

# PAS Program

Patient Advocate Service

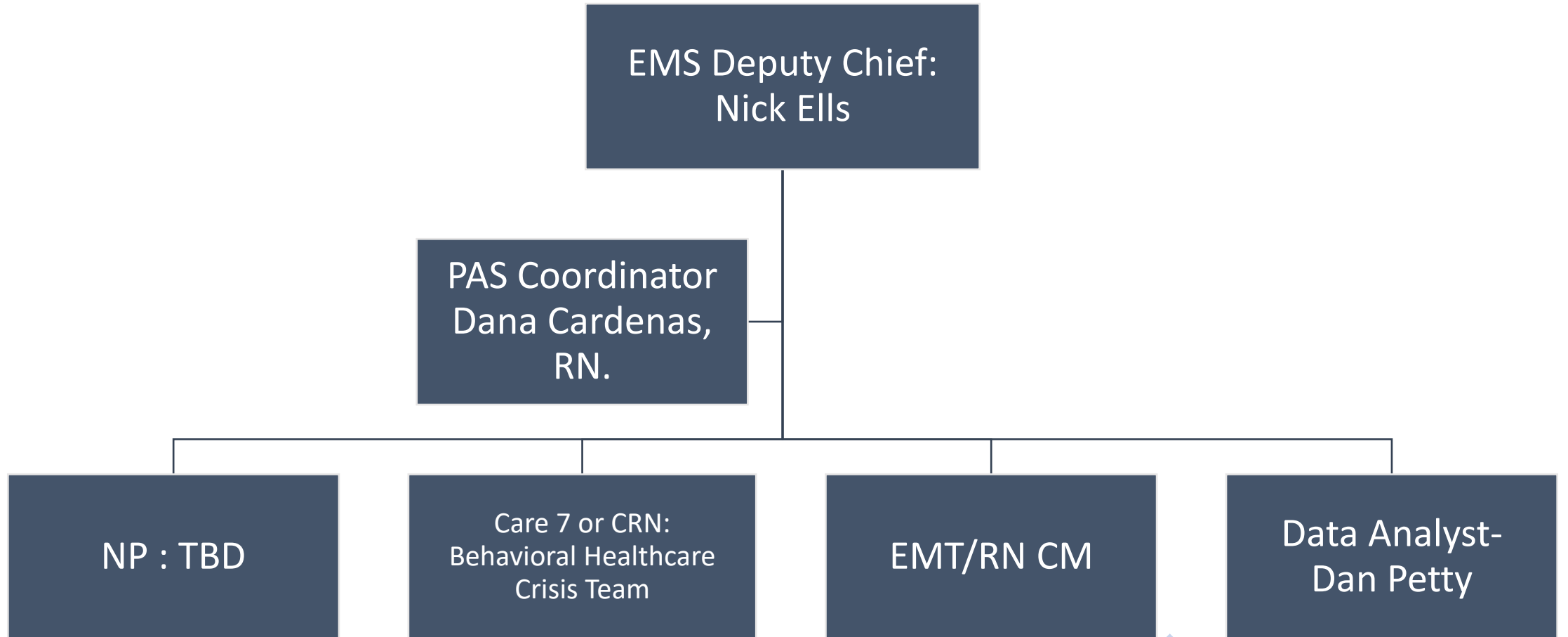
Tempe Fire Medical Rescue

Community Medicine Program

# PAS History

- **PAS started as a pilot project by our Medical Services Dept.: Deputy Chief and EMS Captain went out to see patients flagged as frequent non-emergent**
- **Top 20 patients with multiple visits.**
- **Dept. hired a RN to make patient visits accompanied by a light duty firefighter or local hospital RN.**
- **Grant Funded by a Tribal Gaming Grant awarded by City Council.**

# TFMR PAS TEAM



- **Fire Crews**
- **Police Dept.**
- **Hospital Case Managers and ER**
- **Non-profits in Tempe**
- **Neighborhood residents**
- **Families**
- **Faith-based organizations**

# Referrals:

**Secure Email: [PAS@tempe.gov](mailto:PAS@tempe.gov)**  
**or Fax: 480-898-7252**

# PAS Visits:



Intake assessments



Diagnose and investigate



Inform educate and empower



Mobilize community resources



Ensure residents safety and security



Link patients to Primary and Specialty Care



Re-evaluate and help coordinate care

# What make us different?

- **Through a tailored approach to care for frequent users, we identify and addresses social determinants of health (SDoH) needs/gaps, while improving patient quality of life (QoL) and reducing overall health care expenditures. The COVID-19 pandemic has highlighted disparities in health care and outcomes disparities.**
- **Proactive Pandemic Outreach to Tempe residents that were the most medically vulnerable such as: DDD community, seniors on PAS services past and present, medically vulnerable veterans, those experiencing Homelessness, and those with identified with mental health care needs.**

# Social Determinants of Health: SDOH

- **Availability to healthcare, vaccinations and medications through coordination of care with Primary Care Clinics, local hospitals, pharmacies, AZ Public Health Department and AZ health care plans**
- **Availability to food and essential cleaning supplies through Salvation Army, TCAA, and other non-profit organizations**
- **Availability to housing through collaborations with HOPE TEAM and Human Services Department**
- **Education with Health Literacy Assessment and Educations on Disease Processes**
- **Connecting isolated residents through Tele- Medicine for Mental Health Care and Medical Care as well as socializing with others while being quarantined or social distant**

# Predictive model development

- **EMS and community health data pulled from ImageTrend**
- **Processed through R and H2O software, joined with Census data**
- **Model is trained on historical data, tested on unseen data**
- **Best performing models are used on future data**
- **Recent call volume and total call volume are most predictive, but many factors contribute to prediction**
- **Top 10% of model's recommendations contain 44% of all 30-day repeat patients**

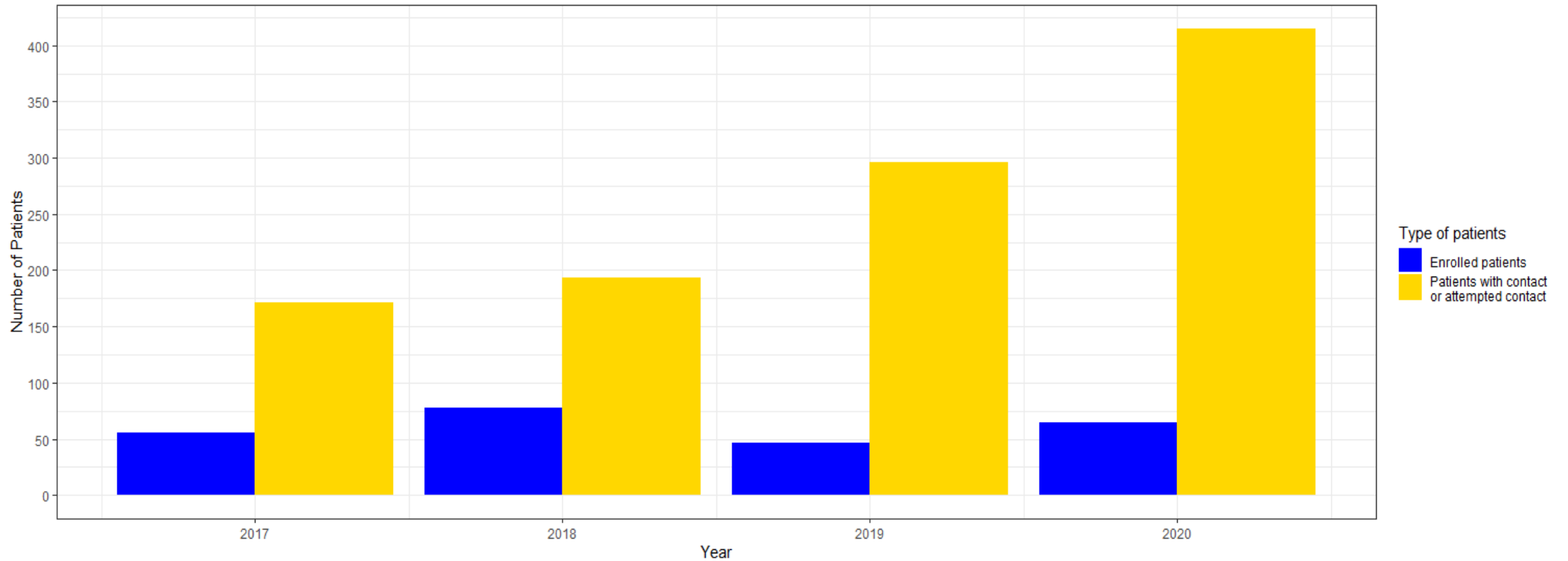


# Closed Loop Referral System:



# Outreach data

Comparison of patient enrollment to patient outreach



# Call reduction results

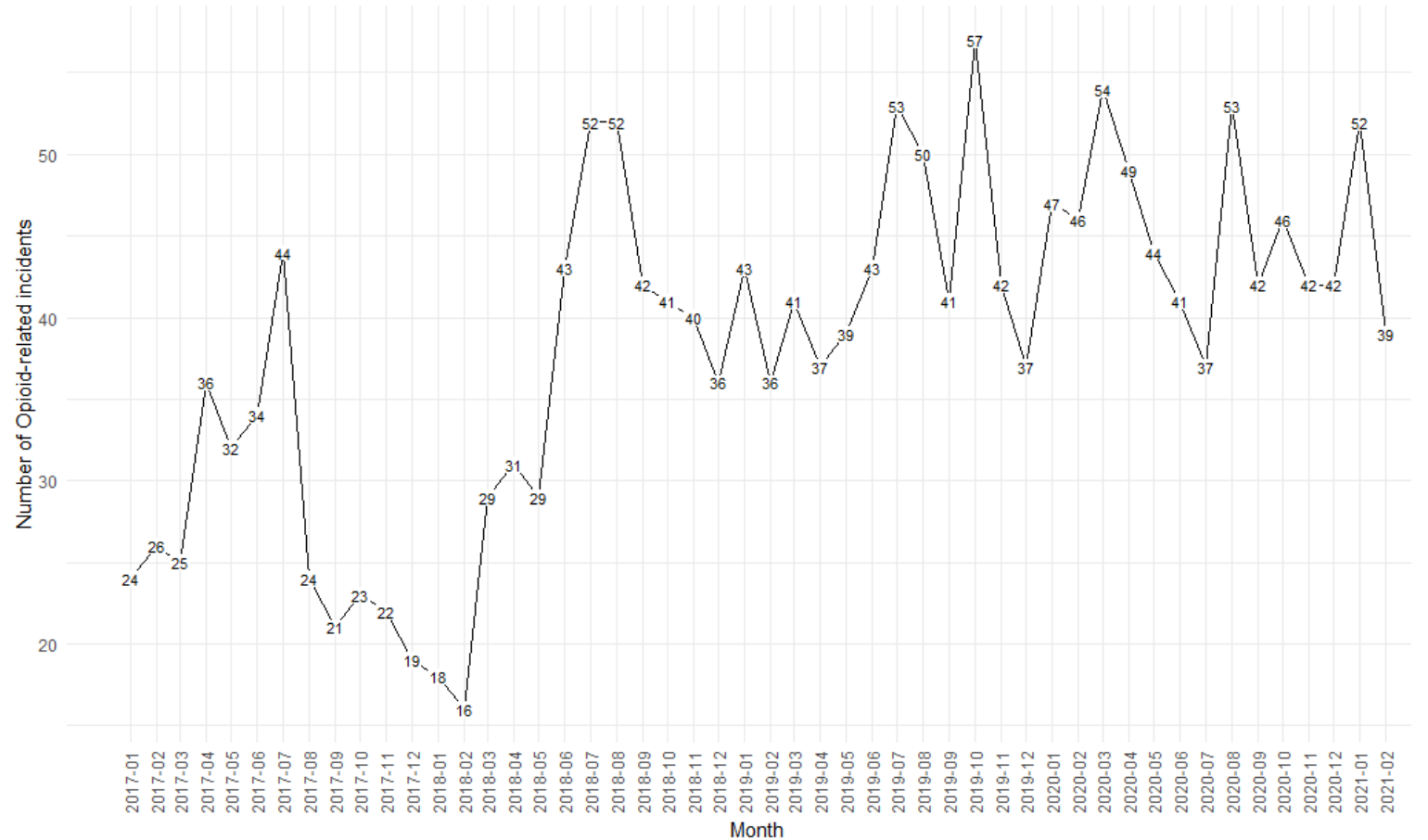
<b>Year</b>	<b>Number of Patients Enrolled</b>	<b>Total EMS 911 calls six months pre-enrollment</b>	<b>Total EMS 911 calls six months post-enrollment</b>	<b>Percent Reduction</b>
2017	56	133	73	45%
2018	78	77	72	6%
2019	47	276	153	45%
2020	65	185	104	44%



# Opioid Data: Incidents on EMS Calls Shows increase in opioid related EMS calls

Number of Opioid-related incidents each month

Jan 2017 through Jan 2021

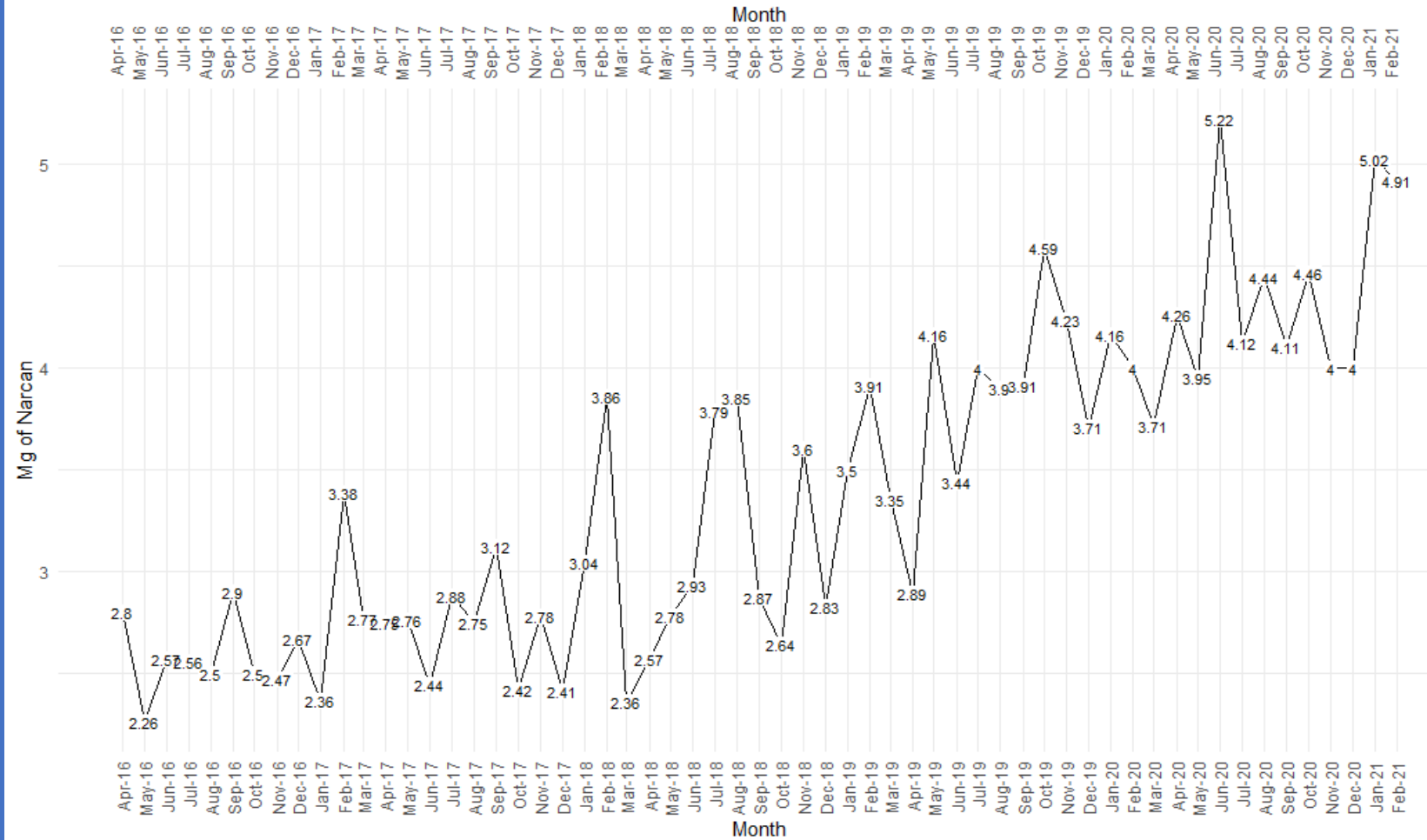


Incidents indicated as opioid abuse probable in TFMRD c

Opioid Data:  
 Increase in amount  
 of Narcan needing to  
 be used on patients  
 to show effectiveness  
 has more than  
 doubled.

### Average Narcan Dose on incidents where Narcan was given

Based on TFMR documentation of Narcan administered by any agency or individual



## Covid-19 outreach efforts

- 300 PAS Patient Outreach Phone Calls
- 100 scheduled Food Box Deliveries
- 60+ Veterans Outreach or Tele-Medicine visits
- Education per CDC and AZ State Guidelines to over 2,600 Senior and DDD residents of Tempe
- 90-day routine med prescription deliveries established for patients
- 100+ COVID welfare checks for local hospitals
- Monthly then quarterly Senior COVID Recovery Meetings for Nursing Homes, Skilled Nursing and Rehab Centers in Tempe.



# Cost Share Savings:



Hospitals  
Systems

- Decrease in **readmissions**
- Decrease in **overcrowding**

Municipalities

- Decrease in **non-emergent 911 calls**
- Cost Savings to **Tax Payers**

Healthcare  
Insurance  
Plans

- Ability to identify **high risk, high cost patients**
- Increase **Prevention efforts**



# Challenges:

- **Sustainability of financial resources for continuation and growth of the program**
- **Needing more assistance for the increased demand of the program**
- **Standardization locally and Nationally for Community Medicine or Mobile Integrated Health Models**
- **Challenges with Covid-19 and Funding sources: Grants**
- **Challenges with gaining access of billing codes for reimbursement from Health Care Plans**
- **Contacting high volume callers who have no contact number or address to identify them after a 911 has ended.**

# Current Projects:

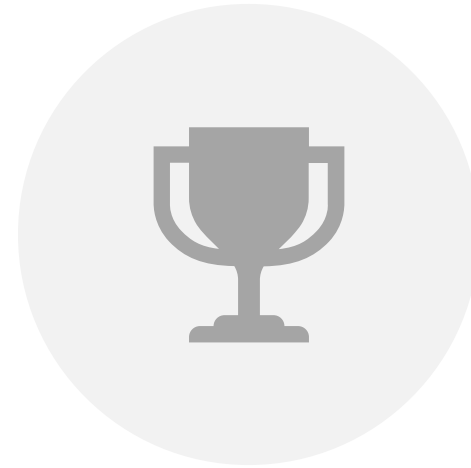
- **Becoming MEDICAID-AHCCCS Providers for reimbursement of services for sustainability of the PAS Program through the Treat and Refer Program**
- **Becoming Credentialed Providers with the Phoenix VA for Veterans Services through VA Tele-Medicine Program**
- **Participating in the Opioid Task Force for the City of Tempe and the efforts to Awareness of the Opioid Epidemic in the state of AZ**
- **Participating in the Age Friendly and Dementia Friends efforts in the City of Tempe**
- **Participating in the Frequent Users Systems Engagement (FUSE) Group for City of Tempe**

\* Arizona Health Care Cost Containment System -AHCCCS

# Recognition:



**2020 EMS10 JEMS AWARD FROM: -**  
JOURNAL OF EMERGENCY MEDICAL  
SERVICES



2021 IMAGE TREND HOOLEY AWARD  
FINALIST

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