

Michigan's PDMP Transformation

November 18, 2019 Kim Gaedeke, Chief Deputy Director Department of Licensing & Regulatory Affairs <u>GaedekeK@Michigan.gov</u> | 517-243-5044

Agenda

- Establishment of the Bureau of Professional Licensing
- Background & Pre-MAPS Replacement
- MAPS Replacement Project
- Project Successes, Lessons Learned & Challenges
- Projects & Enhancements Since Replacement
- MAPS Updates
- The Future of MAPS
- Achieving Success



Acronyms

- **PDMP** Prescription Drug Monitoring Program
- **PMP** Prescription Monitoring Program
- **CS** Controlled Substance
- **MAPS** Michigan Automated Prescription System
- **PMP AWARxE** Appriss platform solution for MAPS
- NarxCare Appriss software tool added to PMP AWARxE for MAPS
- EMR Electronic Medical Record
- **PDS** Pharmacy Dispensation System
- **NABP** National Association of Boards of Pharmacy
- NABP PMP InterConnect (PMPi) System in place to share PDMP data with other state PDMPs
- **DTMB** Michigan Department of Technology, Management and Budget
- LARA Michigan Department of Licensing and Regulatory Affairs



Bureau of Professional Licensing

- Established in July 2015
- License and regulate over 758,000 individuals
 - 10 Occupational Licensing/Regulation Boards
 - 27 Health Professional Licensing/Regulation Boards
- Boards are advisory and determine sanctions
- Three Divisions
 - Licensing
 - Investigations & Inspections
 - Enforcement
- Enforcement Division
 - Administers Pharmacy and Drug Monitoring Section and Michigan Automated Prescription System (MAPS) Section
 - Investigates overprescribing, over dispensing, and drug diversion



- System contains over 100 million records
- Data is maintained for 5 years
- Required reporting of dispensed CS Schedules 2-5 from:
 - Prescribers who dispense
 - ➢ Pharmacies
 - ➢ Veterinarians

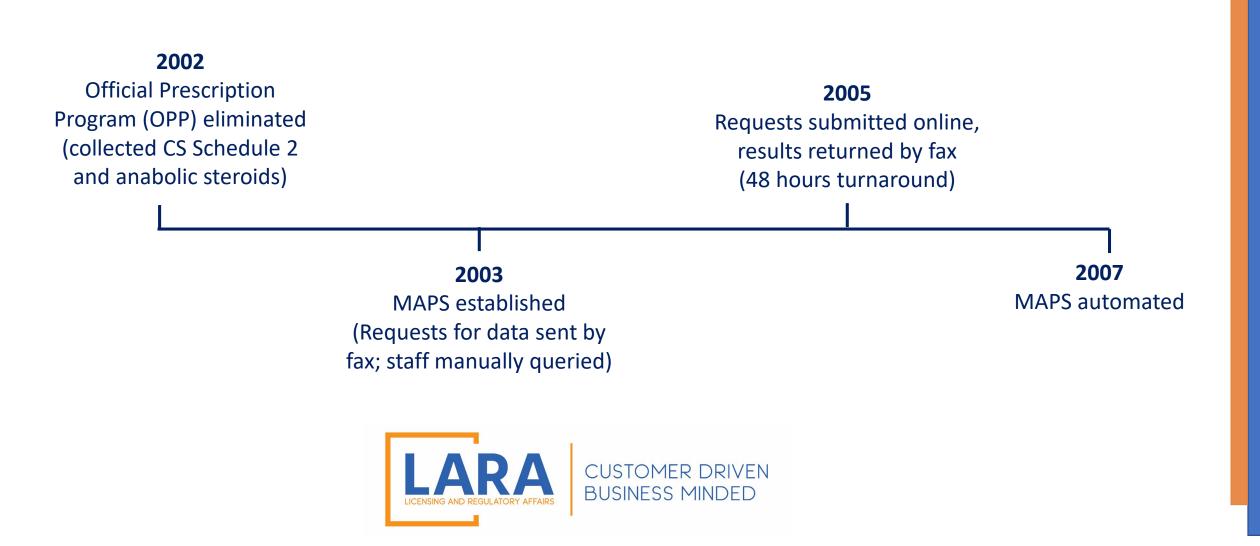


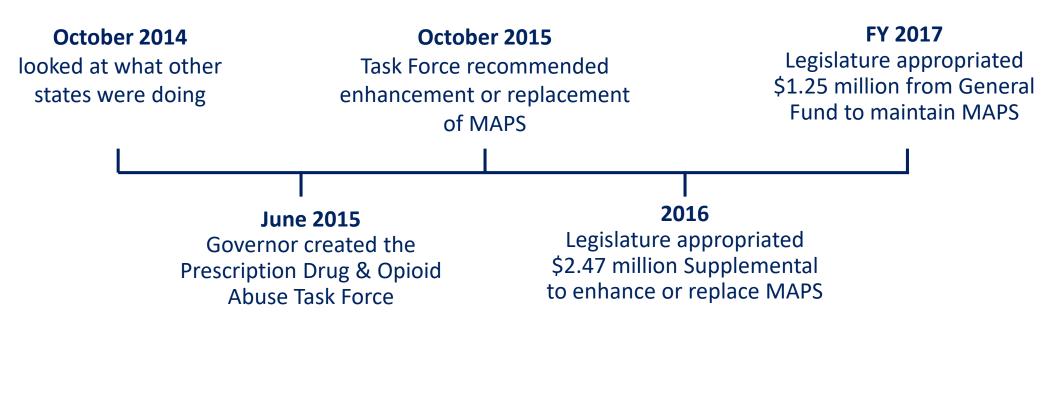
	Total CS Prescriptions Dispensed	% Change from Previous Year
2007	17,007,858	
2008	17,400,640	2.31%
2009	17,876,684	2.74%
2010	18,954,172	6.03%
2011	19,763,680	4.27%
2012	20,991,020	6.21%
2013	20,728,216	-1.25%
2014	20,904,764	0.85%
2015	21,472,326	2.71%
2016	21,092,674	-1.77%
2017	19,943,203	-5.45%
2018 (Updated Nov 5, 2019)	17,623,754	-11.63%



	Total Opioid Prescriptions Dispensed	% Change from Previous Year
2013	9,920,288	
2014	10,301,142	3.84%
2015	10,833,681	5.17%
2016	10,507,059	-3.01%
2017	9,670,789	-7.96%
2018 (Updated Nov 5, 2019)	8,449,070	-12.63%









MAPS Replacement Project - Goals

- Deploy a highly scalable PDMP platform capable of handling increased demand
- Enable integration of multi-state PDMP data and analytics within EHR and Pharmacy workflow
- Deployment of clinical tools to help clinicians engage further with their patients to include warm hand-off treatment options
- Utilize advanced analytics, machine learning technology and AI to detect patients more at risk of an overdose event and movement towards illicit drug events



MAPS Replacement Project - Overview

- MAPS replaced with new system software
 - Vendor: Appriss Health's PMP AWARxE
- Project started in October 2016 Completed on time and under budget
- All users of the old system and new users required to register with MAPS through the PMP AWARxE software
- Successfully launched and implemented on April 4, 2017
- Continue to seek feedback from Stakeholders



MAPS Replacement Project

Old MAPS – Patient Report

Michigan Automated Prescription System

		Prescri	iption Deta	il Report			
Patient Name	Birth Date	Medication		Practitioner I	Name	Dispenser Name	
Address	Issue Date	Form / Qty RX Number Payn	nent Type	Practitioner I	DEA#	Dispenser DEA#	
	Fill Date	Strength		Practitioner /	Address	Dispenser Addres	55
		HYDROCODONE BITARTRATE AND ACE	TAMIN				
	07/09/2010	TAB 150.00 Comm	ercial PBM Ins				
MI, 481460000	07/09/2010	500 MG-10 MG					
				DETROIT, MI	482023141	LINCOLN PARK, MI	481460000
		DIAZEPAM					
	07/15/2010	TAB 10.00 Comm	ercial PBM Ins				
MI, 481460000	07/15/2010	5 MG					
				WYANDOTTE, M	481920000	LINCOLN PARK, MI	481460000
		DIAZEPAM					
	07/17/2010	TAB 10.00 Comm	ercial PBM Ins				
MI, 481460000	07/17/2010	5 MG					
				WYANDOTTE, M	481920000	LINCOLN PARK, MI	481460000
		DIAZEPAM					
	07/19/2010	TAB 25.00 Comm	ercial PBM Ins				
MI, 481460000	07/19/2010	5 MG					
				DETROIT, MI	482020000	LINCOLN PARK, MI	481460000
		DIAZEPAM					
	07/23/2010	TAB 30.00 Comm	ercial PBM Ins				
MI, 481460000	07/24/2010	10 MG					
				DETROIT, MI	482020000	LINCOLN PARK, MI	481460000
		APAP/HYDROCODONE BITARTRATE					
	07/28/2010	TAB 20.00 Comm	ercial PBM Ins				
MI, 481460000	07/28/2010	325 MG-10 MG					
				FRANKLIN, MI	480250000	LINCOLN PARK, MI	481460000
		APAP/HYDROCODONE BITARTRATE					
	07/31/2010	TAB 30.00 Comm	ercial PBM Ins				
MI, 481460000	07/31/2010	325 MG-10 MG					
				DETROIT, MI	482020000	LINCOLN PARK, MI	481460000

Total records processed : 7

Run Date : 09/30/2010 12:07 PM WARNING : This report contains confidential information, including patient identifiers, and is not a public record Page 1 of 1



MAPS Replacement Project - NarxCare

- Narx Scores and Predictive Risk Scores (overdose)
 - Scores: based on algorithms, including MMEs, number of prescribers and pharmacies

Scores: Ranges from 000-999; higher scores equate to higher risk and misuse

- Red Flags
- Rx Graphs
- PDMP Data

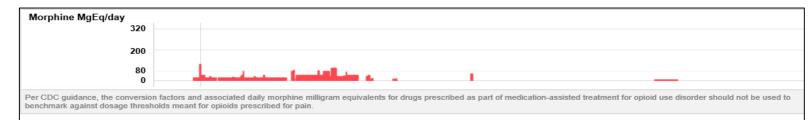


MAPS - NarxCare Report

Williams, Johnny	Age: 33M Date: 7	/17/2017	NARX REPORT	RESOURCES		
Communications			Messages: 0	Care Notes: 0 Ad	d Note	
Risk Indicators						
Narx	Scores		Overdo	se Risk Score		Red Flags (2)
Narcotic	633					>= 4 opioid or sedative dispensing pharmacies in any 90 day period in the last 2 years
Sedative	280		(r	590 ange 0-999)		>= 5 opioid or sedative providers in any year in the last 2 years
Stimulant	000					
Explain th	iese scores		Explain the	e overdose risk score		Explain these red flags
Graphs						4
Rx Graph	Narcotic	✓ Se	dative 🗹 Stim	ulant		
All Prescribers				I I.		
Prescribers						
15 - Fernandez, Bruce						
14 - Harris, Ruth						
13 - Martin, Patricia						
12 - Holmes, Helen						
11 - Nichols, Jason						
10 - King, James						
9 - Hawkins, Norma						
8 - Jenkins, Gerald			1			
7 - Ramos, Jesse						
6 - Ray, Ralph		-				
5 - Kennedy, Beverly						
4 - Lane, Arthur 3 - Ryan, Jonathan						
2 - Ryan, Jerry						
1 - Fisher, Marie	09/21	2m	6m			<u>.</u> .
	09/21	2111	011	1	У	2у

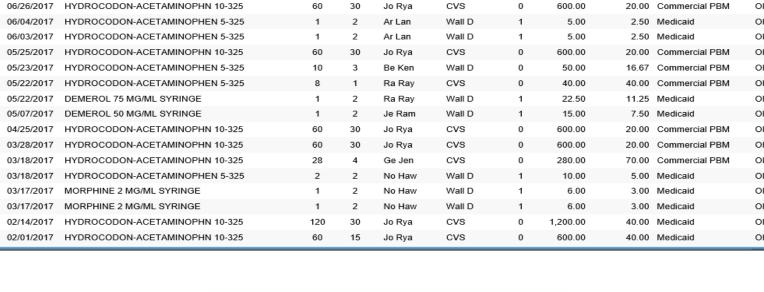


MAPS - NarxCare Report



Rx Data
Prescriptions

Prescriptio	Total Prescriptions: 34	Active MME: 900.0	0 Activ	/e MME/day:	116.43 30) Day Avg	. MME/da	y: 26.05		
Fill Date 🗢	Drug	♦ Qty ♦	Days≑	Prescriber \$	Pharmacy 🗢	Refill ≑	MgEq ≑	MgEq/Day≑	Pymt Type 🛛 🗢	PMP ≑
07/16/2017	OXYCODONE-ACETAMINOPHEN 5-325	5 20	2	Ma Fis	CVS	0	150.00	75.00	Commercial PBM	ОН
07/11/2017	OXYCODONE-ACETAMINOPHEN 5-325	5 20	7	Ma Fis	Wall D	0	150.00	21.43	Medicaid	OH
07/03/2017	MORPHINE 4 MG/ML SYRINGE	1	2	Je Rya	Wall D	1	12.00	6.00 ⁶	Medicaid	OH
07/03/2017	MORPHINE 2 MG/ML SYRINGE	1	2	Je Rya	Wall D	1	6.00	3.00	Medicaid	OH
06/26/2017	HYDROCODON-ACETAMINOPHN 10-32	25 60	30	Jo Rya	CVS	0	600.00	20.00	Commercial PBM	OH
06/04/2017	HYDROCODON-ACETAMINOPHEN 5-3	25 1	2	Ar Lan	Wall D	1	5.00	2.50	Medicaid	OH
06/03/2017	HYDROCODON-ACETAMINOPHEN 5-3	25 1	2	Ar Lan	Wall D	1	5.00	2.50	Medicaid	OH
05/25/2017	HYDROCODON-ACETAMINOPHN 10-32	25 60	30	Jo Rya	CVS	0	600.00	20.00	Commercial PBM	OH
05/23/2017	HYDROCODON-ACETAMINOPHEN 5-3	25 10	3	Be Ken	Wall D	0	50.00	16.67	Commercial PBM	OH
05/22/2017	HYDROCODON-ACETAMINOPHEN 5-3	25 8	1	Ra Ray	CVS	0	40.00	40.00	Commercial PBM	OH
05/22/2017	DEMEROL 75 MG/ML SYRINGE	1	2	Ra Ray	Wall D	1	22.50	11.25	Medicaid	ОН
05/07/2017	DEMEROL 50 MG/ML SYRINGE	1	2	Je Ram	Wall D	1	15.00	7.50	Medicaid	OH
04/25/2017	HYDROCODON-ACETAMINOPHN 10-32	25 60	30	Jo Rya	CVS	0	600.00	20.00	Commercial PBM	OH
03/28/2017	HYDROCODON-ACETAMINOPHN 10-32	25 60	30	Jo Rya	CVS	0	600.00	20.00	Commercial PBM	OH
03/18/2017	HYDROCODON-ACETAMINOPHN 10-32	25 28	4	Ge Jen	CVS	0	280.00	70.00	Commercial PBM	ОН
03/18/2017	HYDROCODON-ACETAMINOPHEN 5-3	25 2	2	No Haw	Wall D	1	10.00	5.00	Medicaid	OH
03/17/2017	MORPHINE 2 MG/ML SYRINGE	1	2	No Haw	Wall D	1	6.00	3.00	Medicaid	OH
03/17/2017	MORPHINE 2 MG/ML SYRINGE	1	2	No Haw	Wall D	1	6.00	3.00	Medicaid	ОН
02/14/2017	HYDROCODON-ACETAMINOPHN 10-32	25 120	30	Jo Rya	CVS	0	1,200.00	40.00	Medicaid	ОН
02/01/2017	HYDROCODON-ACETAMINOPHN 10-32	25 60	15	Jo Rya	CVS	0	600.00	40.00	Medicaid	ОН





MAPS – NarxCare Report (continued)

02/01/2017	HYDROCODON-ACETAMINOPHN 1	0-325	60	15	Jo Rya	CVS	0	600.00	40.00	Medicaid	ОН
01/23/2017	OXYCODONE-ACETAMINOPHEN 5-	325	60	7	Ma Fis	CVS	0	450.00	64.29	Medicaid	OH
01/12/2017	MORPHINE 2 N WML SYRINGE		1	30	No Haw	Wall D	1	6.00	0.20	Private Pay	OH
01/12/2017	MORPHINE 4 NO ML SYRINGE		1	2	No Haw	Wall D	1	12.00	6.00	Private Pay	ОН
01/10/2017	OXYCODONE-ACETAMINOPHEN 5-	325	120	30	Jo Rya	CVS	0	900.00	30.00	Commercial PBM	ОН
01/07/2017	DEMEROL 25 MG/ML SYRINGE		1	2	Ja Kin	Wall D	1	7.50	3.75	Private Pay	ОН
01/03/2017	HYDROCODON-ACETAMINOPHEN	5-325	60	8	Ja Nic	CVS	0	300.00	37.50	Medicaid	ОН
12/26/2016	HYDROCODON-ACETAMINOPHEN	5-325	60	8	Ja Nic	Wall D	0	300.00	37.50	Commercial PBM	ОН
12/11/2016	HYDROCODON-ACETAMINOPHEN	5-325	28	5	He Hol	CVS	0	140.00	28.00	Private Pay	ОН
12/07/2016	HYDROCODON-ACETAMINOPHEN	5-325	14	7	Pa Mar	CVS	0	70.00	10.00	Commercial PBM	ОН
12/07/2016	HYDROCODON-ACETAMINOPHEN	5-325	2	2	Pa Mar	Wall D	1	10.00	5.00	Private Pay	ОН
11/07/2016	HYDROCODON-ACETAMINOPHEN	5-325	10	5	Pa Mar	CVS	0	50.00	10.00	Private Pay	ОН
11/06/2016	HYDROCODON-ACETAMINOPHEN	5-325	1	2	Ru Har	Wall D	1	5.00	2.50	Private Pay	ОН
08/01/2016	OXYCODONE-ACETAMINOPHEN 5-	325	20	3	Br Fer	Wall D	0	150.00	50.00	Commercial PBM	ОН
11/12/2015	MORPHINE 2 MG/ML SYRINGE		1	30	Pa Mar	Wall D	1	6.00	0.20	Private Pay	ОН
Providers	Total Providers: 15										
Name		Address			♦ City		♦ Sta	ate 🗢	Zipeede	♦ DEA	
	•		i		Five Po	·					\$
Fernandez, E		4367 Pleasant (7175 Cozy Rab	-				OF OF		44262-681 43622-129		
Fisher, Marie	5	-				on Ferry	OF		45983-367		
Harris, Ruth Hawkins, No		2003 Stony Neo 6763 Emerald F			-	ys Corners	OF		45273-058		
Holmes, Hele		8869 Burning F		-	Apple (Frailer Court	OF		45202-979		
		9393 Lost Field	ux impasse	e		Tallel Court	OF		43654-827		
Jenkins, Ger Kennedy, Be		3099 Umber Pa	thurou		Maple Damas	010	OF		43054-827		
King, James	-	3355 Rustic Clo	,			e Crossing	OF		45430-618		
Lane, Arthur		2331 Cozy Port	-		Holiday	-	OF		45620-598		
		-		4			OF		43020-398		
Martin, Patric		7600 Shady Hid 9093 Hidden Pi	-		Fort Je East G	-	OF		43321-433		
					East G		Ur	1	43321-433	1 234040	
Nichols, Jaso					Bolmor		04	1	45070-000	0 234940	
Ramos, Jess		9166 Bright Por	nd Crescen		Belmor West A	e	OF		45970-989		
Ramos, Jess Ray, Ralph		9166 Bright Por 1467 Little View	nd Crescen Townline		West A	e kron	OF	4	43739-735	1 234849	
Ramos, Jess	se	9166 Bright Por	nd Crescen Townline Ie		West A Oaktho	e kron	OF OF	4		1 234849 5 234846	



CUSTOMER DRIVEN BUSINESS MINDED

MAPS – NarxCare Report (continued)

Pharmacies	Total Pharmacies: 6								
Name	\$	Address	\$ City	\$ State	4	Zipcode	\$	DEA	\$
CVS		5483 Gentle Impasse	Home Park	OH		43242-6009		345796	
CVS		7139 High Pond Walk	Randolph Landing	OH		45487-2143		345840	
Wall Drug		3799 Foggy Dale	Herner Corners	OH		45658-6817		345841	
Wall Drug		4543 Iron Carrefour	Powers	OH		43803-2784		345839	
Wall Drug		5639 Cotton Dale Close	Cedar Springs	OH		43423-4846		345842	
Wall Drug		8129 Easy Dell	Antiquity	OH		45300-0810		345843	
						e	Appris	s 2017. All rights i	reserved.



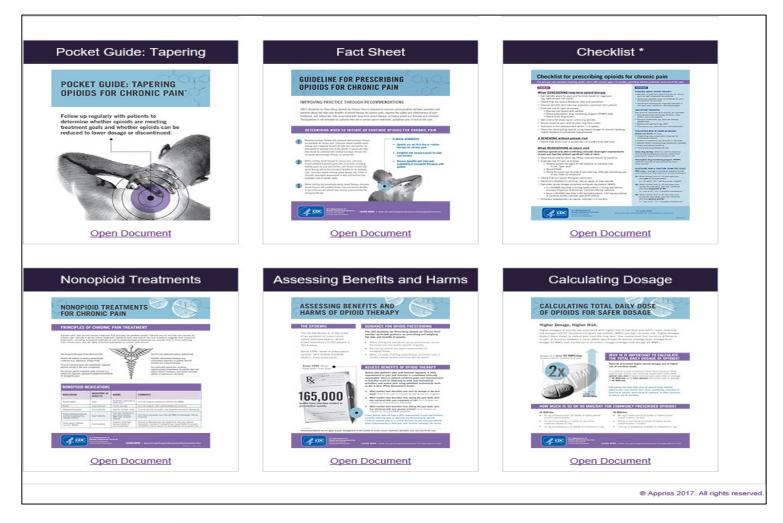
MAPS – NarxCare Resources

Menu > Patient Alerts (1)							4		PRISS'
RxSearch > Patient Request > Johnny William	ns								
Williams, Johnny Age: 33M Date:	7/17/2017 NARX REP	ORT I RESOURCES			V	•	Vai	r _X C	are™
Access to Treatment									
Rapidly find the 30 closest MAT provi The patient's zip code is pre-populate	-		Г	First	Last	Deg.	Address	City	Cour
More information here			Dr.	David	Beane	M.D.	1338 Colegate Drive Suite B	Marietta	Wash Coun
Step 1 Enter the zip code to center the search around Step 2 Click submit and pript form	45110		Dr.	Rakeshkumar	Kaneria	M.D.			Butle Coun
	Submit		Dr.	з.	Strafford	M.D., MPH	1081 Bernard Road		Clint: Coun
			Dr.	Ramalingam	Selvarajah	M.D.	1649 Brice	Reynoldsburg	Frank
Educational Resources Click the associated link and print. More inform What You Need to		pioids and Chronic Pain		Pregna	ancy a	nd	Opioic	ls	
PRESCRIPTION OPDIODS: WART VOLKED TO KNOW WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW				Women who take pain medication aware of the pos during pregnanc MAN MEDICATIONS Creat as a control to for the second second the control name to second secon	s should be sable risks y.	Times and			
Copen Document	las a famili a Lambi	PRESCRIPTION OPIOID OVERDOSE IS AN EPIDEMIC IN THE US		* **	Den Dor	cume	ent		



CUSTOMER DRIVEN BUSINESS MINDED

MAPS – NarxCare Resources





MAPS – NarxCare – Care Notes

Carol Gray, 75F		200	**************************************	
Narx Report Resources				Care Natas also anable flagging and incertia
te: 6/24/2018		Downloa	d PDF Download CSV	Care Notes also enable flagging and insertio
Gray, Carol				of an Opioid Treatment Agreement, an
Communications				emerging bonus element from CMS and elsewhere
fessages (0)				eisewhere
Care Notes (1) add note 09/27/2017 1303:57] — from Stacy Jackson, NP — This pe	dent has an opioid treatment agreement in p	Nace. opioid_treatment_agreement_91233;	di	
Risk Indicators				
ARX SCORES 0	VERDOSE RISK SCORE	ADDITIONAL		1 / 2
Narcotic Sedative Stimulant 692 581 000	640 (range C-999)	 >= 4 opicid pharmacie 2 years >= 5 opicid year in the > 100 MME 	I	
Explain these scores	Explain t	his score	members of the treatment team.	for) all my scheduled appointments with the doctor and other
Graphs			I will participate in all other	types of treatment that I am asked to participate in.
KX GRAPH 🕘 🗾 Narcosc 🗾 Sedative	Stimulant		I will keep the medicine safe lost or stolen, I understand it will no replaced at all.	e, secure and out of the reach of children. If the medicine is ot be replaced until my next appointment, and may not be
M Prescribers			I will take my medication as talking to the doctor or other member	s instructed and not change the way I take it without first of the treatment team.
VeccNers - Guisriez, Kathry - Stone, Gary - Cenis, Tria		1	I will not call between app understand that prescriptions will b team.	ointments, or at night or on the weekends looking for refills. I be filled only during scheduled office visits with the treatment
Ortiz, Frances Simpson, Martha			I will make sure I have an appointment, I will tell a member of	ppointment for refills. If 1 am having trouble making an f the treatment team immediately.
- Hudson, Jessica - Cooper, Lori 09/21 2m	Gran 1y			fice respectfully at all times. 1 understand that if I am eare of other patients my treatment will be stopped.
torphine MeEq/day 329			will be stopped.	or share it with others. I understand that if I do, my treatment

LICENSING AND REGULATORY AFFAIRS

CUSTOMER DRIVEN BUSINESS MINDED

MAPS Replacement Project - Successes

\$2.47M One-Time Appropriations FY 16-17 – MAPS Replacement/Enhancements						
\$570,000	Appriss Health full-replacement of MAPS (actual cost)					
\$1.8M	Statewide Integrations – 2-year coverage (remaining from appropriations)					
\$100,000	Additional enhancements					

	Old MAPS	New MAPS (as of 10/31/19)
Time to Query Reports	5-10 Minutes	0.4 – 0.7 Seconds
Registered Prescribers & Pharmacists	27,614	55,606
Registered Delegate Users	N/A	20,469
Staffing	13 FTEs	5 FTEs



MAPS Replacement Project – Lessons Learned & Challenges

• MAPS replacement

- More communications around registering to new system
- > Assessing staffing needs about 4 weeks before go-live

• Enhancements

- More communications around provider scorecards
- More explanation of NarxCare at implementation

Integrations

> Keep it simple, be firm, explain vendor to state relationship



MAPS Projects

- Since replacement, MAPS has completed or is working on numerous projects and enhancements, including but not limited to:
 - Licensing integration with PMP AWARxE registrations
 - Statewide Integrations with Electronic Medical Record (EMR) and Pharmacy Dispensation Systems (PDS)
 - Prescriber Report Cards (and a tutorial/video)
 - Law Enforcement Module
 - Advanced Analytics (Tableau)
 - Overdose Overlay with MAPS
 - NarxCare (and training)
 - Statewide Opioid Assessment
 - NarxCare Outcomes Study
 - Prescriber Outlier Dashboard
 - Mandatory Use Compliance Module (Mandatory Use effective June 1, 2018 in Michigan)
 - Care Notes
 - Clinical Alerts
 - Appriss Health/hc1 PDMP Data Dashboard
 - OpenBeds



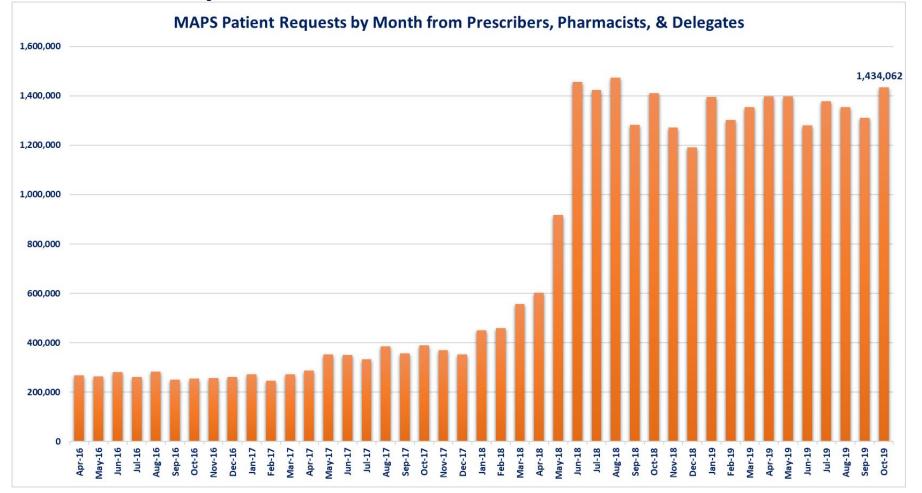
Updates - Integrations

Prior to the integration project that began in June 2017, there were only <u>2</u> systems integrated (1 EMR and 1 PDS)

MAPS Integrations (BJA and State-Funded) – as of 10/31/2019		
	Integrated	Pending Production (In-discussion, received request, or in testing)
Health System	32	7
Hospital	7	4
Physician's Office	243	267
Pharmacy (single or chain system)	28	17
TOTAL	310	295
TOTAL HEALTHCARE PROF	53,394+	4,681+



Updates – Request Counts



*Note: Includes online requests and integration requests from MAPS (Michigan) registered users



The Future of MAPS

- Sustainability
- Strength
- Ongoing innovation
- Focusing around data analytics and automation using AI and machine learning technologies
- Transforming into a clinical tool for health professionals
 - Better identifying and addressing possible SUD
 - Preventing overdose



Achieving Success

Achieving success can be done in a number of ways:

- Culture change within the clinical setting when prescribing opioids
- Reducing the potential for abuse and diversion
- Identifying SUD earlier and intervening through referral and treatment
- Saving lives

PDMPs are a great tool to help all our states achieve success in the fight of the Opioid and Prescription Drug Crisis. Through the partnership with Appriss, Michigan has gone from an outdated, stagnant system to an interactive technology solution that is making a difference and positive impact.



Questions & Thank You?

Thank you for the opportunity to share with you the successes of Michigan's PDMP transformation. Our state is proud of what MAPS has become.

Additionally, it's important to recognize and express appreciation to our administration and legislature for their ongoing support. Also huge thanks BJA, SAMHSA, CDC, and the Michigan Department of Health and Human Services for the grant funds and partnership. We also appreciate our Boards, Law Enforcement, and Health Care Associations for being engaged and involved Stakeholders.

Finally, thank you to the team at BPL/LARA who worked on the MAPS replacement and our vendor partner, Appriss Health for transforming our PDMP.

