

# The Arizona Prescription Drug Misuse and Abuse Initiative

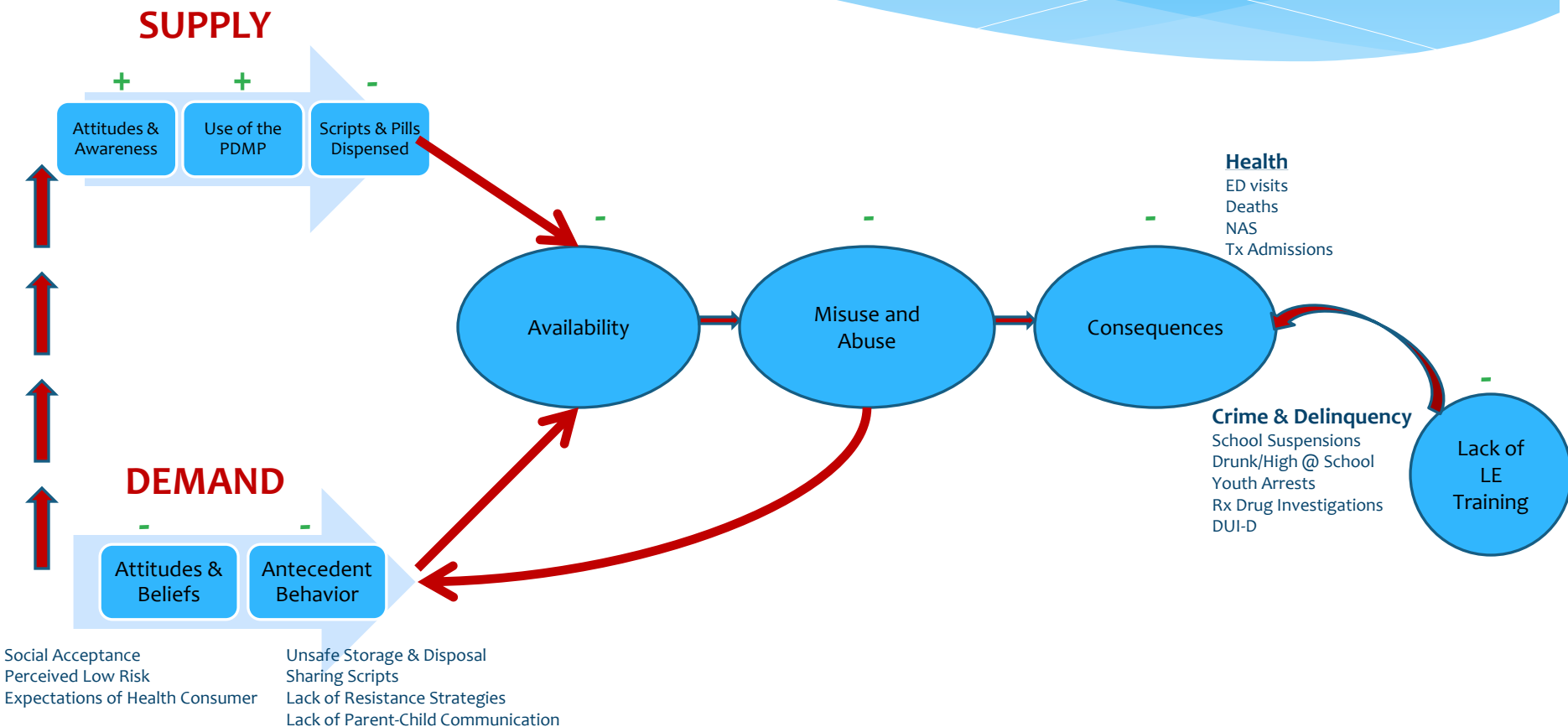
**A Multi-Systemic Approach for Reducing Health and Criminal Justice Consequences**



**Pinal County Year 1 Progress**

# Evaluation: Conceptual Framework

Expected Increases (+) and Decreases (-)



# Strategies

METHOD	MODE # Reached and Type Used for Process Evaluation
Promote PDMP Sign Up & Use	Education & Training
	Report Cards
	Email Blasts
	Certificate Awards
	Letters
	Door-to-Door
Promote Proper Storage and Disposal Methods	Education & Training (Rx360 Curriculum)
	Permanent Drop Boxes and Take-Back Events
	Media
	Community Events
	Patient Handouts
Promote Responsible Prescribing	Education & Training
	*Best Practice Consensus Meetings and Documents
	*Board and Professional Organization Endorsement
	Email Blasts
Enhance Law Enforcement Practices	Report Cards
	Education & Training (Rx Drug Crimes Curriculum)
Increase Public Awareness and Patient Education	Efficient Reporting System
	Parent and Youth Education & Training (Rx360 Curriculum) - Risks and resistance strategies
	*Patient Education - risks and benefits; adherence to treatment; pain management expectations; available alternatives
	Media
*Enhance Assessment and Referral to Treatment	Community Events
	Education & Training

# Impact Evaluation

## CHANGES IN KNOWLEDGE, ATTITUDES, AWARENESS & BELIEFS

Prescriber awareness and attitudes about Rx drug misuse, the PDMP and prescribing habits

Public awareness of drop box locations and take-back events

Knowledge of proper storage and disposal methods

Beliefs about the risks of Rx drug misuse (youth and adult)

Youth attitudes about parent disapproval of Rx drug misuse

Law Enforcement Awareness and Knowledge of Rx drug Crimes

## CHANGES IN BEHAVIOR

PDMP sign ups for prescribers, pharmacists and law enforcement

PDMP use by prescribers (ratio relative to scripts and dosage)

Number of scripts and pills for opioids, benzodiazepines and carisoprodal

Total lbs collected in drop-boxes and take-back events

Proper storage and disposal methods reported by the public

Youth obtaining Rx drugs from home/family/friends

Parent-child communication about the risks of Rx drug misuse

Parent-child communication about resistance strategies for saying no to Rx drug misuse

Use of resistance strategies in youth

Health Consumers having informed discussions with prescribers prior to Rx drug treatment

# Outcome Evaluation

## PRIMARY OUTCOMES

Self-reported Rx drug misuse (youth only; lacking adult data)

Youth polysubstance behavior involving Rx drugs and alcohol

## FINAL OUTCOMES

### Health

Opioid-related Emergency Department visits

Rx narcotic overdose deaths

Babies born with Narcotic Abstinence Syndrome (NAS)

Opioid-related Tx admissions  
(expect initial spike, then plateau, followed by decrease)

### Crime and Delinquency

Youth substance-related consequences  
(e.g., school suspensions, showing up drunk/high at school, arrests)

Rx drug-related investigations and arrests  
(expect initial spike, then plateau, followed by decrease)

Rx drug-related blood/urine analyses  
conducted for DUI offenses

DUI-D arrests

DUI-D arrest : conviction ratio

# Process Evaluation

- \* 16 drop boxes are operational in Pinal County and 6 take-back events were held, **collecting 1,550 lbs**
- \* **Casa Grande Regional Medical Center, Banner Ironwood and Florence Hospital at Anthem** are implementing ED Guidelines
- \* Over **350 prescribers** are receiving quarterly report cards
- \* **75 professionals** have received comprehensive Best Practice training or door-to-door approach
- \* **201 Law Enforcement Officers** have received Rx Crimes curriculum
- \* **1,951 youth** and **441 adults** have received the Rx360 curriculum
- \* **5,096 people** have been reached via community events
- \* Over **175,749 people** have been reached via public messaging and media methods

# Preliminary Impact Evaluation

**Pinal County Year 1 Results**

# Rx360 Adult Curriculum

**Pinal County Year 1 Results for Changes in Adult  
(Parents) Knowledge, Attitudes, Awareness and Beliefs**



### Pre-Post Efficacy Test of the Rx360 Curriculum

t-test for Equality of Means

n=437 pre-test; n=416 post-test

	$\mu$ Pre-Pilot	$\mu$ Post-Pilot	p value (2-tailed)	%Change in Responses Indicating Agree/Strongly Agree	Significant Increase	Interpretation
<b>Q1: Prescription drug abuse is a serious problem for youth in the county</b>	4.46	4.82	< .001	4.79%	<b>Yes</b>	Awareness about Rx drug problems increased
<b>Q2: It is dangerous to misuse prescription drugs</b>	4.76	4.89	< .001	0.81%	<b>Yes</b>	Beliefs about misusing Rx drugs increased
<b>Q3: Prescription drugs are as dangerous as 'street drugs' like heroin or cocaine</b>	4.40	4.57	0.02	2.34%	<b>Yes</b>	Awareness about the risks of Rx drugs increased
<b>Q4: It is important to talk to my kids about the risks of prescription drug abuse</b>	4.74	4.89	< .001	1.02%	<b>Yes</b>	Attitudes about the importance of talking to kids increased (pre-cursor to desired parent-child communication behavior)
<b>Q5: I feel like I know enough about prescription drugs to talk to my kids about the risks</b>	3.67	4.40	< .001	30.01%	<b>Yes</b>	Knowledge of Rx drug risks increased (pre-cursor to desired parent-child communication behavior)
<b>Q6: It is important to teach my kids specific strategies to say "no" to prescription drug abuse</b>	4.70	4.85	< .001	0.92%	<b>Yes</b>	Attitudes about the importance of resistance strategies increased
<b>Q7: I feel like I know enough about prescription drugs to talk to my kids about saying "no"</b>	3.99	4.46	< .001	12.79%	<b>Yes</b>	Knowledge of resistance strategies increased
<b>Q8: I know how to properly dispose of prescription drugs to make sure that kids do not have access to them</b>	4.14	4.68	< .001	17.32%	<b>Yes</b>	Knowledge of proper disposal increased
<b>Q9: I know how to properly store prescription drugs to make sure that kids do not have access to them</b>	4.23	4.70	< .001	12.93%	<b>Yes</b>	Knowledge of proper storage increased

Note: Items were collected using a 5 point Likert scale; 1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree

# Rx Diversion Crimes Curriculum

**Pinal County Year 1 Results for Changes in Law Enforcement  
Knowledge, Attitudes, Awareness and Beliefs**

**Pre-Post Efficacy Test of the Rx Crimes Training Course**

t-test for Equality of Means

n=140 pre-test; n=136 post-test

	$\mu$ Pre-Pilot	$\mu$ Post-Pilot	p value (2-tailed)	Significance	Interpretation	Suggested Changes
<b>Prescription drug abuse is a serious problem in Arizona</b>	4.76	4.86	0.06	Approaching	Awareness about Rx drug problems increased, but not enough for solid statistical significance; Ceiling effect - most already thought it was very dangerous prior to the training	Unnecessary question - replace or eliminate
<b>Prescription drug abuse is a serious problem in the jurisdiction where I work</b>	4.56	4.71	0.05	<b>Yes</b>	Beliefs about the pervasiveness of local Rx drug abuse increased	
<b>Law enforcement officers play an important role in prescription drug diversion investigations</b>	4.45	4.85	0.00	<b>Yes</b>	Attitudes about the importance of law enforcement involvement increased	
<b>This training will help me do a better job in drug diversions investigations</b>	4.45	4.71	0.00	<b>Yes</b>	Attitudes about the training content's practical application increased (proxy for knowledge gain)	

Note: Items were collected using a 5 point Likert scale; 1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree

**Pre-Post Efficacy Test of the Rx Crimes Training Course**

Mann Whitney U-test for Testing Correct Response

n=140 pre-test; n=136 post-test

	<b>% correct pre-test</b>	<b>% correct post-test</b>	<b>p value</b>	<b>Significance</b>	<b>Interpretation</b>	<b>Suggested Changes</b>
<b>Which of the following is recommended for successful prosecution of prescription fraud?</b>	92.7	96.9	.119	No	Knowledge of contact with doctors and pharmacist statements did increase, but not enough for statistical significance; Ceiling effect - most already knew this contact prior to the training	Keep content information but consider another question for measuring knowledge assessment
<b>Which of the following correctly describes how HIPPA applies to prescription fraud investigations?</b>	32.1	48.5	.007	<b>Yes</b>	Knowledge that HIPPA violations never apply with fraud increased	Knowledge level still low (i.e., below 50%); HIPPA component needs specific attention in future trainings
<b>Which is the appropriate statute for charging someone in possession of Oxy without a valid prescription?</b>	74.3	79.4	.330	No	Knowledge of statute 13-3408 increased slightly, but not enough for statistical significance	Drug offense statutes need more attention in future trainings

**Note:** Items were collected using a 4 item multiple choice format

# Prescriber Behavior

**Pinal County Year 1 Results for PDMP Sign Up and Use  
and Outlier Prescribing**

# PDMP

- \* **PDMP sign up has increased 2500%** for law enforcement (from 1 to 26), 89% for prescribers and 189% for pharmacists in Pinal County
  - \* 28% of prescribers are signed up for the PDMP in Pinal County vs. 23% at the state
- \* **PDMP use has increased 14%** for prescribers in Pinal County
  - \* **Increased 18.4%** for ED Prescribers & **13.5%** for Non-ED Prescribers
  - \* **Number of prescribers making the queries** increased 43%
    - \* **Increased 80%** for ED Prescribers & **39.6%** for Non-ED Prescribers

**PINAL COUNTY PDMP**

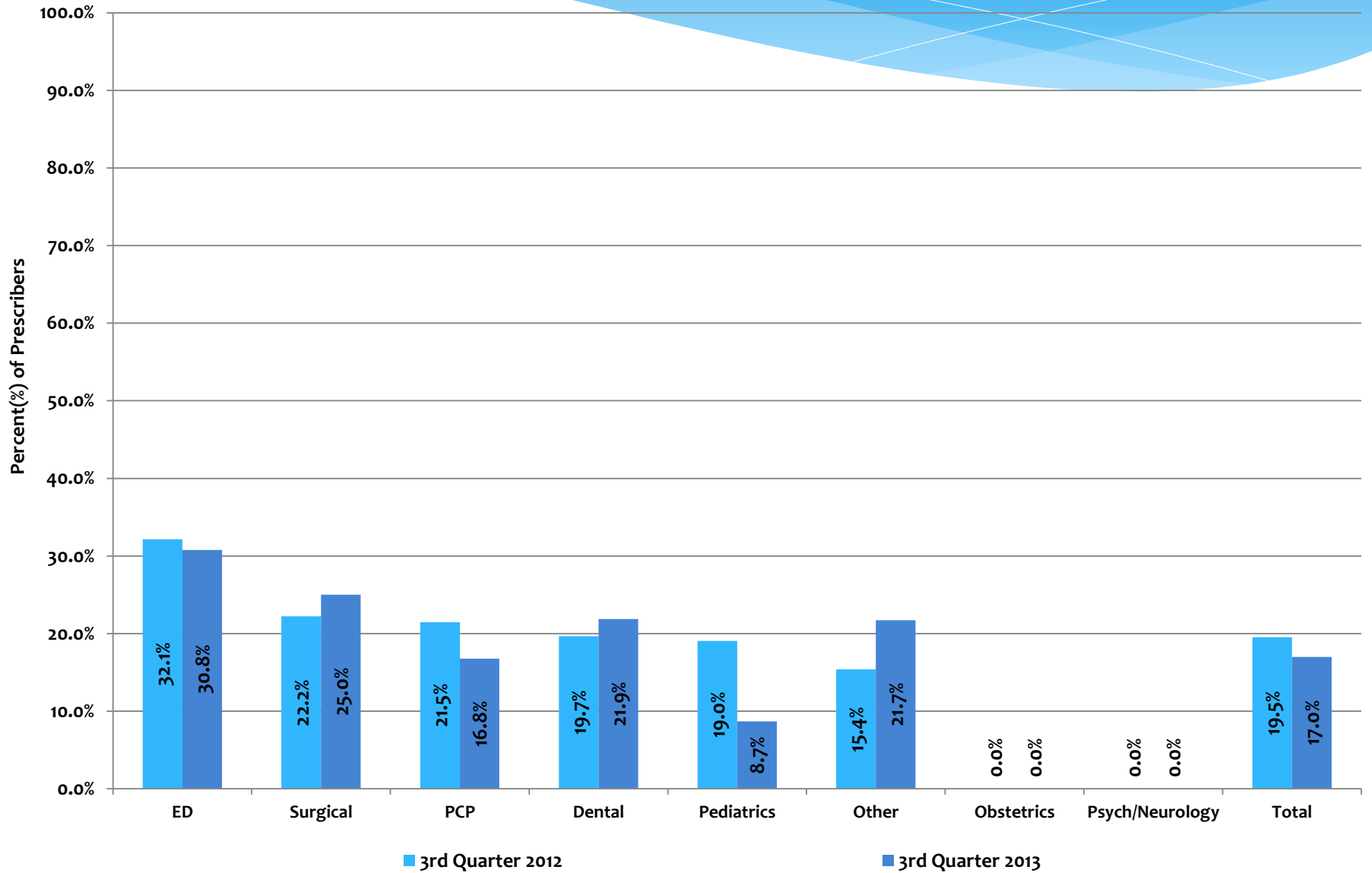
Queries	ED			Non-ED		
	3rd Quarter 2012	3rd Quarter 2013	% Change	3rd Quarter 2012	3rd Quarter 2013	% Change
<b>Mean</b>	72.8	47.9	<b>-34.2%</b>	95.0	77.2	<b>-18.7%</b>
<b>Average per Month</b>	24.3	16.0	<b>-34.2%</b>	31.7	25.7	<b>-18.7%</b>
<b>Average per Week</b>	6.1	4.0	<b>-34.2%</b>	7.9	6.4	<b>-18.7%</b>
<b>Minimum</b>	10	5	<b>-50.0%</b>	1	1	<b>0.0%</b>
<b>Maximum</b>	175	128	<b>-26.9%</b>	1943	2203	<b>13.4%</b>
<b>Prescribers with Controlled Prescriptions</b>	27 (1,930 Prescriptions)	25 (2,332 Prescriptions)	<b>-7.4%</b>	296 (54,034 Prescriptions)	328 (57,312 Prescriptions)	<b>10.8%</b>
<b>Prescribers Making PDMP Queries</b>	5 (364 Queries)	9 (431 Queries)	<b>80.0%</b>	53 (5,035 Queries)	74 (5,715 Queries)	<b>39.6%</b>
<b>Percent Prescriber with Controlled Prescriptions Making Queries</b>	14.8%	32.0%	<b>116.0%</b>	14.9%	21.0%	<b>41.5%</b>
<b>Queries/Scripts Ratio</b>	18.9%	18.5%	<b>-2.0%</b>	9.3%	10.0%	<b>7.0%</b>
<b>Prescribers without Controlled Prescriptions Making PDMP Queries (# of prescribers)</b>	1	1	0.0%	9	5	<b>-44.4%</b>
<b>Total Queries</b>	364	431	<b>18.4%</b>	5035	5715	<b>13.5%</b>

**Individual Pinal ED Prescriber Query Activity**

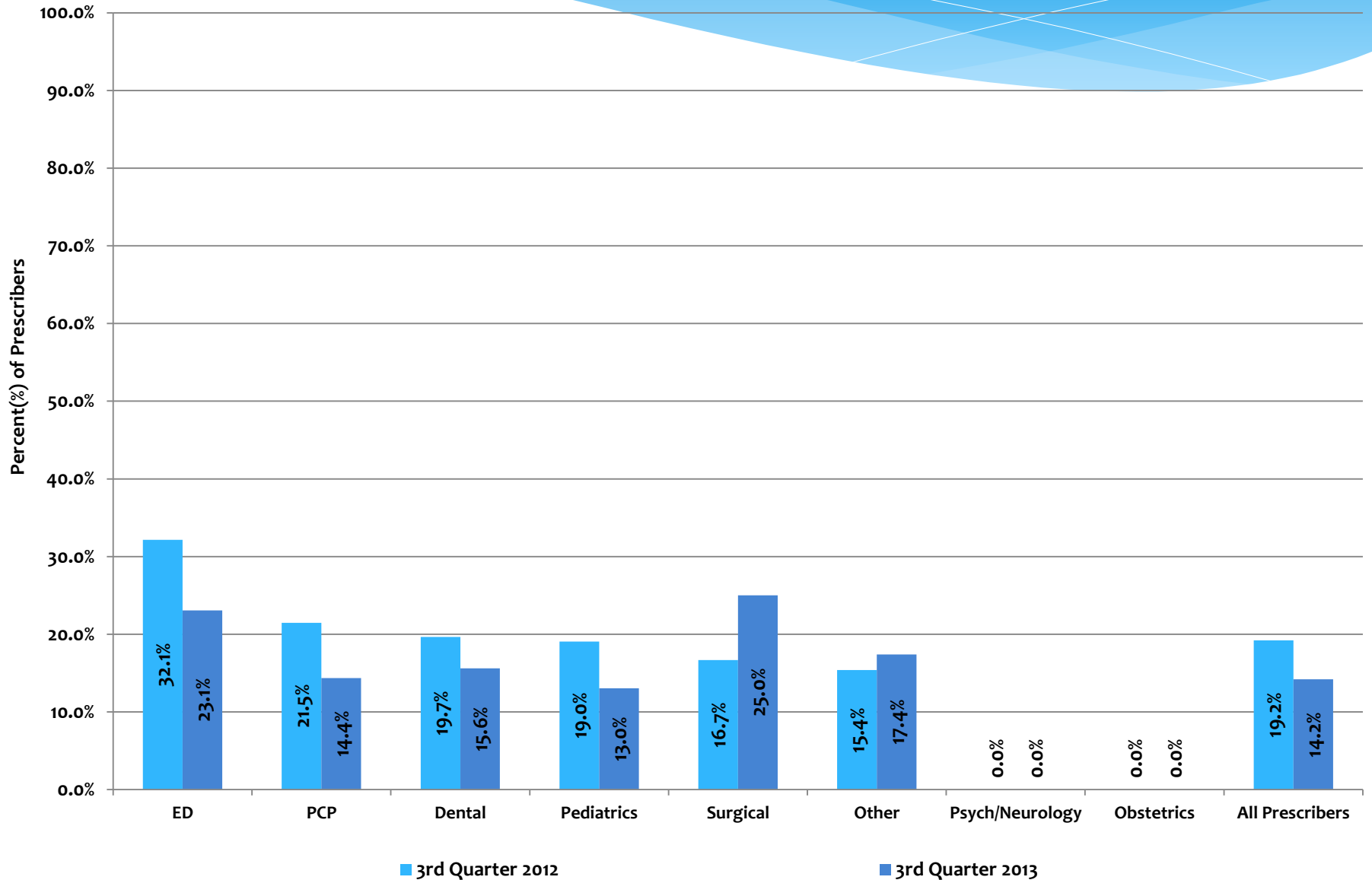
	3rd Quarter 2012			3rd Quarter 2013			Increase/ Decrease in Number of Queries
	Controlled Prescriptions	Queries	Queries/Scripts Ratio	Controlled Prescriptions	Queries	Queries/Scripts Ratio	
<b>ED1</b>	71	59	83.10%	0	0	0.00%	-
<b>ED2</b>	204	175	85.78%	284	128	45.07%	-
<b>ED3</b>	203	0	0.00%	175	11	6.29%	+
<b>ED4</b>	0	10	0.00%	0	24	0.00%	+
<b>ED5</b>	0	0	0.00%	203	57	28.08%	+
<b>ED6</b>	0	0	0.00%	49	5	10.20%	+
<b>ED7</b>	64	22	34.38%	31	52	167.74%	+
<b>ED8</b>	248	98	39.52%	238	75	31.51%	-
<b>ED9</b>	0	0	0.00%	100	46	46.00%	+
<b>ED10</b>	127	0	0.00%	167	33	19.76%	+
<b>Total</b>	917	364	39.69%	1247	431	34.56%	+



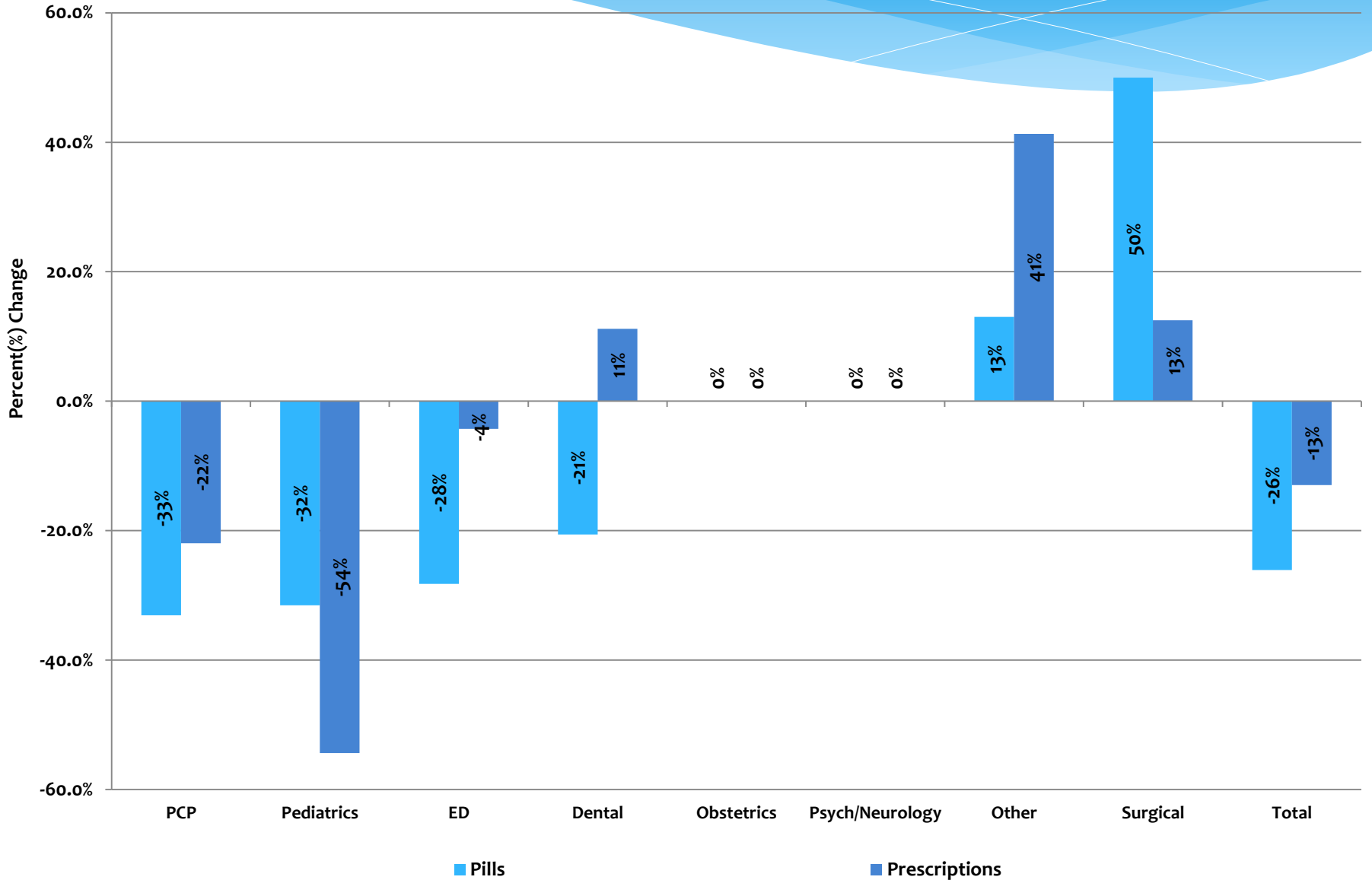
# Percentage of Pinal County Prescribers Identified as Outliers (>1 SD Above Mean) for Controlled Substance Prescriptions



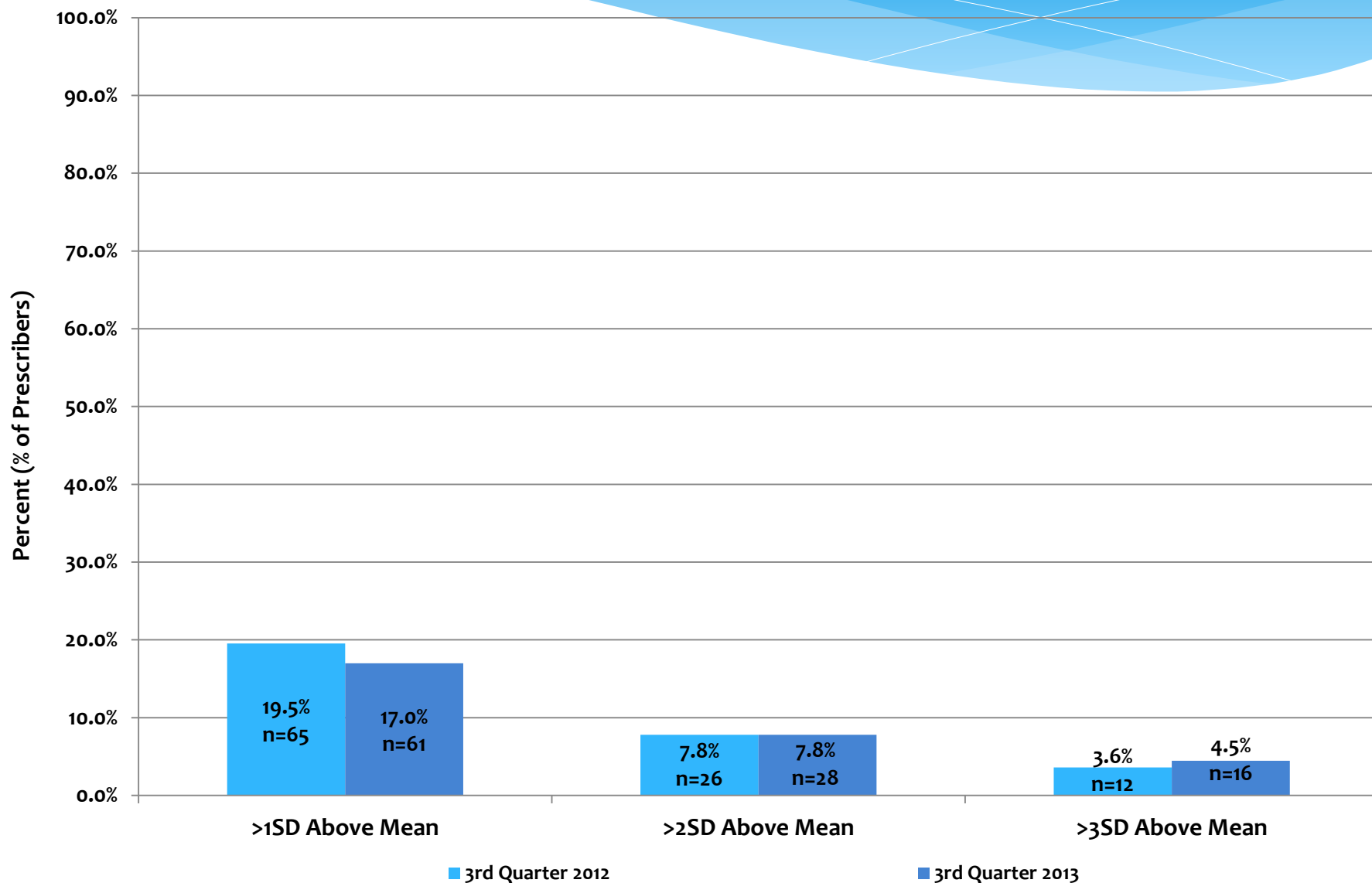
# Percentage of Pinal County Prescribers Identified as Outliers (>1 SD Above Mean) for Controlled Substance Pills



# Percentage Change in Pinal County Prescribers Identified as Outliers (>1 SD Above Mean) 3rd Quarter 2012-3rd Quarter 2013



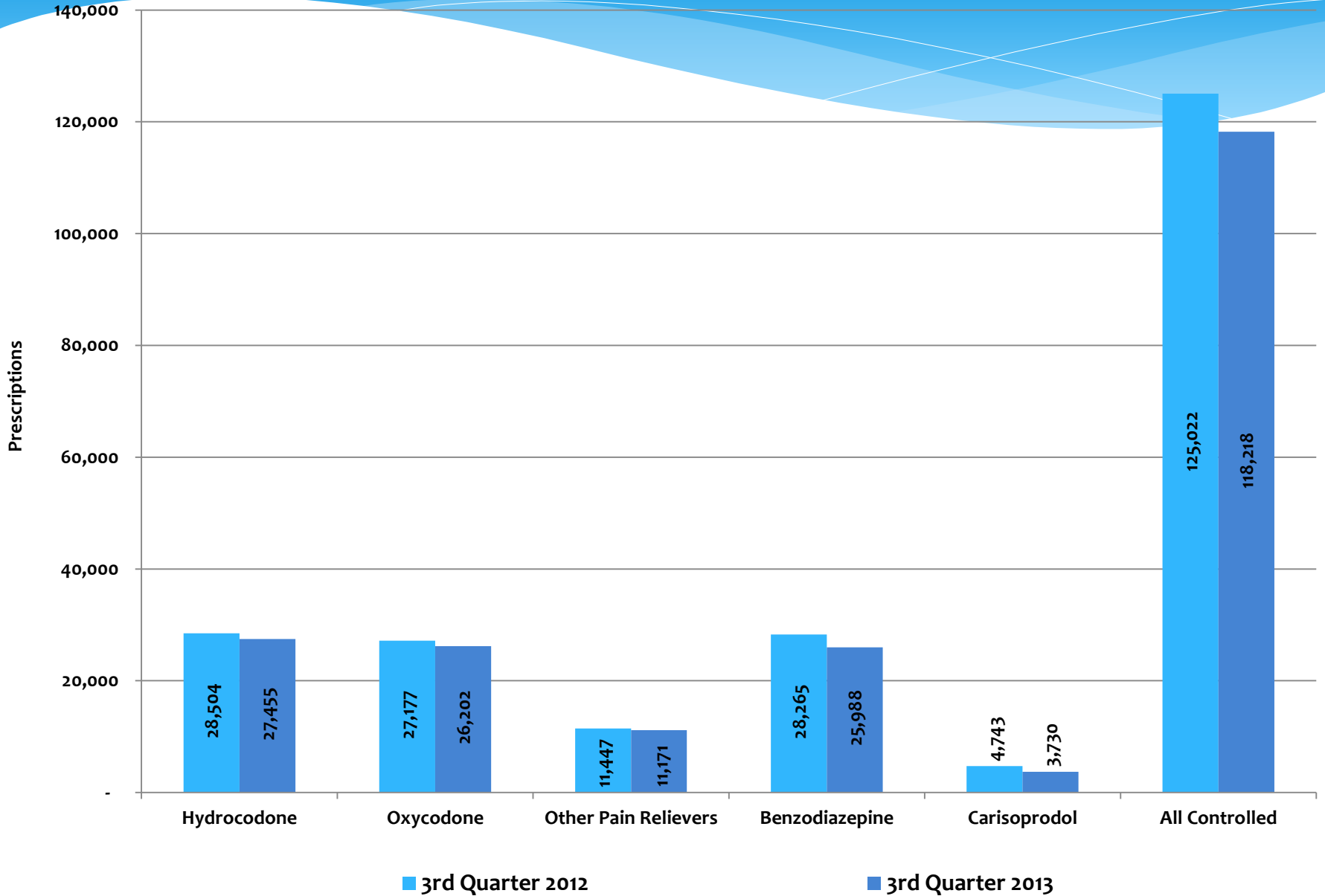
# Percentage of Pinal County Prescribers Identified as Outliers (>1 to >3 SD Above Mean) for Controlled Substance Prescriptions



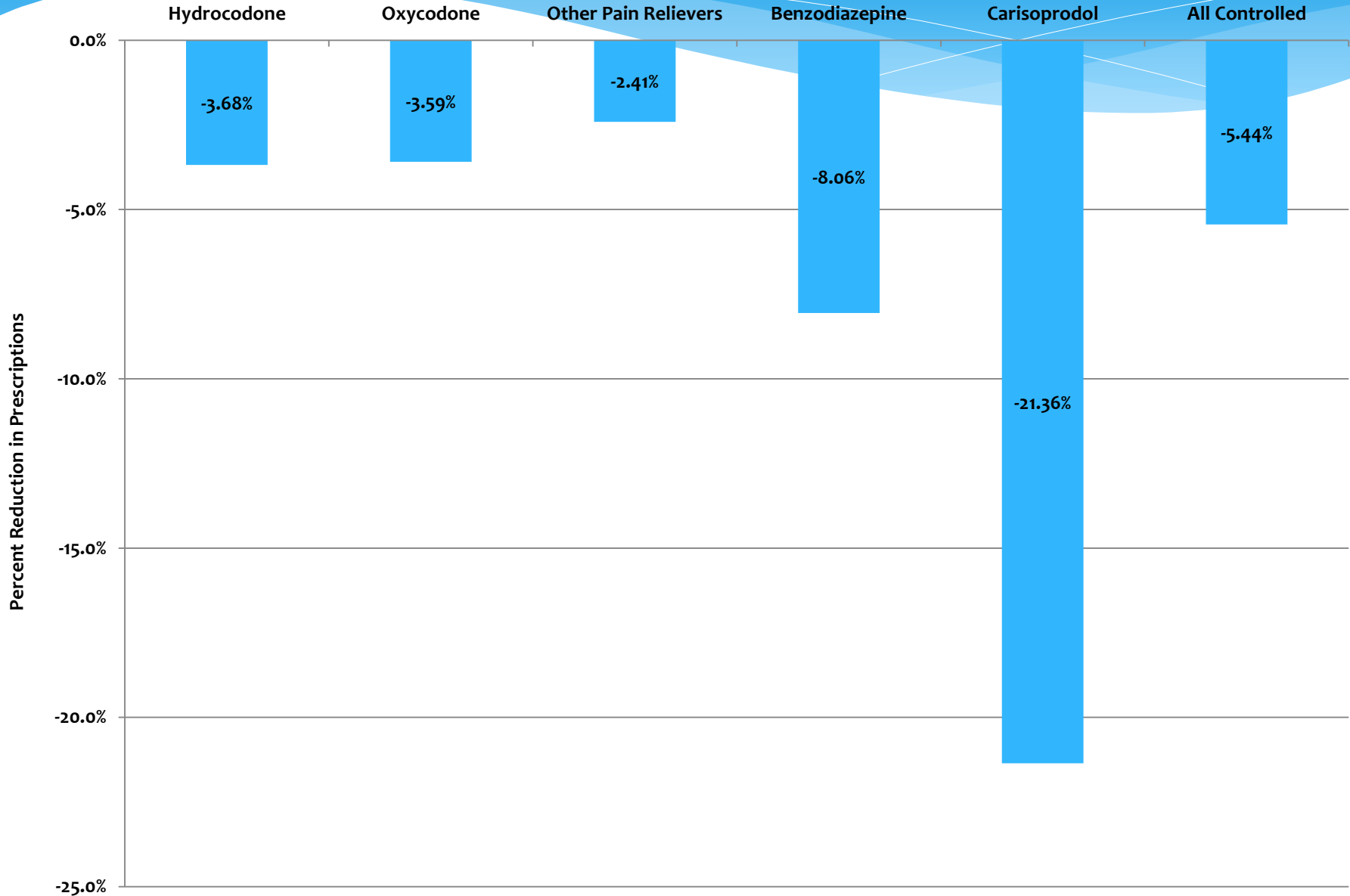
# Prescriber and Pharmacist Behavior

**Pinal County Year 1 Results for Controlled Substances  
Dispensed**

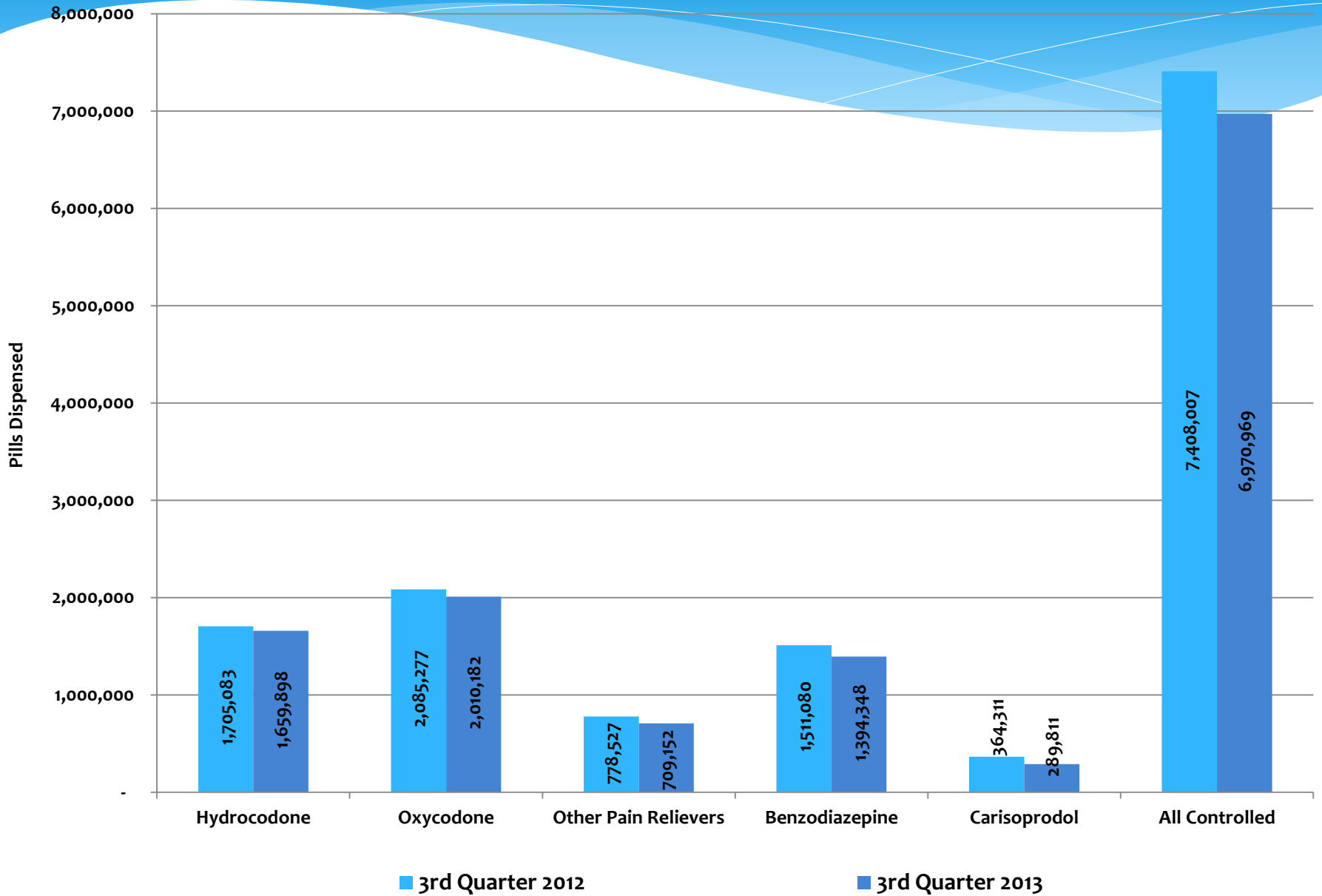
# Controlled Substance Prescriptions in Pinal County



# Percent Change in Pinal County Controlled Substance Prescriptions

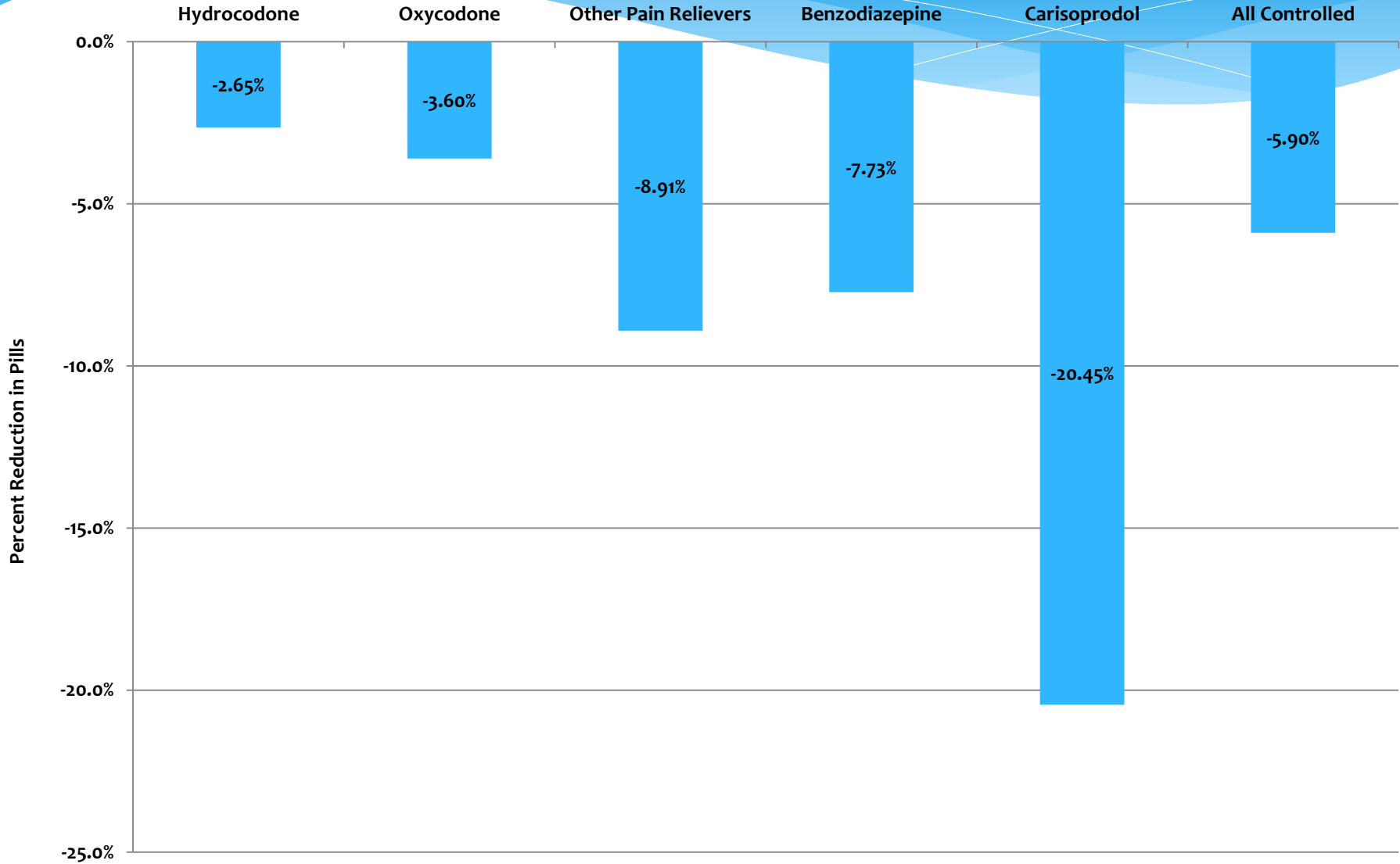


# Controlled Substance Prescription Pills in Pinal County





# Percent Change in Pinal County Controlled Substance Prescriptions Pills



# Lessons Learned (Already)

- \* **PDMP needs improvement**

- \* Not real-time
- \* Online sign-up an improvement but mandatory tutorial still a roadblock
- \* Physicians asking for ability to have **office designee**

- \* **Reimbursement/Patient Satisfaction issue in ED**

- \* **Need for Community Prescriber Guidelines**

- \* **Need for Patient Education**

- \* **Referral to Tx methods challenging**

- \* **Report cards**

- \* Category groupings have been challenging, especially in small areas
- \* Need more rigorous method of establishing **“outliers”**

- \* **RMS systems presenting challenges for systematic Rx crimes flagging system**

- \* **Some difficulty reaching adults with Rx360 curriculum**

# Next Steps

- \* **Patient Education** (e.g., alternatives, adherence to Tx, pain expectations, contracts)
- \* **PCP and Community Prescriber Guidelines** (ETA: March forum)
- \* **Prescriber Training Modules**
- \* **Referral to Tx process**
- \* **Addressing unintended consequences**
  - \* Pharmacy/Prescriber Communication
  - \* Dysphoria and Desperation
  - \* Shift to Heroin
- \* **Curriculum piece for Pharmacy and Medical student training**
- \* **Continued endorsement of Boards and Professional Organizations**
- \* **Legislation – Office Designee; Good Samaritan Law**
- \* **New Counties and Partnership for Success Grant**


# Phase II

- \* Continue using **Rx360** (new versions) to reach parents, youth and community members
- \* Continue **community events** and **media messaging**
- \* Continue push for **PDMP** and door-to-door awareness approach
- \* Help disseminate **Community Guidelines** and **Patient Education** once developed
- \* **Help new counties** with your existing methods/materials and your lessons learned
- \* Continue **Medical Task Force** group to brainstorm new ideas for reaching prescribers and referral to Tx

# Take Away Message

## As a result of the efforts of Pinal County in Year 1 of the Rx Drug Misuse and Abuse Initiative:

- \* Adults are **more aware** that Rx drug misuse is a problem
- \* Knowledge about the **risks** of Rx drug misuse increased
- \* Knowledge of **proper storage and disposal** methods increased
- \* Parents have recognized the importance of **talking to their kids** about Rx drug misuse and of teaching their kids **specific resistance strategies**
- \* Parents have **gained significant knowledge** in how to talk to their kids about the risks of Rx drug misuse and specific resistance strategies
- \* Law Enforcement are **more aware** that Rx drug misuse is a problem in their jurisdictions
- \* Law Enforcement have recognized the importance of their role in **Rx drug diversion investigations**
- \* Knowledge of HIPPA applications during **Rx fraud investigation procedures** has increased
- \* **PDMP sign up** and **use** has increased
- \* The number of prescribers identified as **outliers** has decreased
- \* The number of **scripts** for controlled substances and the **amount of pills** has decreased



**“Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.”**

**--Margaret Mead**

# Contacts

For additional information, please visit our website <http://www.azcjc.gov/acjc.web/rx/default.aspx> or contact:

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