

January 12th, 2016

PreManage ED (aka Edie)

Eliminate avoidable risk.

New Mexico **ER** is for Emergencies project

Ben Zaniello, CMO and VP of Product

Tristan Van Horne, VP of Network Development



New Mexico
Behavioral Health Collaborative



Discussion Topics

New Mexico ER is for
Emergencies project update

CMT background

PreManage platform

PreManage compliance with
Federal Law and New Mexico
State Law

[Q&A through-out, please]

“EDIE system has been an excellent tool for patient care. It allows me to better manage patients with chronic medical issues, decrease readmission rates and improve utilization.”

– Marco Hernandez, MD, FACEP, Medical Director, Hollywood Presbyterian and Prime - Sherman Oaks, Downtown L.A.

Traction

- Started by an ED social worker
- >7 years since first go-live
- OR, WA, CA, MT, NM, NH, WV, MA, +...
- >900 hospitals, UCs, clinics
- Thousands of providers
- >60 million unique visits
- **100% customer retention** since inception
- Endorsed by:



The Problem

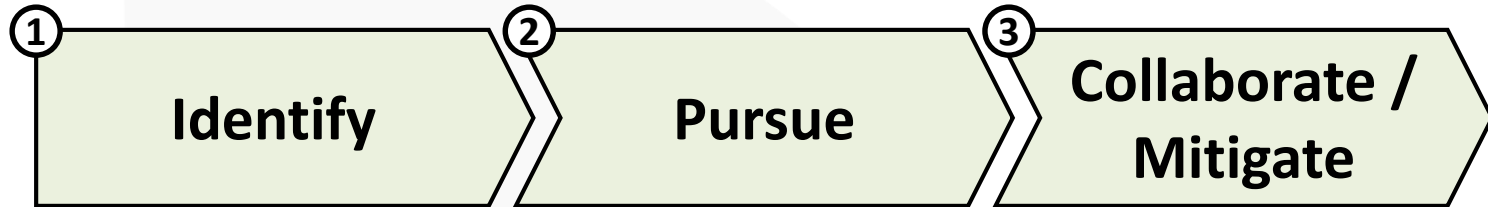
Situation

- Small number of patients generate a disproportionate volume of visits (e.g., <5% of patients w/ ~21% ED visits)
 - Many hop facilities and care settings
 - Hard to know when / how to coordinate appropriately
 - Hospitals generally reimbursed poorly for these visits

Complications

- Cross-channel / system coordination extremely difficult
 - Too much data, not enough insight
 - Poor workflow integration
- Providers and plans lack timely knowledge of where their patients are, much less which represent imminent future-state risk and require proactive engagement
 - Many transitions (ED to acute, acute to post-acute, both to home, etc.), difficult to track and communicate

Our Approach



- Real-time patient data / insights



- Real-time complex acute-encounter risk analytics

- Real-time patient-provider attribution – select the right provider(s) to engage



- Targeted, workflow-embedded notifications



- Synthesized, actionable patient insight

- Single, patient-specific care guideline, shared irrespective of provider organization / affiliation

Collaborative Care Management Network

Location / Provider / Facility / Payer agnostic

The PreManage platform facilitates communication outside of the ED, and can manage sophisticated event notification

Identification

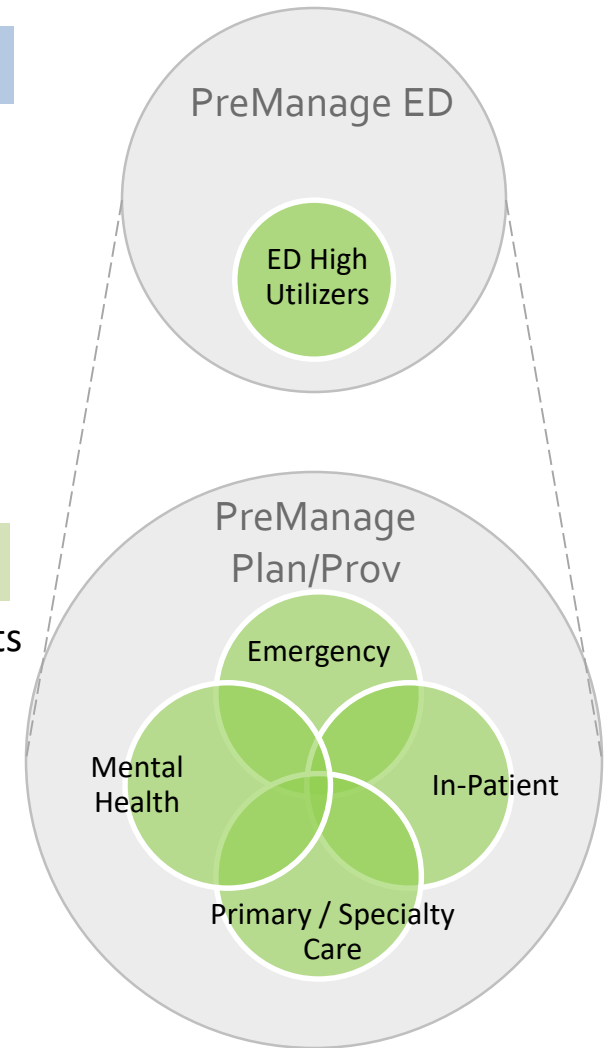
PreManage ED: Hospital Partnerships

- Notifications to ED Providers for ED/In-Patient visits
- Shared platform for ED care coordination information
 - High utilization / complex ED patients
- **Specific User Base** (ED Physicians & Care Managers)
- **Focused Population** (High Utilization / Complex ED Patients)

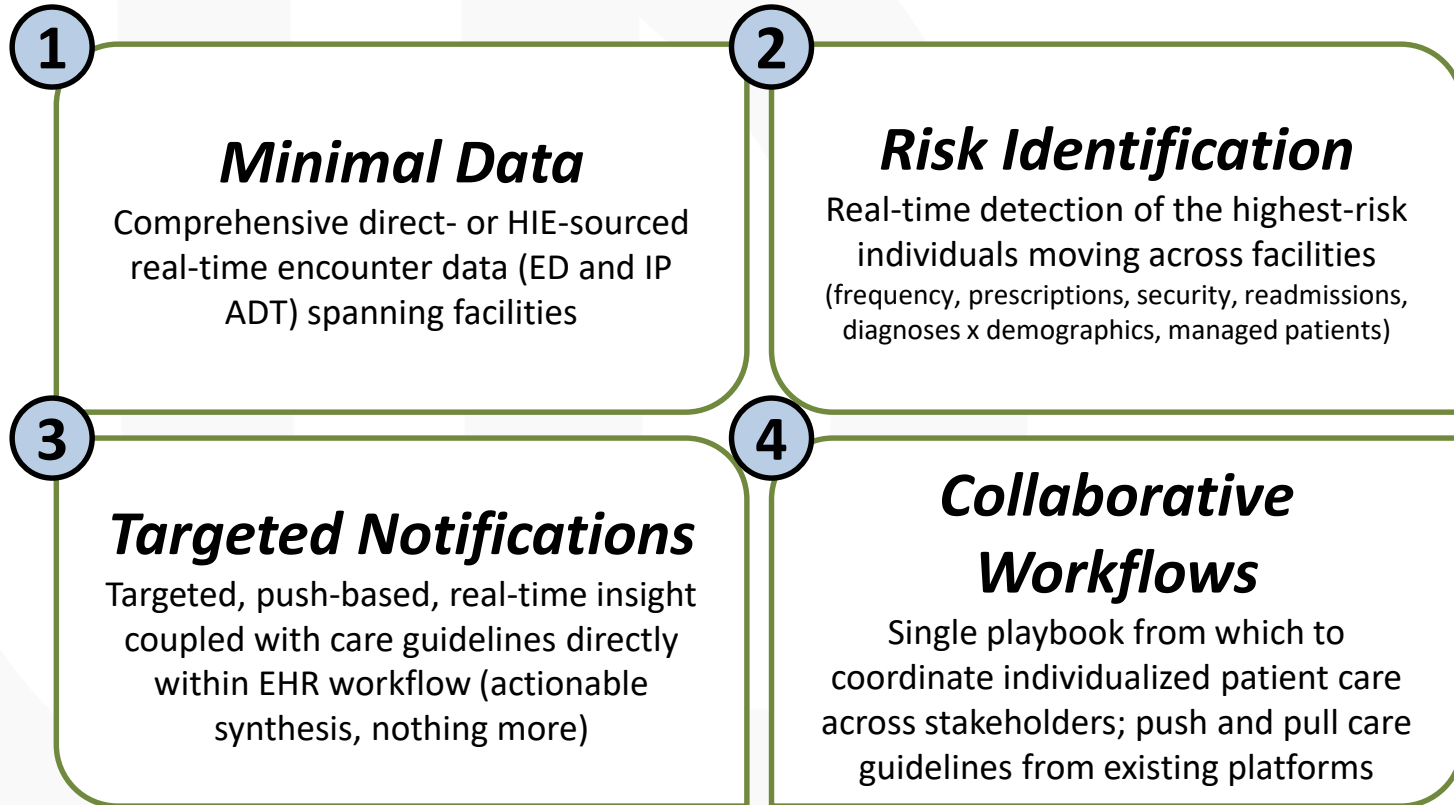
Prevention

PreManage Prov/Plan: Payer/Provider + Partnerships

- Notifications to multiple parties across ED/ In-/Out-patient visits
- Shared platform for all care coordination information; complimentary Service to PreManage ED built on same technology
- **Broad User Base** (Primary / Specialty Care, CCOs, CBOs, Health Plans, Care Coordinators, Social Workers, ED Guides, others)
- **Entire Population** (Active patient population or member base)
 - Medical Homes, Mental Health, Medical Groups, Juvenile, Security, etc.



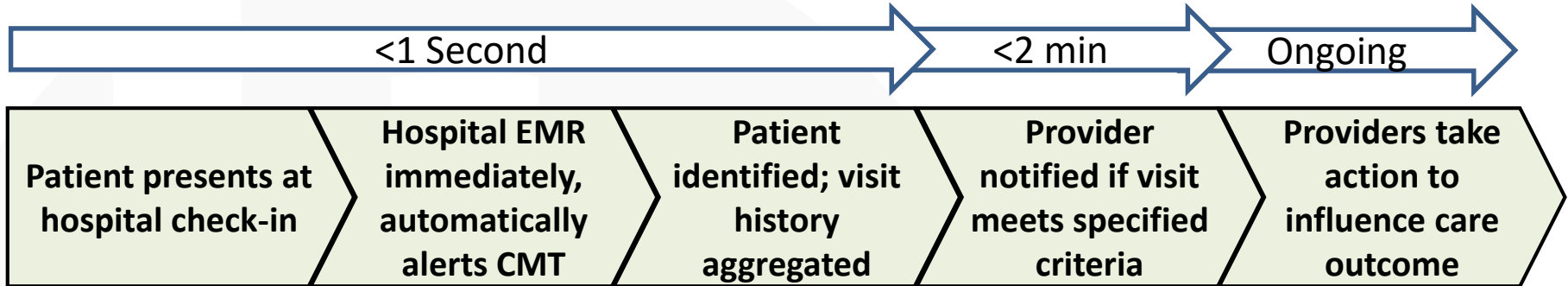
The PreManage Platform



Collaborative Care Management Network

Location / Provider / Facility / Payer agnostic

Typical workflow: Real-time situational awareness



- Patient checks in with hospital registration
- Hospital records core identification and demographic info



- PreManage directly integrated with the hospital EHR; no addt'l data entry required
- Patient registration data immediately sent from hospital to CMT



- PreManage identifies patient (even if key information missing from patient's hospital record)
- PreManage cross-references patient with prior ED and In-Patient visit history across systems



- If visit triggers a pre-set criterion, PreManage notifies provider
- Notifications contain visit history, diagnoses, prescriptions, guidelines, and other clinical meta data + patient-specific plan of care



- Provider has the information in hand before she sees patient
- Patient-provider information asymmetry is closed; able to make informed care decision
- Additional stakeholders with patient stewardship notified in order to proactively engage

Edie notifications push targeted insight directly into the provider's workflow, only when relevant, without having to be asked, and not limited to a single hospital or health system

PreManage ED ALERT 05/27/2016 04:12 AM Darwin, Charles (DOB: 02/12/1909)

This patient has registered at the **Henry Medical Center Emergency Department**. You are being notified because this patient has recommended Care Guidelines. For more information please login to EDIE and search for this patient by name.

Care Providers

Provider	Type	Phone	Fax	Service Dates
Ben A Zaniello MD	Primary Care	(206) 555-1213	(206) 555-1212	Current
Robert Osler MD	Cardiology	(206) 231-3125	(206) 231-3126	Current
Sarah Jung PHD	Psychology	(206) 782-2342	(206) 782-2343	Current

ED Care Guidelines from Henry Medical Center

Last Updated: Wed March 17 10:35:40 MDT 2016

Care Recommendation:

Patient's pain is cardiac related; please use nitroglycerin (CHF and cardiac protocols) for pain. Please do not use controlled substances in the ER unless there are new findings as patient is very sensitive to opiates.

Additional Information:

1. Please see ECG attached below for pre-existing cardiac pathology.
2. Cardiologist office responds to overnight pages.

These are guidelines and the provider should exercise clinical judgment when providing care.

Care Histories

Behavioral
03/4/2016 Wallace Memorial Hospital
• Anxiety

Imaging
• Last angiogram 11/12/15 due to chest pain with no new findings

Security Events

Date	Location	Type	Specifics
2/24/2016	Wallace Mem Hosp	Verbal	• Patient needed sedatives due to delusions and agitation.

Security Events (18 Mo.)	Count
Verbal	1
Total	1

Rx Risk Assessment: High

Washington PDMP Report

Rx Details (6 Mo.)	Qty.	Prescriber	CS	MED	Rx Summary (12 Mo.)	Count
2016-02-12 CLONAZEPAM 0.5	30	Ben Zaniello, MD	3	60.0	CS II-V Rx	0
2016-01-28 CLONAZEPAM 0.5	30	Ben Zaniello, MD	3	60.0	CS-II Rx	0
2016-01-14 CLONAZEPAM 0.5	30	Ben Zaniello, MD	3	60.0	Quantity Dispensed	120
2015-12-31 CLONAZEPAM 0.5	30	Ben Zaniello, MD	3	60.0	Unique Prescribers	2
					Long Acting Opioids	0

Recent Visit Summary

Visit Date	Location	Type	Diagnoses
03/04/2016	Wallace Memorial Hospital	Inpatient	- Anxiety, CHF

12/21/2015 St. Patrick's Hospital Procedure - Arrythmia

ED Visit Dates	Location	Type	Diagnoses
04/18/2016	Henry Medical Center	Emergency	- Shortness of Breath
03/04/2016	Wallace Memorial Hospital	Emergency	- Fever, unspecified
12/21/2015	St. Patrick's Hospital	Emergency	- Medication side effect - Chest Pain
03/03/2015	Sisters of Mercy Centralia Hospital	Emergency	- Shortness of Breath

E.D. Visit Count (1 Yr.)

Location	Visits
Sisters of Mercy Centralia Hospital	4
Henry Medical Center	37
Wallace Memorial Hospital	6
Total	47

Note: Visits indicate total known visits.

The above information is provided for the sole purpose of patient treatment. Use of this information beyond the terms of Data Sharing Memorandum of Understanding and License Agreement is prohibited. In certain cases not all visits may be represented. Consult the aforementioned facilities for additional information.

© Mon May 27 04:12:35 MDT 2016 Collective Medical Technologies, Inc. - Salt Lake City, UT - info@collectivemedicaltech.com

Care Provider Information:

Having the details for a patient's care providers immediately available helps to inform the conversation with the patient, and helps to ensure that the patient gets to the right care in the right setting.

Individualized Care Guidelines:

Patient-centered guidelines designed by treating providers and case managers give clinicians bite-sized pieces of the patient's care coordination puzzle without having to hunt down loads of records.

Care History Information:

Clinical information contributed by any ED that a patient has visited, condensed down to date of the event, hospital where the information came from, relevant notes and diagnoses, and chronic condition, surgical, and relevant mental and behavioral health history information. This is the longitudinal patient view boiled down to only the essentials that will help paint a clearer picture.

Security Event Details:

Knowing if a patient has been a security threat in the past, to himself or others, is a critical piece of information. EDIE can alert you and your hospital's security staff of the date of any security-related event, where the event occurred, the type of event, and any relevant details surrounding the event.

PDMP Information:

Edie Notifications can display narcotics prescription information from state PDMP databases—where permitted by applicable law—thus eliminating the need for ED clinicians to query yet another database while giving them a valuable perspective on a patient's recent prescription history.

Visit History:

Seeing how many total ED and In-Patient visits your patient has had in the last 12 months, the reasons for the visits, and the locations of the visits gives you a clearer understanding of long-term ED-utilization patterns, helping to kick-start an objective conversation with the patient.

Example of Edie EHR integration

ED Tracking Board in Epic

The screenshot displays the Epic ED Tracking Board interface. At the top, there is a navigation bar with various tools like 'Refresh', 'Results', 'Manage Orders', etc. Below this is a table of patients in the ED. One patient, ZZTEST, EDIESIX (17 y.o. M), is highlighted in blue, and a callout bubble labeled 'EDIE Alert' points to this row. Below the table, there is a section for 'EDIE Documentation' which includes a document titled 'EDIE ALERT 03/03/2016 10:23 AM ZZTEST, EDIESIX (MRN: 50068789)'. This document contains details about the patient's registration, care providers (Dr. Smith and Lewis White), security events (Property Destruction), and care history (Substance Abuse/Overdose).

Area	Call...	Name, Age, Sex	RV/CP/E	R...	Fa...	CC	A	LOS	Re VS	BP	Pulse	HR	Resp	SpO2	Temp	Pt	Lab	Rad	Ne...	EKGB	Cler...	Comments	Reg	Priv...
WR 1		Zztest, Edieuat (27 y.o. M) ** NAM...	E					00:13								00:12		00:00					N	
PIT		Zztest, Ediecheckmarchthird (55 y.o. ...	E					00:36								00:35		00:00					N	
WR 1		Zztest, Checkedeinterface (99 y.o. ...	E					24:02								24:02		00:00					N	
WR 1		Zztest, Zikathree (16 y.o. F) ** NA...						185:22								185:21		00:00					N	
WR 1		Zztest, Zikatwo (13 y.o. F) ** NAM...						185:22								185:22		00:00					N	
WR 1		Zztest, Zikaone (55 y.o. F) ** NAM...						185:23								185:23		00:00					N	
PIT		Zztest, Purple (116 y.o. F) ** NAM...				Abdominal pain		1152:40								674:37	[0/2/2]	00:00					N	
WR 1		Zztest, Ediesix (17 y.o. M) ** NAM...	E					00:07								00:06		00:00					N	
PIT		Zztest, Peds (2 y.o. M) ** NAME A...	E					27:44								27:44		00:00					N	
WR 1		Zztestkf, Lwbs (27 y.o. M)	E					21:13								21:13		00:00					N	

EDIE Documentation
 EDIE Document filed by Edie, Generic Provider, MD at 03/03/16 1024

EDIE ALERT 03/03/2016 10:23 AM ZZTEST, EDIESIX (MRN: 50068789)
 This patient has registered at the Sutter Health Alta Bates Ashby Campus Emergency Department. For more information visit: <https://secure.ediecareplan.com/patient/03Dec36-c31c-4048-5d96-7dfb5ee19cd5>

Care Providers

Provider	Type	Phone	Fax	Service Dates
Dr. Smith at Bay Area Family Medicine	Primary Care	(888) 867-5309		Current
Lewis White at Acme Pharmacy	Narcotics Prescriber	(801) 867-5309		Current

Security Events

Date	Location	Type	Specifics
Wed Jan 06 15:57:00 MST 2016	Sutter Health Alta Bates Summit Campus	Property Destruction	<ul style="list-style-type: none"> • Patient attempted to vandalize, damage or destroy property. • Details: Patient ripped off current in triage when denied narcotics. Became upset and noticeably angered. Contact security upon arrival.

Security Events (18 Mo.) Count

Property Destruction	Count
1	1
Total	1

Care History
 Substance Abuse/Overdose
 01/01/2016 Sutter Health Alta Bates Summit Campus
 Patient has a history of substance abuse and rehabilitation efforts. Known to travel hospitals when prescriptions run out.

ED Care Guidelines from General Hospital

Last Updated: Wed Jan 13 16:39:56 MST 2016

Example of PreManage ED EHR integration

ED Tracking Board in Cerner

The screenshot displays the Cerner EHR interface. At the top, an ED tracking board shows a grid of patient data. The second row from the bottom is highlighted, showing a patient named ZCIS, AUDREY, aged 29, with a status of 'TESTING' and a time of 0:19:20. Below the grid, a summary bar shows the patient's name, DOB (01/06/1986), age (29 years), MRN (770271), sex (Female), and location (ED). The patient's allergies are listed as 'No Known Allergies'. The main content area shows a list of documents, with the selected document being an 'EDIE Alert' from 04/09/2015. The alert details include the result type (EDIE Alert), result date (09 April 2015 08:01 PDT), result status (Auth (Verified)), result title (EDIE_ALERT), and encounter info (3150006462, Tuality Community Hospital, Emergency, 04/09/2015 - EDIE). Below the alert details, there is a section for 'VISIT TRACKING (3 MO.)' with a table of patient visits. The table has columns for Visit Date, Location, Type, and Diagnoses. The visits listed are:

Visit Date	Location	Type	Diagnoses
02/24/2014 14:41	Providence Centralia Hospital	Emergency	kidney pain;
01/26/2014 22:49	Providence Centralia Hospital	Emergency	Abscess; Cellulitis and abscess of foot,
except toes;			
01/19/2014 22:46	Providence Centralia Hospital	Emergency	Leukocytosis, unspecified; left foot abscess; Scabies; Scabies, Rash;
12/06/2013 10:44	Providence Centralia Hospital	Emergency	Rash; Back Pain; Sprain of thoracic; middle back pain; 2. Personal history of tobacco use;

Below the visit tracking section, there is a section for 'VISIT COUNT (1 YR.)' with a table of visits. The table has columns for Visits, Medicaid NE Dx, and Location.

Visits	Medicaid NE Dx	Location

State-level Data: Washington experienced a 10% drop in total Medicaid ED visits year-over-year (~\$34M in savings); with significant credit given to PreManage ED (EDIE)

9.9% • ED visit rate

- **Population:** WA Medicaid
- **ED Visit Definition:** ER Code 0450 with exclusions³
- **Time Period:** Jul'12 – Jul'13
- **Payers:** UHC, Molina, CCW, CHPW, Amerigroup
- **Methodology:** Actual claims reconciliation

	Jul-13	Jul-12	Reduction
ED Visits	40,907	44,936	
Assigned Medicaid Members	1,090,697	1,078,788	
ED Visits / 1K members	37.5	41.7	4.1 visits / 1K 9.9% decrease 4,074 visits per mo

- **WA HCA estimated \$34M Year 1 savings**
- **5-years of straight reductions in opioid-related deaths**

27% • Reduction in opioid overdose deaths (2008 – 2013)

24% • Reductions in ED visits with opiate Rx

27% • Decrease in # of high utilizers w/ >1 prescriber

Note: ¹Defined as patients with five or more visits annually; ²Defined as "less serious"; ³e.g., included if no in-patient admission, death or surgical status code attached

Source: WSHA FY2015 Report

Outside Legal Opinion to confirm PreManage ED operates in compliance with NM state and federal privacy regulations

Conclusions

- **Patient Consent:**
 - The HIPAA Privacy Rule allows hospitals to disclose PHI for “treatment”, “payment”, “health care operations”, and “public health” activities without patient consent / authorization
 - NM state law is consistent with this HIPAA Privacy Rule TPO disclosure framework
- **Opt in vs. Opt out:**
 - PreManage ED can operate on “opt out” basis (i.e., default is to share patient info unless patient “opts out”);
 - The “opt in” requirements for “Record Locator Services” New Mexico Electronic Medical Records Act do not apply to PreManage ED
- **Sensitive Information (“SI”):**
 - Some categories of PHI are subject to extra privacy restrictions (usually via additional patient consent requirements)
 - Examples: psychotherapy notes, substance abuse treatment information, HIV test results, genetic testing information
 - PreManage ED employs conservative compliance approach: (1) most SI is excluded from coming into PreManage by technical and/or policy controls; and (2) in limited cases where SI does come in to PreManage ED, technology restricts access to appropriate clinicians

Outputs

- **Christensen Legal Opinion:** available for distribution to all NM hospitals for review
- **Approved contract documents:** Master Subscription Agreement and PreManage ED Service Order Form for distribution to / review by all NM hospitals

May 26, 2016

Mr. Travis K. Smith
President & Chief Operating Officer
Collective Medical Technologies, Inc.
9815 S. Monroe Street, Suite 501
Sandy, UT 84070

Re: Legal Opinion of the following PreManage Services under New Mexico State and Federal Law:

1. **PreManage ED**
2. **PreManage Community**

Dear Travis:

This letter is to provide Collective Medical Technologies, Inc. ("CMT") with my opinion about the following health information exchange services and activities under Federal law and the laws of the State of New Mexico:

- The use of the PreManage ED service (also known as the "Emergency Department Information Exchange" or EDIE in other states)) to share Health Information¹ among emergency departments ("EDs").
- The use of PreManage to share Health Information for purposes of care coordination, case management and population-based activities.

A. Short Answer for PreManage ED

The short answer is that Health Care Providers can use PreManage ED to exchange such information, without patient authorization, provided that:

- They have entered into a Master Subscription Agreement ("Subscription Agreement") and Business Associate Agreement ("BAA") with CMT, as operator of

**Full legal opinion
with detailed
analysis of
federal and NM
privacy laws**



Potentially share with ED Personnel **only**: Care recommendations, Care History (Patient Background), Crisis Plans, psych hospital or mental health clinic Care Manager Contact Info, etc.



Notifications to mental/behavioral health care managers for any ED visit or inpatient admission/discharge from other hospitals across NM + view of patient's clinical history in PreManage ED web portal



42 CFR Part 2 = no sharing with other hospitals through PreManage ED (may change under new/proposed regulations)



Notifications to SAT facility care managers for any ED visit or inpatient admission/discharge from other hospitals across NM + view of patient's clinical history in PreManage ED web portal

PreManage ED (aka "Edie")

