7/24 – not complete month

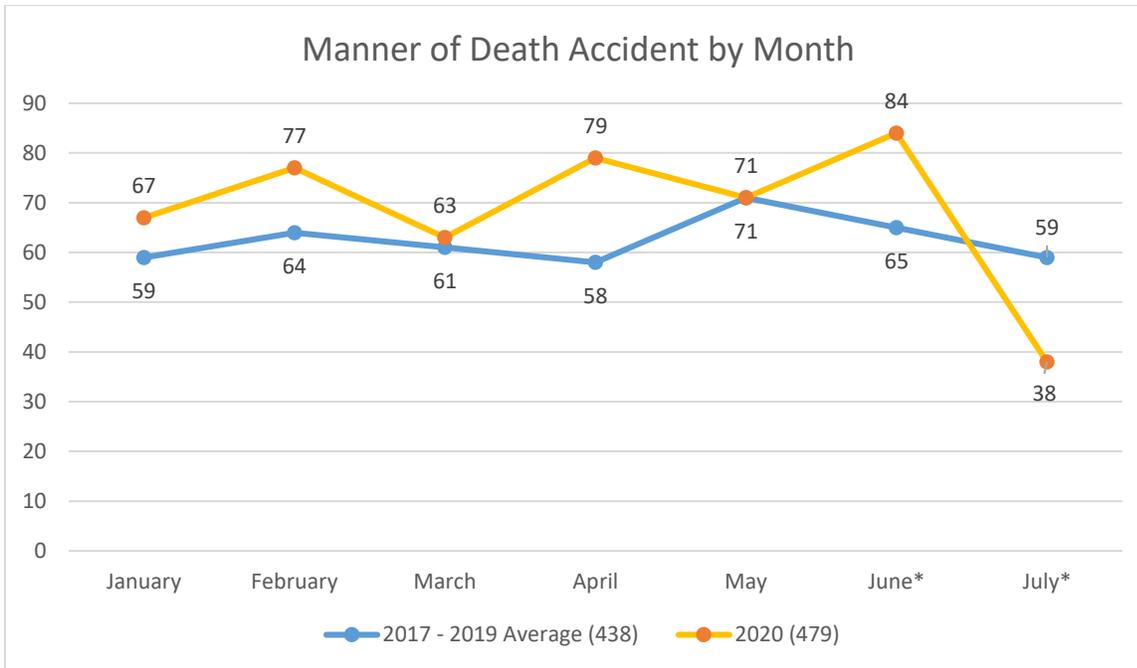
The PCOME accepted jurisdiction in 96 additional deaths from Pima County (1,104 v 1,008) in 2020 than over the average of the same period in previous years. The partial month of July shows the biggest divergence. July 2020 also holds the distinction of being the busiest on record (record defined as 07/01/07 to present) for our morgue operations. Unfortunately, July is difficult to evaluate because it’s “too soon”. Many cause and manner of death classifications for July are yet-to-be determined and “pending” as described on the next page so it is not possible investigate what July deaths represent until some months after July when all the pending deaths are resolved.

Deaths by manner of death

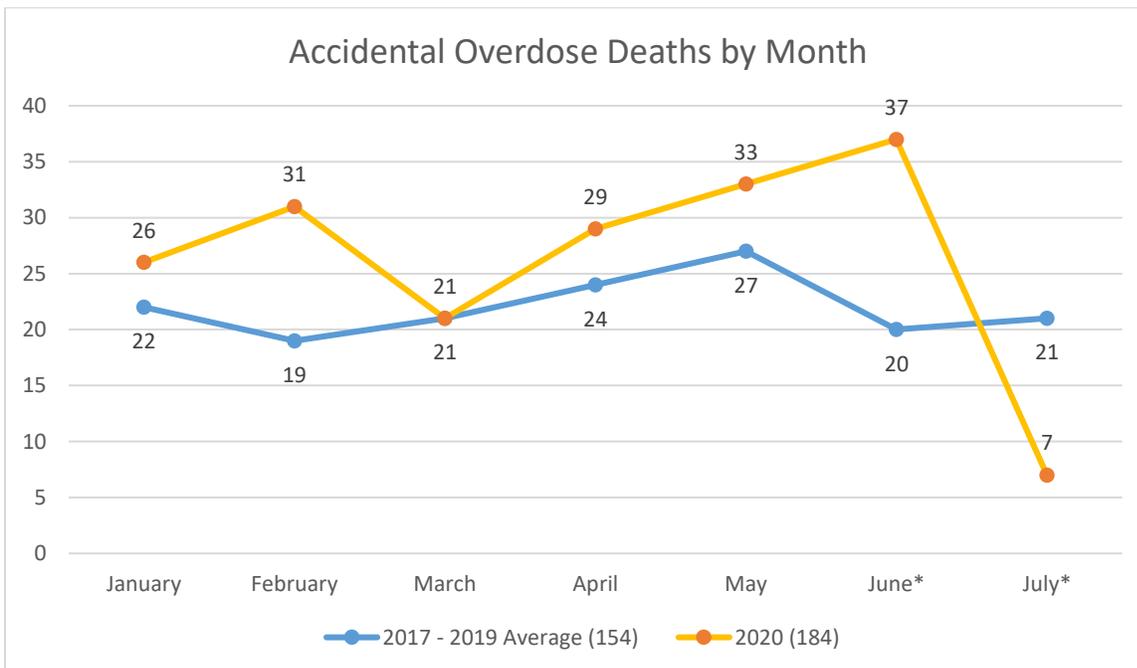
Please note that at the date and time of the data pull (7/26/20) there were 88 “pending” manner of death cases in 2020. The possible manners of death are homicide, suicide, accident, natural, undetermined and pending. Pending means that the final cause and manner of death have not yet been determined. One common example, amongst many, would be a death suspected to be the result of an overdose. The pathologist who performed the postmortem examination needs the toxicology results back from the testing laboratory prior to final certification of the death. The 88 pending manners in 2020 are from May (1), June (14) and July (73). This means that the manner of death value points for June and July 2020 in the charts below are skewed low awaiting resolution of final manners for those pending cases. There are no pending manners in the 2017 – 2019 averages so the pending issues only effects 2020 deaths, again, predominately June and July 2020.



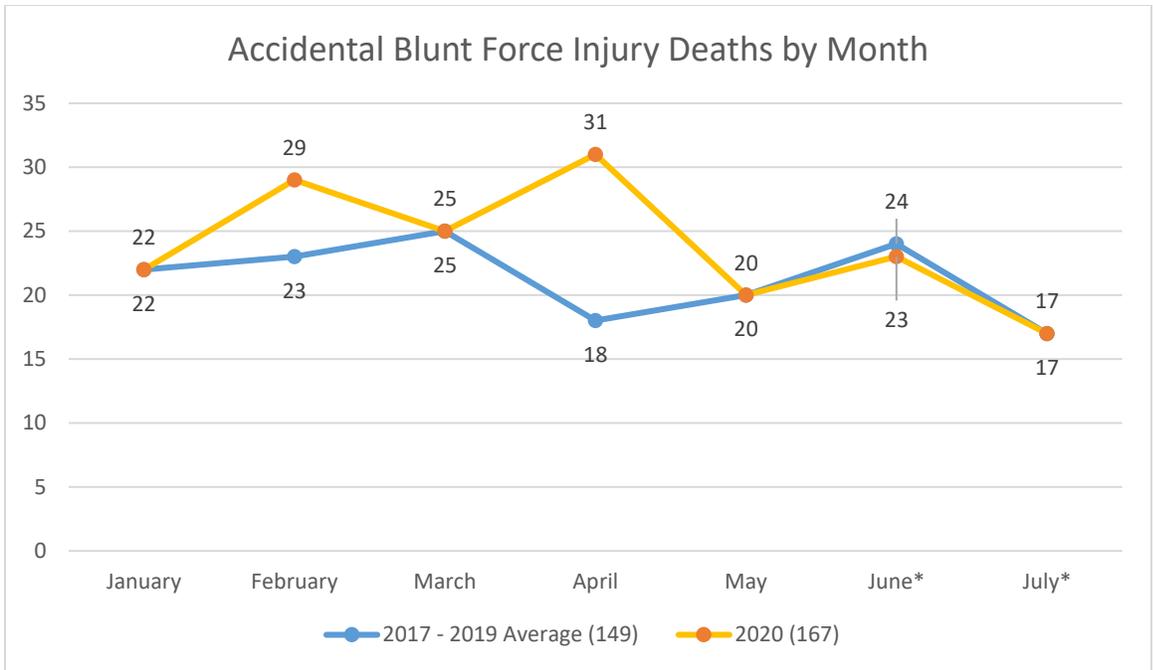
*7/1 - 7/24 – not complete month. Pending manners, June & July 2020, values may be low.



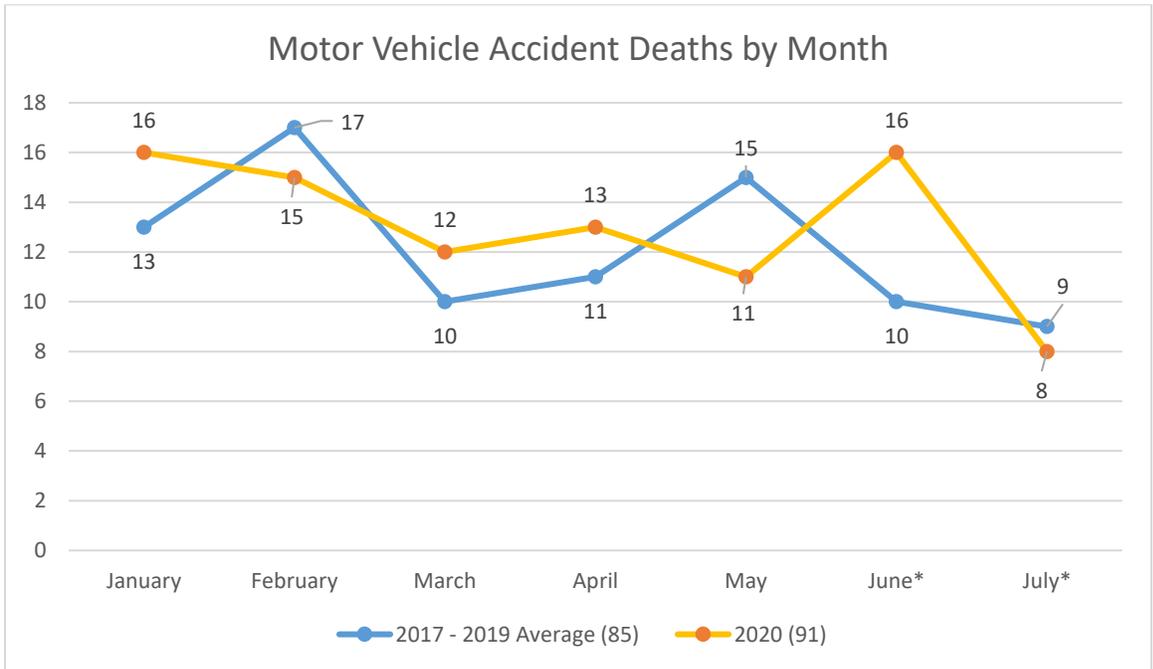
*7/1 - 7/24 – not complete month. Pending manners, June & July 2020, values may be low.



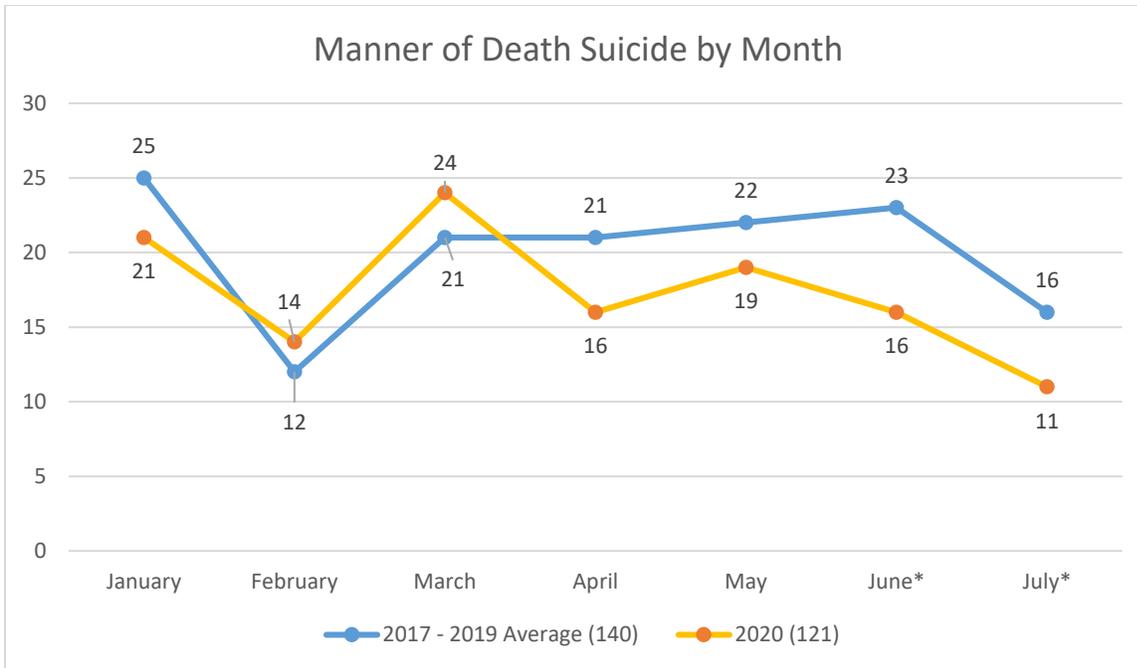
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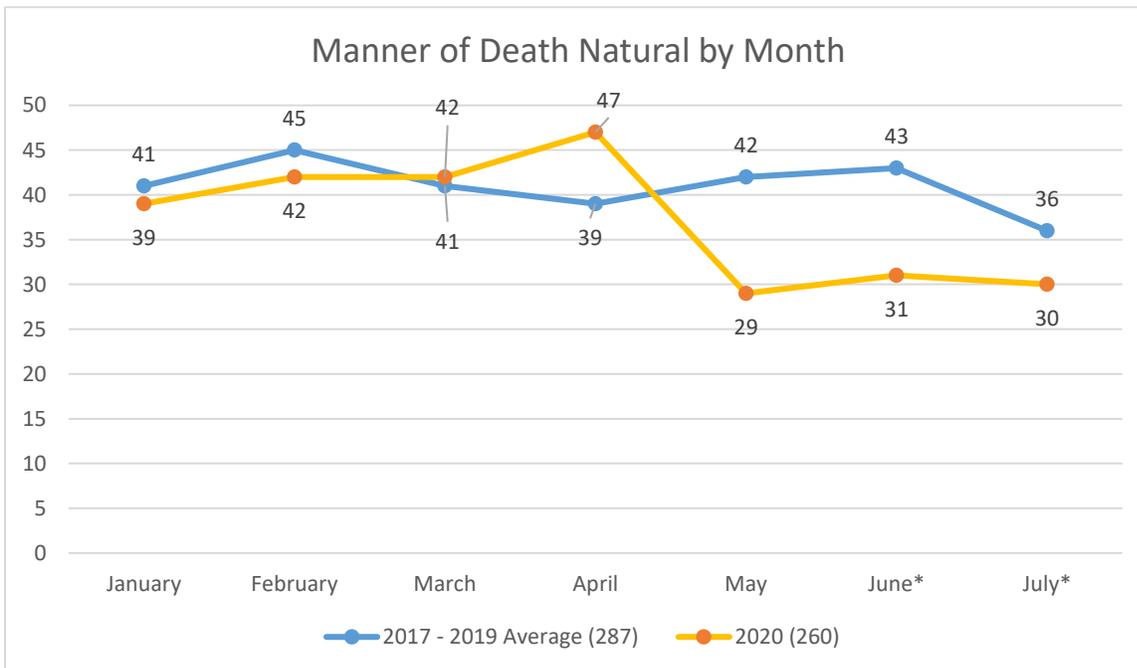
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Thoughts about the manner charts

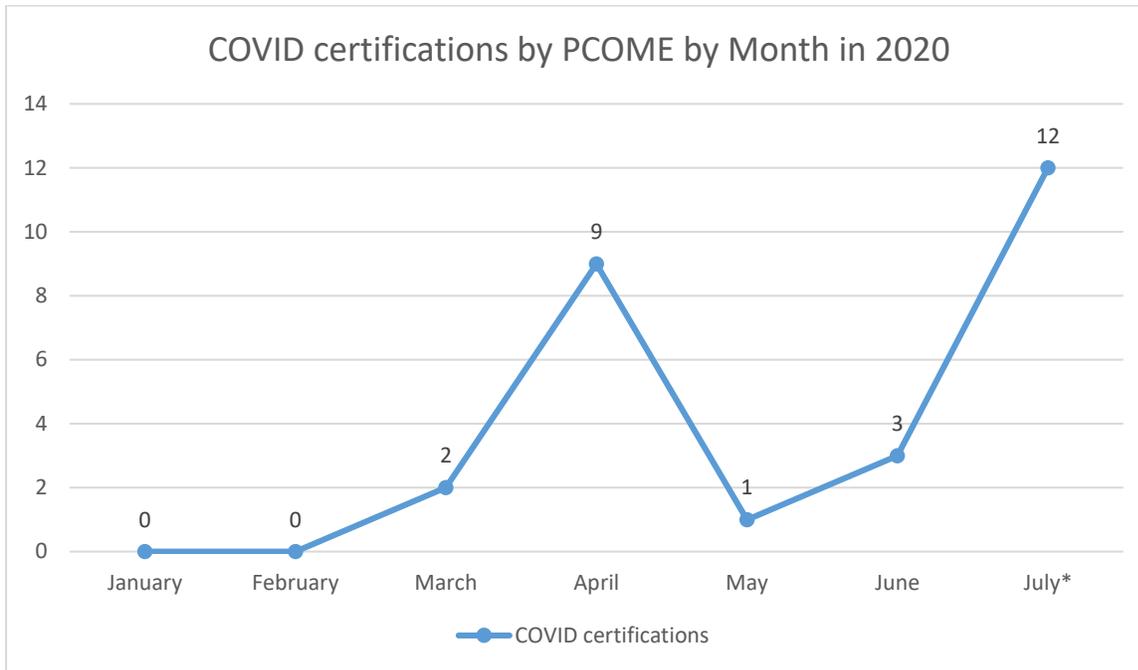
It looks like it is too soon to use manner data to draw truly formative conclusions on pandemic effects on deaths reported to the OME. There are too many pending manners in June/July to make at least July useful. Can we say anything at all about manner of death? Well...

- 1) Accidental deaths are increased in 2020 in comparison to an average of the last three (17-19) years. If we exclude July (too many pendings), it's 378 accidents, January – June 17-19 average vs 441 accidents, January – June 2020. That's even considering 14 June pendings still without a permanent manner of death. Some of those 14 pendings will likely be classified accidents. That is a 16.67% increase for 2020 January – June. *What is accounting for the increase?* Not surprisingly, overdose deaths appear to account for the largest increase, with 177 Jan-Jun 2020 vs 133 Jan-Jun on the 17-19 average. Overdose deaths continue to rise, year-by-year and a full accounting is beyond the scope of this mid-year piece but plenty of information is readily available concerning this issue in Pima and more will follow in the future.
https://webcms.pima.gov/government/medical_examiner/ for PCOME annual reports or <https://webcms.pima.gov/cms/One.aspx?portalId=169&pageId=575524> for a recent report from the Health Department on Fentanyl deaths.
- 2) No significant changes in motor vehicle accident deaths. One thought might be that motor vehicle accident deaths would decrease if people are sheltering in place and not driving. Not seeing that narrative reflected in death numbers. However, not every motor vehicle accident results in a death. The OME does not have information on all motor vehicle accidents, only those resulting in death.
- 3) No significant changes in suicide deaths. One narrative I have heard is that there may be an increase in suicides during the pandemic secondary to social isolation, unavailability of social services, etc. The suicide chart on page 10 indicates a *decrease* in 2020, not an increase. Similar to MVAs, not every suicide attempt results in death and the OME does not have information of suicide attempts, only deaths. In addition, pendings in June and July may result in additional suicide manner classifications not yet reflected in these statistics. The chart shows the first four months of 2020 sea-saw with the 17-19 average. Bottom line, no increase in suicide deaths in 2020 thus far for Pima County.
- 4) I don't have much to say about the naturals or the homicides. No significant trends that I see and again with the pending issue concerning possible naturals in June and July 2020 that have not sorted to that manner classification as of yet.
- 5) I did not pull undetermined manner for this Part 2 report. Many of our undetermined manners represent migrant deaths and those continue as per our usual and unrelated to a 2020 increase in reported deaths.

Thoughts about COVID as it relates to the PCOME

- 1) Most COVID related deaths are not certified through the OME. The vast majority of those deaths are certified by physicians in the community who treated and diagnosed the

illness at a hospital or care facility. Even deaths from COVID at home may be certified by that patient’s treating physician in the community. The PCOME has certified some COVID deaths as seen in the following chart.



*07/01-07/24 partial month

Twenty-seven total certifications (6% of total) out of 431 reported COVID related deaths in Pima County as of 7/29/20.

- 2) Friday, July 10th 2020, the PCOME offered cold storage to funeral homes who may need assistance with additional storage should they be at or close to capacity. Thirteen remains from multiple funeral homes are currently, or were temporarily, housed at the PCOME since the 10th under this program. The PCOME intends to continue to offer this storage option for the duration of the pandemic.
- 3) The rate at which we test the remains we examine for COVID is increasing in June and July in comparison to March – May. I don’t have a hard number chart for this but it remains an objective observation. The reason for the increased testing is three fold. *One*, test materials are more readily available and being provided by the County rather than the PCOME trying to source test materials on our own, as we were doing early on. *Two*, more people have COVID positive medical history, and across a larger demographic, so we simply encounter COVID more often. *Three*, expectations from the next-of-kin of a decedent and/or extended family members have changed as the duration of the pandemic has lengthened and dissemination of the virus has accelerated. It is now common, while collecting information concerning the death of decedent that COVID is a component of the narrative even if it appears irrelevant given the nature of the death. Example: A young healthy man, seen without complaint an hour prior to death, without significant past medical history beyond a history of substance abuse, is found deceased, surrounded

by drug paraphernalia. During the course of the death investigation, we learn that the decedent's relative tested positive for COVID a week prior to the decedent's death and the family is concerned that the decedent contracted COVID from the Uncle. Even though it would appear that the COVID exposure is not contributory based both on death circumstance and on the lack of ante or perimortem COVID symptoms (illness, shortness of breath, fever, etc.), a spoken and unspoken expectation exists in regards to sorting out the COVID exposure. Not doing so constitutes a lack of closure for a concerned family member. In short, we are testing more.

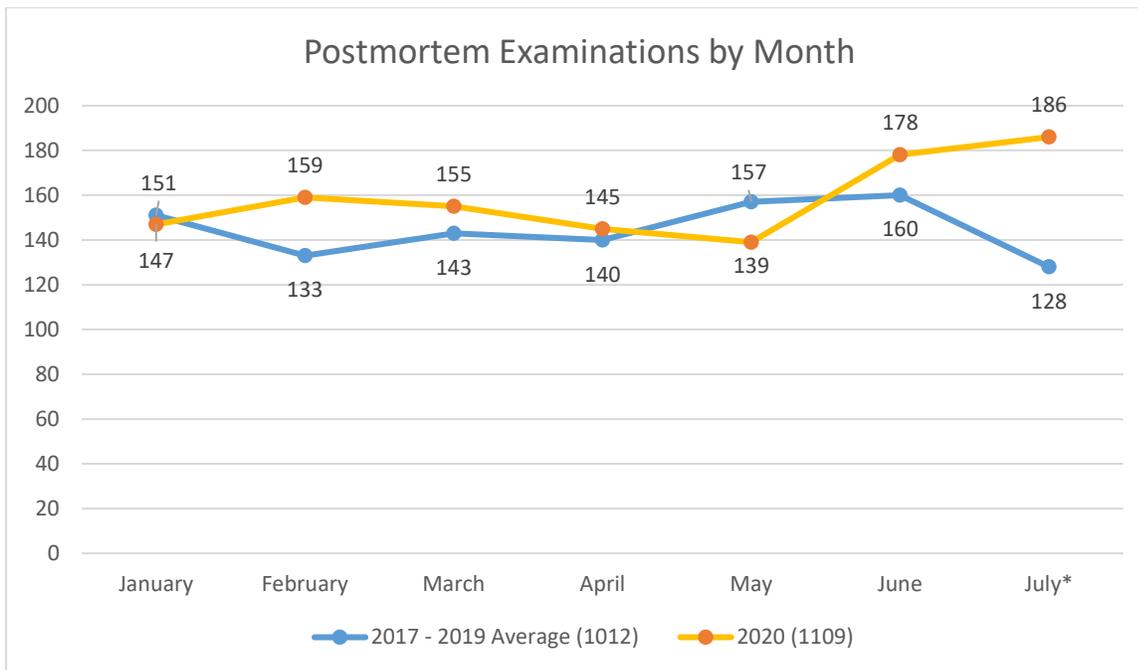
Part 2 Summary (as of the date of the compilation of this report)

- Total mortality in Pima County in 2020 increased 14.46% in comparison to the average for the previous three years.
- Deaths reported from Pima County to the PCOME in 2020 increased 27.39% in comparison to the average for the previous three years.
- 78% of the increased reported deaths from Pima County to the PCOME represent non-jurisdictional, natural deaths.
- 22% of the increased reported deaths from Pima County to the PCOME represent jurisdictional deaths of mixed manners.
- Motor vehicle accident deaths in Pima County have not decreased in 2020.
- Suicide deaths in Pima County have not increased in 2020.
- Overdose deaths continue to comprise our single largest accidental manner of death category in 2020.
- The PCOME certified 6% of Pima Counties COVID related deaths. The majority of COVID related deaths (94%) are unrelated to the OME.
- The frequency for which the PCOME tests for COVID postmortem is increasing.

ATTACHMENT 3

Part 3 – Morgue Operations

In Part 2 we established that “total deaths reported to the PCOME are increased in 2020 in comparison to previous years”, and that “more specifically, 504 increased reported deaths in 2020 from the 17-19 average (January 1st – July 24th), including all counties, a 26.55% increase for just over half the year. The 504 increased reported deaths are comprised of 60 out-of-county and 444 Pima County reports.” So now, I would like to focus on what this increase means in terms of postmortem examinations (PMEs) and our ability, or inability, to respond to increases in volume secondary the constraints of our morgue facility. As a reminder from Part 1, a “postmortem examination” is defined as either an autopsy or external examination: a decedent whom is physically examined at the PCOME facility.



*7/1 - 7/24 – not complete month

As seen in the above chart, July 2020 has been particularly troublesome in regards to the volume of PMEs.

Morgue operations explained

The capacity at which an OME can examine remains is limited by both the number of autopsy stations in the morgue physical plant and the staffing surrounding those stations. An “autopsy station” consists of the physical structure used to examine remains and the ancillary support operations used to support the examination. The physical structure includes the specialized tabling to hold remains, plumbing (sprayers, suction, disposal, multiple sources of running water), electrical (powered saws, specialized lighting), scales, and note-taking infrastructure. The ancillary support includes monitors for radiographs, computers for data and evidence entry,

tabling for specimen collection and documentation, photography and viewing areas. What I attempting to establish is that a PME is not an undertaking with a simple metal table under candlelight. One cannot just order another “table” to add capacity to a facility. It represents an entire suite of surrounding co-dependent structure.

Capacity for the PCOME

The maximum daily capacity for a single station is approximately five PMEs. Complicated deaths requiring copious documentation or advanced prosection techniques decrease the capacity for a station. The PCOMEs morgue has three stations and at least one complicated death per day on average. Our maximum daily capacity is approximately twelve PMEs when utilizing all three stations and when taking into account complex cases. The PCOME runs the autopsy suite five days per week and uses all three stations every working day. Our maximum weekly capacity is as follows...

12 PMEs/day at 5 days/week = 60 PMEs/week

Historically, when looking at the chart on the previous page, the PCOME averages 147 PMEs/month with an average 21 working days/month for an average of 7 PMEs/working day. In June 2020, our average PME/day was 8 and for July 1-24 2020, the average PME/day was 11. Another way to demonstrate...

Maximum daily PME capacity = 12

Average (2017 – 2019) daily PMEs = 7

June 2020 daily PMEs = 8

July 2020 (1-24) daily PMEs = 11 out of a maximum capacity of 12

This is not good.

How do OMEs add capacity to respond to increases in volume?

They add stations to their daily schedule. For example, if an office runs 4 stations/day under standard conditions and they experience a surge in volume, adding a 5th or 6th station allows that office in increase their PME throughput in order work through that surge in volume. I’ll pick on the MCOME in Maricopa County again as an example. The MCOME has 15 stations in their morgue facility. They use between 4-6 stations/day and cap the maximum PMEs per station at 4-5 daily. When they encounter spikes in volume, they add stations and the additional staffing to operate those stations. A station runs on a staff of three: two morgue and one professional staff. The MCOME maintains a stable of temporary morgue staff that they can call up to work in times of need and adds professional staff to the service schedule from either their full time professional employees or recruits temporary professional staff through locums. Locums (see attached) is what the MCOME is offering right now, intending to staff additional stations in response to their

increased pandemic volume. The PCOME already operates at maximum (three stations) capacity and is unable to respond to increased volume in a manner that most offices can as described above.

Why can't you just add more daily PME's to your stations? Do ten PME's per station per day rather than five?

Time and mistakes. Five PME's is already a full day. While extending work hours is possible short term, overtime is not a long-term solution. One can only maintain focus for so long and the potential to make errors would likely increase. Mis-labeled specimens, evidence, remains, etc., are all real worries of too many continuous hours of work.

Why can't you run your morgue seven days per week instead of five?

We could, if necessary in the short term but again, that is not a sustainable long-term solution. The PCOME would have to pay overtime, lots of overtime, or add staff, lots of staff (including adding extremely difficult to recruit professional staff), or both, in order maintain a seven day per week morgue operation. A much better long term solution would be to add stations and therefore have the ability to respond changes in volume.

Part 3 Summary

- The volume of PME's performed at the PCOME is increased in 2020, most acutely in July. The PME volume is increased secondary to the increased total mortality volume as described in Parts 1 & 2.
- The PCOME does not have enough autopsy stations to effectively cope with spikes in volume and operates at just short of maximum capacity at baseline.
- The physical plant limitations of the PCOME are historically well known, identified and documented, but this pandemic increase in volume of death stresses our morgue operations acutely with no reasonably projected end in sight.

ATTACHMENT 3 - A

MARICOPA COUNTY IS SEEKING LOCUM TENENS MEDICAL EXAMINERS



Maricopa County, Arizona

Maricopa County is the fourth largest and fastest growing county in the nation! Our NAME (National Association of Medical Examiners)-accredited, state-of-the-art Medical Examiner's Office (MCOME) is located in Phoenix, Arizona. The MCOME is currently accepting applications for Locum Tenens Medical Examiners to assist our 16 full-time Medical Examiners with a growing caseload.



Phoenix, also referred to as the "Valley of the Sun," experiences 300+ days of sunshine annually. Sunshine makes it possible for you to explore, hike, cycle, fish, horseback ride, and walk along our beautiful desert trails any day. It is a great place to visit for a long weekend!

Locum Tenens Position

- Compensation of \$2,000 per day worked in the office, which includes anticipated costs for travel, hotel, and car rental
- Assignment of a minimum of 4 routine, non-criminal cases per day
- Access to a complete support staff - 25 ABMDI certified investigators who respond to the majority of jurisdictional scenes and staff the office 24 hours a day, seven days a week; 12 forensic examination technicians; three forensic photographers; 11 case clerks; on-site Forensic Anthropologist, on-site Forensic Odontologist, and a full administrative support staff
- Access to in-house histology services with a three day average turnaround-time
- Access to toxicology testing through an external laboratory with an average two-week turnaround-time

Requirements

- Graduation from an approved school of medicine and board certification in anatomic pathology and forensic pathology, or board-eligible in forensic pathology for recent graduates
- Possession of a current license to practice medicine in the State of Arizona (emergency 90-day licensure available) and liability insurance
- Ability to work at least 3 consecutive days
- Successful completion of background check and interview process
- Ability to provide services according to MCOME standards

To apply, please email Curriculum Vitae to Julie Garrity, HR Analyst, at julie.garrity@maricopa.gov