The Burden of Opioid Use/Misuse in Pima County

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Assistant County Administrator & Chief Medical Officer
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What impacts health?
How do you get results?
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

EL RIO Community Health Center

Pima County Health Department

Northwest Healthcare
Northwest Medical Center | Oro Valley Hospital

Framework for Public Health Action

Opioid Use in Pima County
Behavioral Health Disorders

- Manic-Depressive Psychosis: 2,788
- Drug and Alcohol Related: 1,277
- Schizophrenia: 1,279
- Depression and Anxiety: 1,509

Source: Arizona Department of Health Services, Bureau of Epidemiology and Disease Control Services
Note: includes first listed diagnoses only
Opioid-Related Hospital Encounters, 2008-2016

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 ED Visit Rates/1,000 Population by Primary Care Area, 2016
Opioid-Related Inpatient Encounter Rates/1,000 Population by Primary Care Area, 2016
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 Hospitalization by Age and Ethnicity, 2008, 11 & 15
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

**COMMON MISUSED MEDICATIONS:**
STIMULANTS - SEDATIVES - PAIN RELIEVERS

A Healthy Pima County. Everyone. Everywhere. Every day.
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

2016 Medical Examiner Report
Pima County
Overdose
Deaths by Drug, 2016

2016 Medical Examiner Report

- Cocaine: 26
- Methamphetamine: 79
- Fentanyl: 33
- Heroin: 72
- Opioid: 6
- Hydrocodone: 7
- Oxymorphone: 3
- Methadone: 23
- Morphine: 27
- Codeine: 1
- Tramadol: 4
- Fentanyl: 6
- Fentanyl: 1
- Hydroxyzine: 30
- Barbiturates: 4
- Alcohol: 40
- Diphenhydramine: 15
- Tricyclics: 3
- Atypical Antipsychotics: 6
- Muscle Relaxants: 5
- Anti-seizure Agents: 2
- Sleep Aids: 4
- Sf-AMB: 1
- Hydroxychloroquine: 2
- Acetaminophen: 3
- Ethylene Glycol: 1
- Other: 5

Pima County
Healthy
Every
One.
Every
Where.
Every
Day.
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</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11% Medicare</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9% Commercial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10% Other</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7% Self-pay</td>
</tr>
<tr>
<td>Inpatient</td>
<td>$229.4M ($76M more)</td>
<td>48% AHCCCS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>21% Medicare</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13% Commercial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16% Other</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3% Self-pay</td>
</tr>
</tbody>
</table>
TFD Overdose-Related Call Responses, 2015 to 2017 Q2

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>1373</td>
</tr>
<tr>
<td>2016</td>
<td>1203</td>
</tr>
</tbody>
</table>

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

21% of 12th graders in Pima County self-reporting having tried opioids at least once.

- 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
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

Most Pregnant Women Using Opioids in Pregnancy are 20 to 30
Pregnant opioid users are not just increasing in number, they are also getting younger?
# Opioid Use Related Hospitalizations Among Pregnant Women, Pima County 2010-2015

<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>15-19</td>
<td>38 (3.5)</td>
<td>16 (1.5)</td>
<td>22 (2.0)</td>
</tr>
<tr>
<td>20-24</td>
<td>365 (34.0)</td>
<td>127 (11.8)</td>
<td>238 (22.2)</td>
</tr>
<tr>
<td>25-29</td>
<td>381 (35.5)</td>
<td>113 (10.5)</td>
<td>268 (25.0)</td>
</tr>
<tr>
<td>30-34</td>
<td>208 (19.4)</td>
<td>54 (5.0)</td>
<td>154 (14.3)</td>
</tr>
<tr>
<td>35-39</td>
<td>67 (6.2)</td>
<td>26 (2.4)</td>
<td>58 (5.4)</td>
</tr>
<tr>
<td>40-44</td>
<td>14 (1.3)</td>
<td>7 (0.7)</td>
<td>7 (0.7)</td>
</tr>
<tr>
<td>45-49</td>
<td>1 (0.1)</td>
<td>0 (0)</td>
<td>1 (0.1)</td>
</tr>
<tr>
<td>Total</td>
<td>1680 (100.0)</td>
<td>343 (31.9)</td>
<td>748 (69.6)</td>
</tr>
</tbody>
</table>
Profile of Opioid Related Hospital & ED Visits Pregnant Women, Pima County 2015

- No pregnant opioid overdose deaths
- Racial/Ethnic Breakdown
  - NH White 51%
  - Hispanic 37%
  - Black/Af Amer 4%
  - Am Ind 5%
  - Asian 0%
  - Other 3%
- Medicare/Government payer 89% vs 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&amp;Hosp (%)</th>
<th>ED Only</th>
<th>ED Only (%)</th>
<th>Hosp Only</th>
<th>Hosp Only (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-64</td>
<td>496</td>
<td>29.5</td>
<td>162</td>
<td>9.6</td>
<td>334</td>
<td>19.9</td>
</tr>
<tr>
<td>65-69</td>
<td>392</td>
<td>23.3</td>
<td>114</td>
<td>6.8</td>
<td>278</td>
<td>16.5</td>
</tr>
<tr>
<td>70-74</td>
<td>312</td>
<td>18.6</td>
<td>61</td>
<td>3.6</td>
<td>251</td>
<td>14.9</td>
</tr>
<tr>
<td>75-79</td>
<td>184</td>
<td>11.0</td>
<td>43</td>
<td>2.6</td>
<td>141</td>
<td>8.4</td>
</tr>
<tr>
<td>80+</td>
<td>296</td>
<td>17.6</td>
<td>65</td>
<td>3.9</td>
<td>231</td>
<td>13.8</td>
</tr>
<tr>
<td>Total</td>
<td>1680</td>
<td>100.0</td>
<td>445</td>
<td>26.5</td>
<td>1235</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

<table>
<thead>
<tr>
<th>Race</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>NH White</td>
<td>77%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>17%</td>
</tr>
<tr>
<td>Black/Af Amer</td>
<td>3.4%</td>
</tr>
<tr>
<td>Am Ind</td>
<td>1.4%</td>
</tr>
<tr>
<td>Asian</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

• 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

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
The AZ Rx
(PMP) Prescription Monitoring Program

AWARENESS.ACTION.OUTCOMES!
Controlled Substances Prescription Monitoring Program

• Arizona’s 48th Legislature passed H.B. 2136
• Signed by the Governor on July 2, 2007, effective on September 19, 2007.
• https://pharmacy.az.gov under the “Rx Monitoring Website”
Sample Report Card

Prescriptions Written

<table>
<thead>
<tr>
<th>Medication</th>
<th>You</th>
<th>Yavapai Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzodiazepine</td>
<td>2.3</td>
<td>3.7</td>
</tr>
<tr>
<td>Carisoprodol</td>
<td>2.3</td>
<td>0.3</td>
</tr>
<tr>
<td>Hydrocodone</td>
<td>15.0</td>
<td>12.4</td>
</tr>
<tr>
<td>Oxycodone</td>
<td>17.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Other Pain Relievers</td>
<td>14</td>
<td>7.3</td>
</tr>
</tbody>
</table>
Sample Report Card #2

Quantity of Pills

- Benzodiazepine: 66.3 (You), 106.0 (Yavapai Avg)
- Carisoprodol: 230.0 (You), 14.9 (Yavapai Avg)
- Hydrocodone: 1,660.7 (You), 368.2 (Yavapai Avg)
- Oxycodone: 1,923.0 (You), 188.2 (Yavapai Avg)
- Other Pain Relievers: 603.3 (You), 47.3 (Yavapai Avg)
Health Care Systems Call to Action

• Provide Patient education training and materials for prescribers and pharmacists.
• Encourage that Health Care Professionals register and implement (PMP) Controlled Substances Prescription Monitoring Program.
• Go to the PMP AWARxE login page https://Arizona.pmpaware.net/login

• For support contact Raul Munoz, Program Coordinator-Community Engagement
  Phone:(520)724-7973  Raul.munoz@pima.gov
Mama
Mothers in Arizona Moving Moving Ahead

- 18-month pilot project for mothers with children under 18
- Partnership between the county and five organizations
- Comprehensive program model built around the Getting Ahead:
  - Extended coaching support after Getting Ahead
  - Health-related curriculum and connection to resources
  - An effort to create change at the systems level
    - Moms as expert, empowered advocates of their community
    - Educating and engaging those who serve people in poverty

A Healthy Pima County. Everywhere. Every day.

The MAMA Experience

Getting AHEAD in a Just-Gettin’-By World
BUILDING YOUR RESOURCES FOR A BETTER LIFE

13 Moms + 2 Facilitators

Meet once a week for 17 weeks

Circles of Care
3 Moms + 5 Allies/Coaches

Meet once a month for the rest of the year (about 8 times total)

PIMA COUNTY HEALTH DEPARTMENT
Mac Arthur Foundation funded initiative to safely reduce over-incarceration by addressing racial/ethnic disparities

- Data driven decision making combined with evidence-based practices to inform policy change
- Goal: Reduce average daily jail population from 2,136 in 2014 to 1,574 and a $2 M/year savings
- Pretrial Services:
  - Risk screening of all misdemeanor defendants
  - Behavioral/health screening and linkage to treatment
  - Enhance pretrial supervision of behavioral health patients
Pay-for-Success (Social Investment Bond) Project

• Funded by HUD & DOJ to develop new models of financing to expand permanent supportive housing for reentry populations
• Housing First with Forensic Assertive Community Treatment
• Target Population
  • Homeless individuals
  • Incarcerated more than twice a year
  • Behavioral health diagnosed
• Outcome Metrics
  • Social: Criminal Justice, Housing, Job Readiness, Costs
  • Health: Health Insurance Enrollment, Beh health, ED visits, PCP
Opioid Use in Pima County
Framework for Public Health Action

Contact Information

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(520) 724-7931
Pima County Health Department

Mission

To ensure the health, safety, and well-being of our community through leadership, collaboration, and education.

Vision

A Healthy Pima County: Every one. Every where. Every day.

Health Department Video

A Healthy Pima County. Everyone. Every where. Every day.