MEMORANDUM

Date: November 20, 2017

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

From: C.H. Huckelberry
       County Administrator

Re: Additional Information Regarding Opioid Use/Misuse Impacts on Pima County

Please see the attached report regarding opioid use/misuse within Pima County in the areas of public health and other publically related costs experienced by the County, healthcare providers and the Medical Examiner.

This analysis does not include the costs related to rescue, emergency services, law enforcement and criminal justice system costs incurred because of the abuse of opioids.

Please advise if you would like to have this information presented to the Board of Supervisors at a future public meeting.

In addition, if you are interested in any additional information on this subject, particularly as it relates to potential litigation to recover all costs associated with opioid misuse and abuse, please contact me.

CHH/anc

Attachment

c: The Honorable Barbara LaWall, Pima County Attorney
   Jan Lesher, Chief Deputy County Administrator
   Dr. Francisco Garcia, Assistant County Administrator for Community and Health Services
   Dr. Gregory Hess, Pima County Medical Examiner
The Burden of Opioid Use/Misuse in Pima County

Francisco García, MD, MPH
Assistant County Administrator & Chief Medical Officer
15 November 2017
Community Health Needs Assessment 2015

Poverty

- Anxiety & Depression Spectrum Disorders
- Diabetes
- Injuries & Accidents
- Substance Abuse & Dependency

Access to Health Care

Carondelet. Be well.

Banner University Medical Center

A Healthy Pima County. Everyone. Everywhere. Every day.
Since 2008, there has been a nearly two-fold increase in number of ED visits and in-patient hospital stays related to opioid misuse.

Source: Pima County, Hospital Discharge Database
Substance Use Related *Emergency Department Visits*

Significant increase in the number of substance misuse related ED visits across age-groups from 20 to 70 years

AZ Hospital Discharge Database
Substance Use Related In-patient Hospitalizations

- Significant increase in the number of substance misuse related hospitalizations across age-groups from 20 to 75 years

AZ Hospital Discharge Database

Opioid-Related, Combined ED & IP Encounter Rates/1,000 Population by Primary Care Area, 2016

- 87% of opioid related ED visits come from 10 PCAs
- 37% of opioid related inpatient visits come from just 2 PCAs
Opioid related ED encounters have increased for nearly every hospital in Pima County.
# Opioids, Negative Health Impacts

## Negative Impacts to Health

### Short-Term
- Constipation
- Vomiting
- Depression
- Sleepiness
- Lowered Sex-Drive

### Long-Term
- Brain Damage
- Liver Damage
- Immune Problems
- Suicidal Behaviors
- Death

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**Common Misused Medications:**
- Stimulants
- Sedatives
- Pain Relievers
Overdose Deaths in Pima County, 2016

• Overdose accounted for 263 deaths (up from 210 in 2011)
• Male (66%) v. female (34%)
• Single drug (51%) v. multi-drug (49%)
• Overdose is the cause
  • 89% (233) accidental deaths
  • 8% (21) suicide deaths
  • 3% (9) undetermined cause of death
Pima County Overdose Deaths by Age-Group, 2016

A Healthy Pima County. Everyone. Everywhere. Every day.
Pima County Overdose Deaths by Drug, 2016

2016 Medical Examiner Report

<table>
<thead>
<tr>
<th>Drug</th>
<th>2016 Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocaine</td>
<td>26</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>33</td>
</tr>
<tr>
<td>Heroin</td>
<td>72</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>6</td>
</tr>
<tr>
<td>Oxycodeine</td>
<td>7</td>
</tr>
<tr>
<td>Oxydormorphone</td>
<td>3</td>
</tr>
<tr>
<td>Methadone</td>
<td>23</td>
</tr>
<tr>
<td>Methone</td>
<td>27</td>
</tr>
<tr>
<td>Codeine</td>
<td>1</td>
</tr>
<tr>
<td>Tramadol</td>
<td>4</td>
</tr>
<tr>
<td>Opiate Unclassified</td>
<td>6</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>15</td>
</tr>
<tr>
<td>Furanyl/Fentanyl</td>
<td>1</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td>3</td>
</tr>
<tr>
<td>Barbiturates</td>
<td>40</td>
</tr>
<tr>
<td>Alcohol</td>
<td>6</td>
</tr>
<tr>
<td>Diphenhydramine</td>
<td>6</td>
</tr>
<tr>
<td>SSRI/SNRi</td>
<td>15</td>
</tr>
<tr>
<td>Tricyclics</td>
<td>3</td>
</tr>
<tr>
<td>Atypical Antipsychotics</td>
<td>6</td>
</tr>
<tr>
<td>Muscle Relaxants</td>
<td>5</td>
</tr>
<tr>
<td>Anti-seizure Agents</td>
<td>2</td>
</tr>
<tr>
<td>Sleep Aids</td>
<td>4</td>
</tr>
<tr>
<td>SF-AMB</td>
<td>1</td>
</tr>
<tr>
<td>Hydrochloroquine</td>
<td>2</td>
</tr>
<tr>
<td>Acetaminophen</td>
<td>3</td>
</tr>
<tr>
<td>Ethylene Glycol</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
</tr>
</tbody>
</table>
Pima County Overdose Deaths by Misused Substance Category, 2016
We all pay for substance misuse and addiction, 2016

<table>
<thead>
<tr>
<th>Hospital Care Setting</th>
<th>2016 Total Charges</th>
<th>2016 Payer Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Department</td>
<td>$24.8 M ($10M more than 2010)</td>
<td>63% AHCCCS, 11% Medicare, 9% Commercial, 10% Other, 7% Self-pay</td>
</tr>
<tr>
<td>Inpatient</td>
<td>$229.4M ($76M more)</td>
<td>48% AHCCCS, 21% Medicare, 13% Commercial, 16% Other, 3% Self-pay</td>
</tr>
</tbody>
</table>
TFD Overdose-Related Call Responses, 2015 to 2017 Q2

2015  1373
2016  1203

Source: TFD
Youth Substance Abuse, Pima County
Youth Substance Use, Pima County

- Students transitioning into middle and high school are at greater risk for substance abuse
- Most illicit drug use starts between ages 14-20 and peaks around 12th grade
- Youth who abuse substances are more likely to experience violence

Source: SAMHSA, 2011-2012

TOBACCO 39%

MARIJUANA 48%

ALCOHOL 72%

Percentage of 12th graders in Pima County self-reporting having tried each substance at least once

Source: Arizona Youth Survey 2014
Youth Opioid Use

- Students transitioning into middle and high school are at greater risk for substance abuse.
- Most illicit drug use starts between ages 14-20 and peaks around 12th grade.
- Youth who abuse substances are more likely to experience violence.

Source: Arizona Youth Survey 2014

Source: SAMHSA, 2011-2012
Costs of Youth Opioid Use

TOLL OF OPIOID USE
Pima County 2010-2015

1,929 youth Hospitalization & E.R. Visits

$63.2 million in Hospital Charges

2/3 paid by public funds

Source: ADHS, Hospital Discharge Data 2010-2015

Sources: ADHS, hospital discharge data, 2010-2015
Pima County Medical Examiner, 2015

A Healthy Pima County. Everyone. Everywhere. Every day.
Preventing Substance Abuse

• Youth and Family
  • Healthy home life
  • Consistent parental expectations
  • Drug free friends
  • Healthy habits
  • High self-esteem
  • Have fun

• Medical Community
  • Clinician awareness
  • Medically Assisted Therapy capacity
Building Blocks to Prevent Substance Abuse

• Neighborhood
  • Clean streets
  • Well-lit areas
  • Safe outdoor spaces
  • Neighborhood connections

• Schools
  • High quality teachers and mentors
  • Encourage school attendance
  • Provide extracurricular activities
Opioid Use Among Pregnant Women in Pima County
Number of Pregnant Women Using Opioids, Pima County
1 in 10 Women Who Use Opioids Are Pregnant
Pregnant opioid users are not just increasing in number, they are also getting younger?
Profile of Opioid Related Hospital & ED Visits
Pregnant Women, Pima County 2015

• No pregnant opioid overdose deaths
• Racial/Ethnic Breakdown
  NH White 51%  Am Ind 5%
  Hispanic 37%  Asian 0%
  Black/Af Amer 4%  Other 3%
• Medicare/Government payer 89% v Private payer 11%
• Average Hospital Charges: $12,952/episode
• 1/3 pregnant women in PCADC are opioid involved and on MAT
Preventing Substance Among Pregnant Women

• Individual
  • Fostering resilience
  • Peer support

• Health Care Systems
  • Opioid prescribing guidelines
  • Prescription Monitoring Program
  • Medically Assisted Therapy
  • Correctional care

• Community
  • Poverty
  • Economic opportunity
  • Housing
  • Supportive services
Opioid Use Among Seniors in Pima County
## Opioid Use Related Hospitalizations Among Seniors, Pima County 2015

<table>
<thead>
<tr>
<th>Age Group</th>
<th>ED &amp; Hospital (%)</th>
<th>ED Only (%)</th>
<th>Hosp Only (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-64</td>
<td>29.5</td>
<td>9.6</td>
<td>19.9</td>
</tr>
<tr>
<td>65-69</td>
<td>23.3</td>
<td>6.8</td>
<td>16.5</td>
</tr>
<tr>
<td>70-74</td>
<td>18.6</td>
<td>3.6</td>
<td>14.9</td>
</tr>
<tr>
<td>75-79</td>
<td>11.0</td>
<td>2.6</td>
<td>8.4</td>
</tr>
<tr>
<td>80+</td>
<td>17.6</td>
<td>3.9</td>
<td>13.8</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>26.5</td>
<td>73.5</td>
</tr>
</tbody>
</table>

Deaths: 24  Attempt Suicide: 30
Profile of Opioid Hospitalized Seniors, Pima County 2015

- Female 57.7% v Male 42.3%

- Racial/Ethnic Breakdown
  - NH White 77%
  - Hispanic 17%
  - Black/Af Amer 3.4%
  - Am Ind 1.4%
  - Asian 0.5%
  - Other 0.7%

- Medicare/Government payer 81.3% v Private payer 18.7%

- Average Hospital Stay: 123 hours (5.1 days)

- Prescription Drug 97%
Pima County Overdose Deaths by Age-Group, 2015

- <1: 0
- 1-5: 0
- 6-12: 1
- 13-19: 6
- 20-29: 36
- 30-39: 53
- 40-49: 55
- 50-59: 74
- 60-69: 27
- 70-79: 6
- 80-89: 4
- >90: 0

2015 Medical Examiner Report
Preventing Substance Abuse Among Elders

• **Individual**
  - Awareness/PCOA Be Med Smart
  - Medication security
  - Medication disposal
  - Peer support

• **Clinician**
  - Opioid prescribing guidelines
  - Prescription Monitoring Program
  - Drug interaction awareness
  - Polypharmacy

• **Community**
  - Combating isolation
  - Supportive services
Opioid Use in Pima County
Framework for Public Health Action

Health Intervention Impact Pyramid

- Counseling/Education
- Clinical Medicine
- Clinical Care
- Long-term Protection
- Context/Policy
- Public Health
- Socio-economic

Contact Information

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