Helping our patients in crisis
The art, science, & systems of emergency psychiatry

Scott Simpson MD MPH
Medical Director, Psychiatric Emergency Services
Denver Health Medical Center

Minnesota's Mental Health Traffic Jam
Minnesota Psychiatric Society

23 November 2019

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Disclosures

- Publishing
  - Taylor & Francis

- Advisory/Consulting
  - Impel Neuropharma

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Objectives

- Describe systems for behavioral crisis care in Colorado

- Describe clinical innovations in emergency psychiatry

- Identify challenges and opportunities for improvement in emergency psychiatry
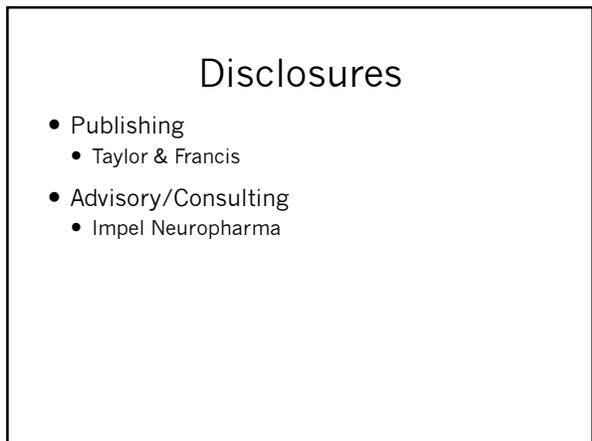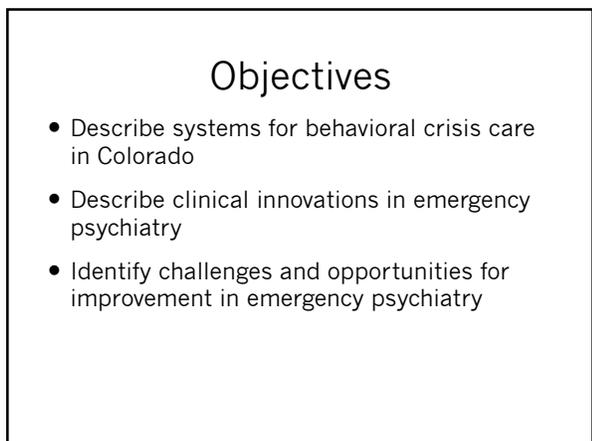
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Slide 4

	Colorado	Minnesota
Population	5.7 million	5.6 million
% pop change 2008-18	+1.5%	+0.7%
Major metro population (% of state)	Denver 2.9 million (51%)	Minneapolis 3.3 million (59%)
Inpatient Ψ beds/100k	43	54
Suicides/100k	20	14
Overdose deaths/100k	18	13

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Slide 5

DENVER HEALTH.
— est. 1860 —
FOR LIFE'S JOURNEY

- Level 1 Trauma Center
- 525 bed hospital
- Affiliated with University of Colorado
- 9 Family health centers
- 17 school based clinics
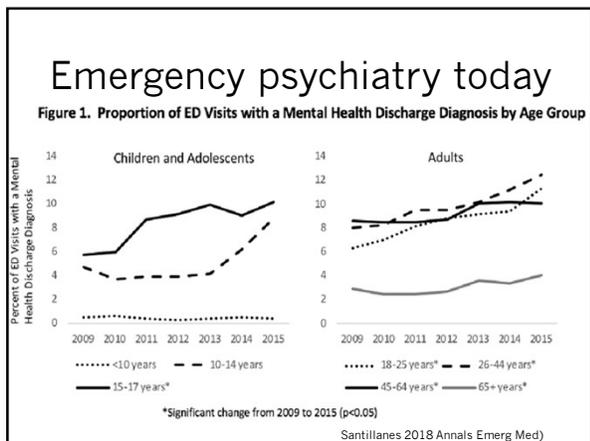- Public health department
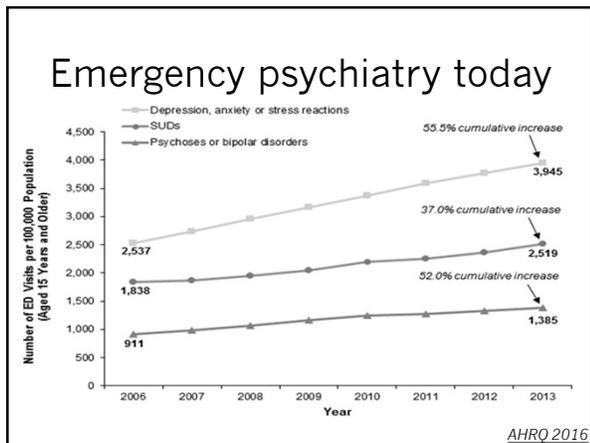
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Slide 6

Emergency Services

- Psychiatric Emergency Services
  - 16 bed unit
  - Mobile crisis services
  - Consultation services
- Emergency department
  - Adults and kids
  - 120+k patient encounters/year
- CARES
  - 60 bed detox
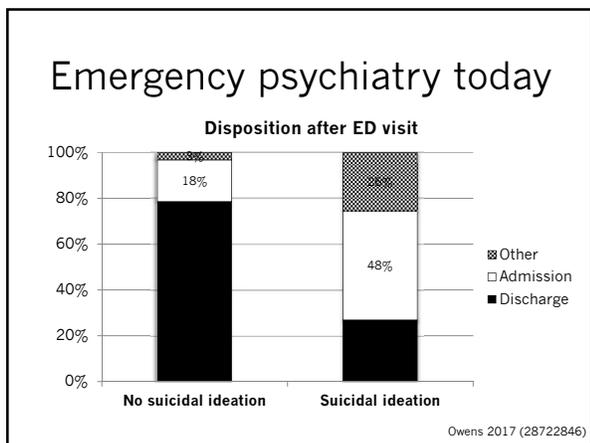- Paramedic division
- Community nurseline

DENVER HEALTH
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Emergency psychiatry today

Figure 1. Proportion of ED Visits with a Mental Health Discharge Diagnosis by Age Group

Santillanes 2018 Annals Emerg Med)

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Emergency psychiatry today

AHRQ 2016

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Emergency psychiatry today

Disposition after ED visit

Owens 2017 (28722846)

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Incident ED delirium

Incidence of delirium among ED patients >64 years old

Emdon 2018
(29523559)

11

Missing delirium=deadly?

6 month mortality of discharged elderly patients with delirium:
- Not delirious: 14%
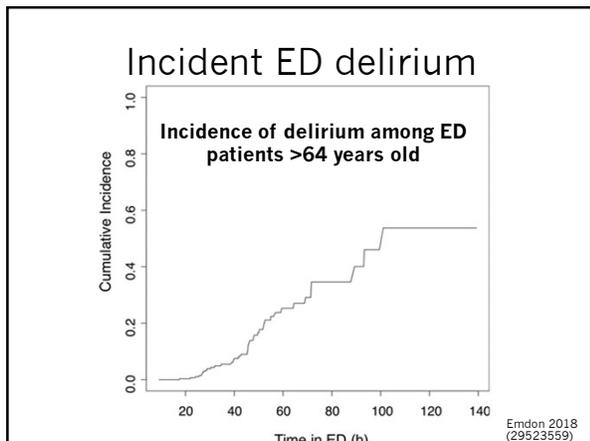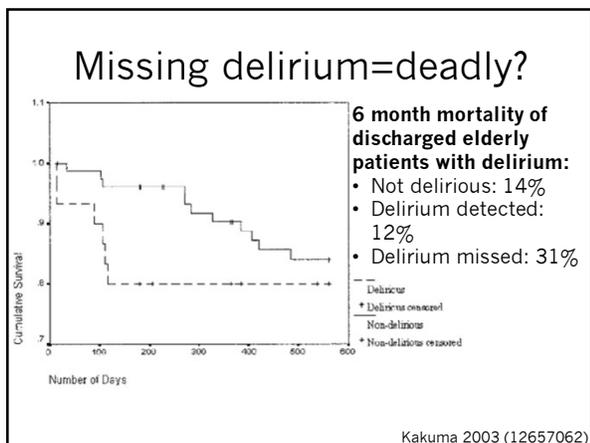- Delirium detected: 12%
- Delirium missed: 31%

Kakuma 2003 (12657062)

12

Boarding and its (many) causes

- Increasing number of ED presentations
- Lack of behavioral health training
- Conservative practice
- Lack of specialized treatment in the ED
- Poor care navigation
- Lack of hospital alternatives
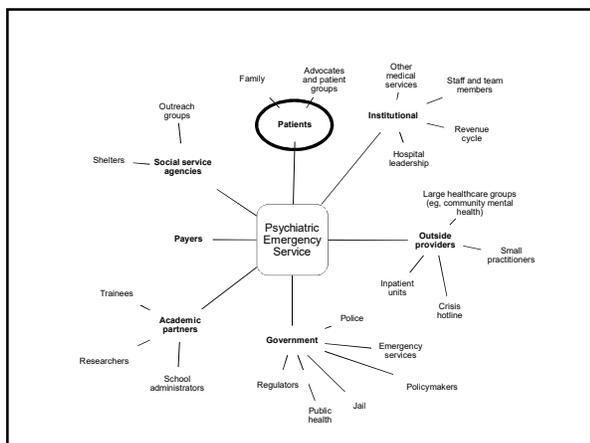- Unavailability of inpatient beds

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Who boards?

- Arrive on Fri/Sat/Sun
- Experience restraint or seclusion
- Diagnosis of psychosis/mania
- Tobacco use
- Medicaid
- Hospital factors

Simpson 2014 (25247041);
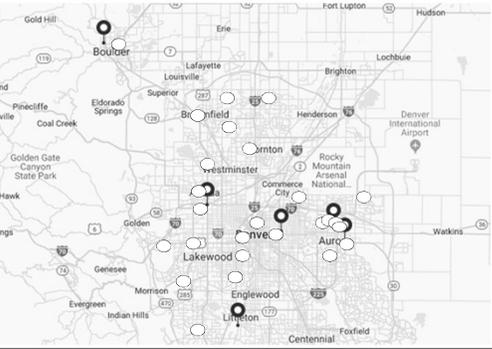Smith 2016 (27364809)

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Access Quality

4 Aims

Cost Provider resiliency

Bodenheimer 2014
(25384822)

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How do we get there?

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Access Quality

4 Aims

Cost Provider resiliency

Bodenheimer 2014
(25384822)

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Access

- Fast
- Well-known to patients, families, and providers
- Appropriate level of care

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Access

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Mobile crisis services

- Mobile crisis averts some hospitalizations

Community-based mobile services intervention group

Hospital-based intervention group

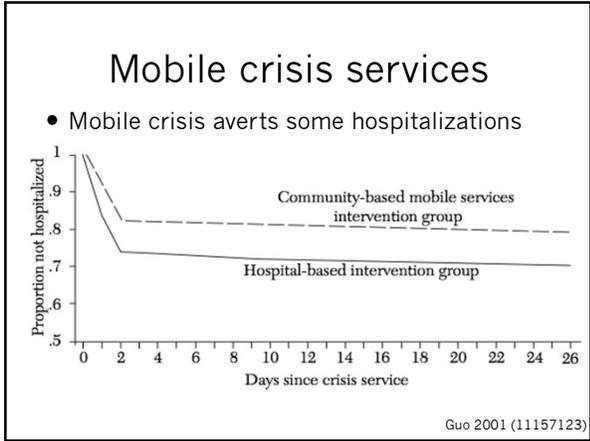Proportion not hospitalized

Days since crisis service

Guo 2001 (11157123)

21

Law enforcement

- Frequent mental health encounters
- Court decisions
- Regulatory expectations
- Community pressure
- Cost

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Crisis Intervention Training

- Denver: 100% CIT trained
- 40 hour initial training
  - Skills assessment
  - Test
- Annual refresher

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Weekly Curriculum

Intro & pre-test	Table top discussion	Table top discussion	Table top discussion	Final test
			Department resources	Role plays
Law & police with city attorney	Resource panel	Substance abuse & excited delirium	Elderly encounters	
	Intellectually disabled persons	Tactical & equipment considerations	Adolescent encounters	
Lunch	Lunch	Lunch	Lunch	Lunch
Overview of mental illness	Stages of an escalating crisis	Suicide by cop	NAMI	Role plays
Intro to verbal techniques	Basic strategies for de-escalation	Advanced verbal techniques	Role plays	
Stages of an escalating crisis	Suicide intervention	Veteran considerations	Course review	Graduation

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Developing CIT

- Integrating CIT at all levels
  - Level 1 training is universal
  - Level 2 mentors
  - Level 3—hostage negotiation
- Outcome tracking
  - Diagnoses encountered
  - Use of M1 holds
  - Utilization of non-jail services

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The test: no joke!

- What is the most common of all the mental health disorders?

- Antisocial Personality Disorder is characterized by a long standing pattern of what?

- What moves the discussion off the factual level to the emotional level?

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The police twist on BH

- Where should you look first when a patient with autism wanders?

- Working with veterans, use "radio someone" rather than "call someone."

- What should you do with a demented patient who is shoplifting?

- Maintain safety of co-responders

- Appropriate use of Tazers and firearms

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Ongoing work

- >100 published studies of such collaborations
- Avoid use of jail where reasonable
- Field identification of substance use
- Coordination of care
- Co-responders through community mental health
- Data analysis to understand outcomes from MH-related encounters

Parker 2018 (29588323)

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Substance treatment
No Wrong Door

Jail   Inpatient services

CURES/detox/rehab   Community

Outpatient specialty services

Emergency services   Specialty clinic

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2018 opioid treatment referrals

Detox
(n=36, 6%)

Jail
(n=59, 10%)

Inpatient services
(n=85, 14%)

Community
(n=,129, 21%)

Emergency services
(n=307, 49%)

627 patients
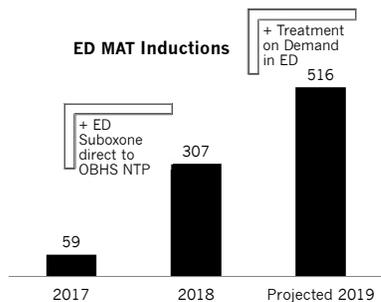
Specialty clinic
(n=1, 2%)

30

Current state in the ED: Treatment-on-deman

- Launched December 2018
- 24/7 on-demand team largely funded by City of Denver
- Narcotic treatment program intake completed in the ED

31

Pre & Post Treatment on Demand

ED MAT Inductions

+ Treatment on Demand in ED

516

+ ED Suboxone direct to OBHS NTP

307

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2017　2018　Projected 2019

32

Pre & Post Treatment on Demand

Induction Location	2018	Projected 2019
ED	307	516

Linkage
2018　2019

51%　70%

Retention*
2018　2019

34%　60%
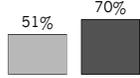
Avg Time to Follow-Up:
2018: **7** days | 2019: **2** days

*2018: 30 day
2019: 60 day

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Slide 34

Access

Quality

4 Aims

Cost

Provider resiliency

Bodenheimer 2014
(25384822)

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Slide 35

Quality

Evidence-based

Assessment

Safe

Trauma-informed

Symptomatic treatment

Identification and diagnosis

Crisis resolution

Connection to care and community

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Slide 36

Values-Based Performance Metrics

CRISES: Crisis Reliability Indicators Supporting Emergency Services

Excellence in Crisis Services

Timely
- Door to Diagnostic Evaluation
- Left Without Being Seen
- Median Time from ED Arrival to ED Departure for ED Patients: Discharged, Admitted, Transferred
- Admit Decision Time to ED Departure Time for ED Patients: Admitted, Transferred

Safe
- Rate of Self-directed Violence with Moderate or Severe Injury
- Rate of Other-directed Violence with Moderate or Severe Injury
- Incidence of Workplace Violence with Injury

Accessible
- Denied Referrals Rate
- Provisional: Call Quality

Least Restrictive
- % Community Dispositions
- % Conversion to Voluntary Status
- Hours of Physical Restraint Use
- Hours of Seclusion Use
- Rate of Restraint Use

Effective
- Unscheduled Return Visits – Admitted, Not Admitted

Consumer and Family Centered
- Consumer Satisfaction – % Likely to recommend
- Family Involvement - % attempt documented

Partnership
- Law Enforcement Drop-off Interval
- Hours on Divert
- Provisional: Median Time From ED Referral to Acceptance for Transfer
- Post Discharge Continuing Care Plan Transmitted to Next Level of Care Provider Upon Discharge
- Provisional: Post Discharge Continuing Care Plan Transmitted to Primary Care Provider Upon Discharge

Balfour ME, Tanner K, Jurica PS, Rhoads R, Carson C. (2015) *Community Mental Health Journal.* 52(1): 1-9. http://link.springer.com/article/10.1007/s10597-015-9954-5
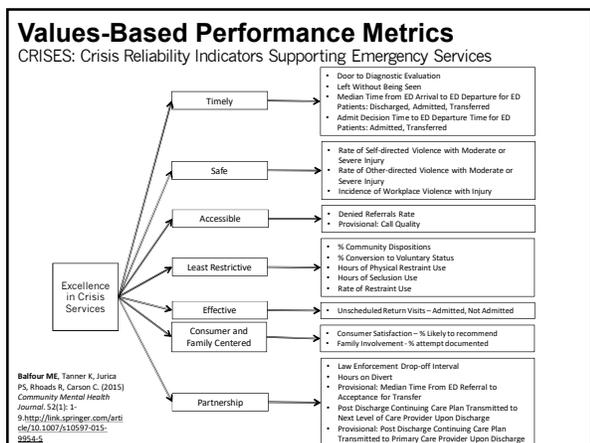
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Emergency telepsychiatry

- Well-accepted by patients
- Correlates with improved 30d f/u (46% v 16%)
- Correlates with fewer admissions (11% v 22%)
- Correlates with overall lower LOS
- Might save provider time
- Cost effective

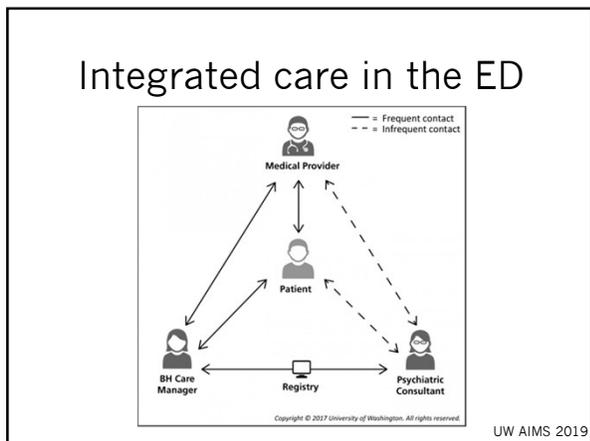Narasimhan 2015 (26129992); Reilford 2019 (30379635); Salmoiraghi 2015 (26348806)

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What are these consults?

Consult question for 240 emergency telepsychiatry evaluations
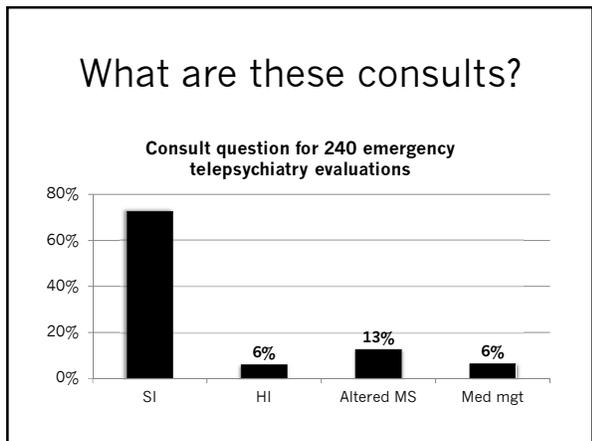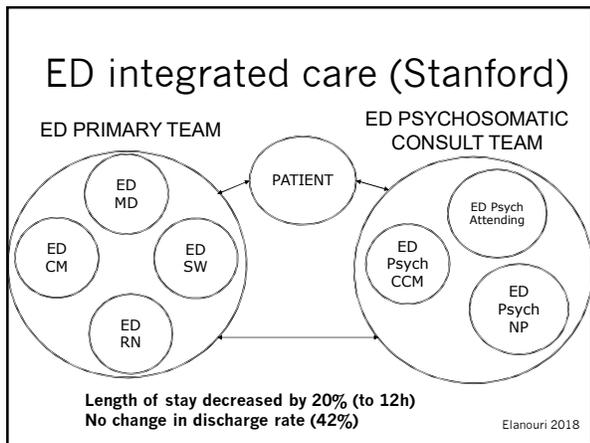

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Telepsychiatry limitations

- Not appropriate for all patients
- Cost is not negligible—often need multiple sites
- Confounding in data
- Limited impact across larger ED culture
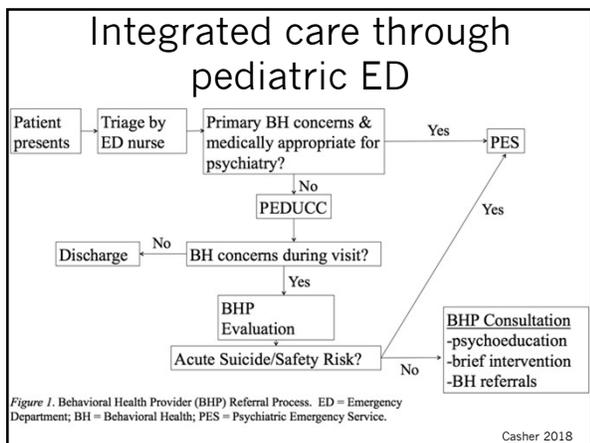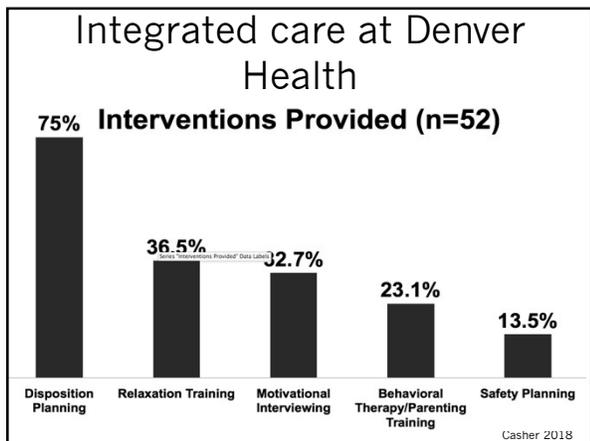- Doesn't fix disposition issues

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Integrated care in the ED

UW AIMS 2019

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ED integrated care (Stanford)

ED PRIMARY TEAM

ED PSYCHOSOMATIC CONSULT TEAM

Length of stay decreased by 20% (to 12h)
No change in discharge rate (42%)

Elanouri 2018

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Integrated care through pediatric ED

Figure 1. Behavioral Health Provider (BHP) Referral Process. ED = Emergency Department; BH = Behavioral Health; PES = Psychiatric Emergency Service.

Casher 2018

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Integrated care at Denver Health

Interventions Provided (n=52)

75% — Disposition Planning
36.5% — Relaxation Training
32.7% — Motivational Interviewing
23.1% — Behavioral Therapy/Parenting Training
13.5% — Safety Planning

Casher 2018

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Psychiatric Emergency Services

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Psychiatric Emergency Service

- Handles most severe cases
- Experienced staff to appropriately diagnose
- Maintain relationships with alternative levels of care
- As a community resource, allows sicker patients to be treated in the community
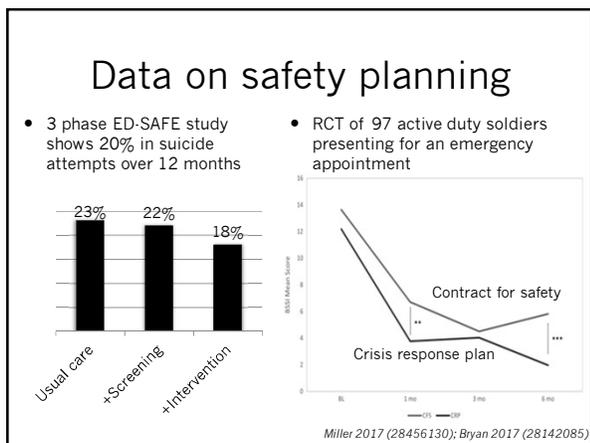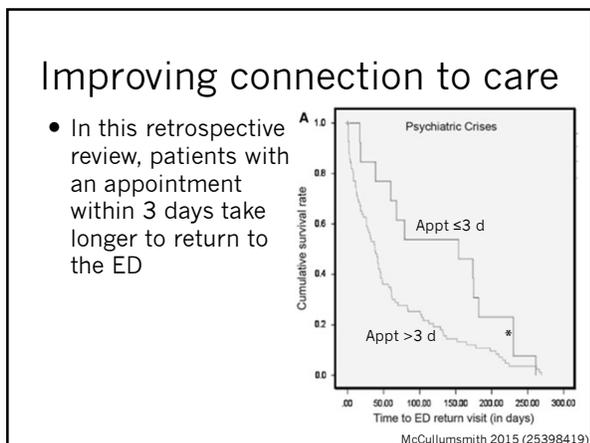- Supports other models

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A good PES evaluation

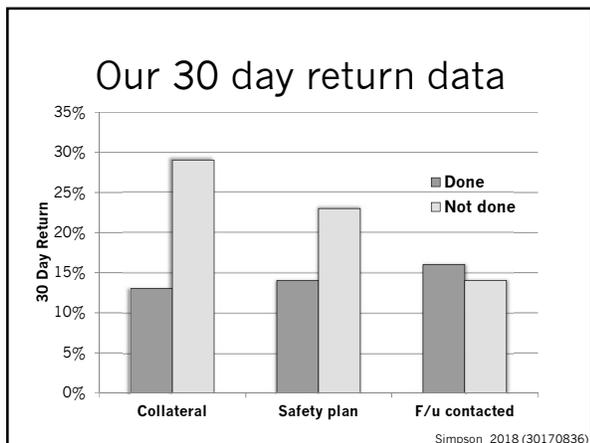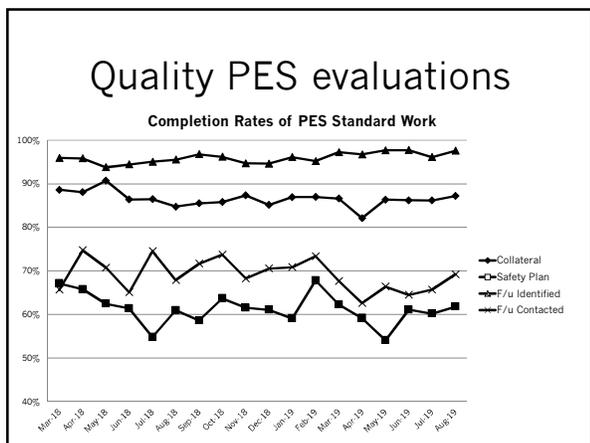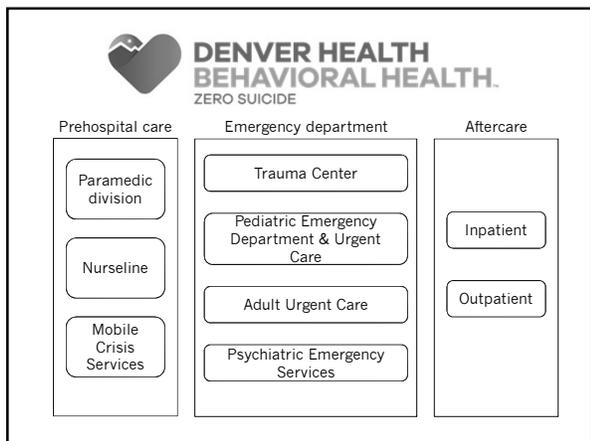| Standard	Justification
Obtain an accurate medication reconciliation	In studies, most patients have medication errors on admission.
Obtain collateral information	Published standards of care for risk assessment expect collateral.
Write a safety plan	Safety planning decreases ED return rates, inpatient admission, and self-harm after discharge.
Identify one next best provider	Identifying one best provider and making an appointment decreases ED return rates.
Contact that provider	Consulting with the follow-up provider improves adherence and reduces return ED visits.

Simpson 2018 (30170836)

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Data on safety planning

- 3 phase ED-SAFE study shows 20% in suicide attempts over 12 months
- RCT of 97 active duty soldiers presenting for an emergency appointment

Contract for safety

Crisis response plan

Miller 2017 (28456130); Bryan 2017 (28142085)

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Improving connection to care

- In this retrospective review, patients with an appointment within 3 days take longer to return to the ED

Psychiatric Crises

Appt ≤3 d

Appt >3 d

McCullumsmith 2015 (25398419)

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Our 30 day return data

Simpson 2018 (30170836)

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Zero Suicide

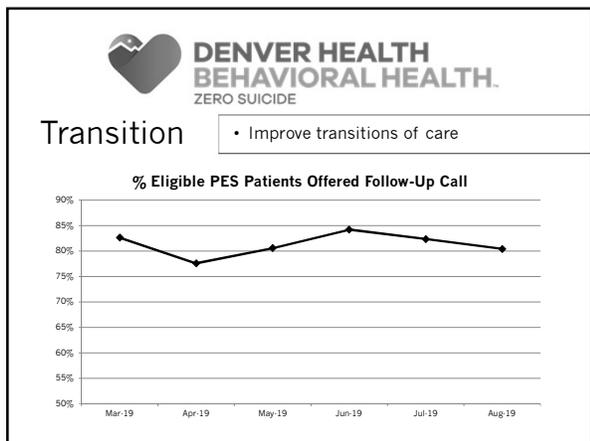|	
Lead	• System-wide culture change committed to reducing suicides
Train	• Competent, confident, caring workforce
Identify	• Individuals with suicide risk via screening and assessment
Engage	• All individuals at-risk of suicide using a suicide care management plan
Treat	• Suicidal thoughts and behaviors using evidence-based treatments
Transition	• Individuals through care with warm hand-offs and supportive contacts
Improve	• Policies and procedures through continuous quality improvement

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Quality PES evaluations

Completion Rates of PES Standard Work

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DENVER HEALTH
BEHAVIORAL HEALTH.
ZERO SUICIDE

Prehospital care	Emergency department	Aftercare
Paramedic division	Trauma Center	Inpatient
Nurseline	Pediatric Emergency Department & Urgent Care	Outpatient
Mobile Crisis Services	Adult Urgent Care	
	Psychiatric Emergency Services	

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DENVER HEALTH
BEHAVIORAL HEALTH.
ZERO SUICIDE

Lead	• Leadership group
Train	• Gatekeeper and specialized training
Identify	• Epic enhancements to leverage screening
Engage	• PES leveraged to immediately engage patients
Treat	• Provision of evidence-based treatments
Transition	• Improve transitions of care • Monitor best practices
Improve	• Monitoring of implementation

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DENVER HEALTH
BEHAVIORAL HEALTH.
ZERO SUICIDE

Identify	• Epic enhancements to leverage screening

Complaint	MHH	Legal Status	PES TT	Comments		Reg	Recent	CSSR-S Score
Overdose - Intentional				tox recs	)	✓		High Risk
Detox Screening				Road test, po challenge and d/c to c...	:	✓		Negative S...
Overdose - Accidental; Ches...				ESU ok		✓		Negative S...
Opiate Withdrawal		Voluntary	01:44	suboxone induction		✓		Negative S...

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Slide 55

**DENVER HEALTH
BEHAVIORAL HEALTH.**
ZERO SUICIDE

Transition | • Improve transitions of care

% Eligible PES Patients Offered Follow-Up Call

(Line chart: y-axis 50% to 90%, x-axis Mar-19, Apr-19, May-19, Jun-19, Jul-19, Aug-19)

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Slide 56

Access | Quality

4 Aims

Cost | **Provider resiliency**

Bodenheimer 2014
(25384822)

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Slide 57

Provider resiliency

Violent injuries resulting in missed work days

(Line chart: y-axis "Cases per 10,000 full-time employees" 0 to 12, x-axis "Year" 2002 to 2014)

Legend:
- Healthcare and social assistance
- Private industry (overall)
- Retail trade
- Construction
- Manufacturing

OSHA, "Workplace Violence in Healthcare"

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Provider resiliency

Abuse is Universal Among ED RNs

- Verbal abuse — 96%
- >1 verbal abuse episode/wk — 25%
- Physical assault in 1 year — 52%
- Feel violence is part of the job — 49%

Gacki-Smith 2009 (19641432); Khademloo 2013 (23777737); Stene 2015 (25902352)

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Provider resiliency

- Use of scales improves perceptions of staff safety

Changes in staff perception after BARS rollout (n=20)

Staff responding "yes"

- A scale is helpful. — Pre 5%, Post 76%
- Team addresses agitation rapidly. — 95%
- I feel this is a safe unit. — 100%
- I feel safe on the unit. — 90%

Pre / Post

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tinyurl.com/verbaldeescalation

Curriculum Improves Comfort, Confidence, and Safety in Verbal De-escalation (n=151)

- How comfortable? — Pre 17%, Post 81%
- How confident? — Pre 17%, Post 87%
- How safe? — Pre 28%, Post 77%

Pre / Post

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Specialized training

Implementation and Evaluation of a Military–Civilian Partnership to Train Mental Health Specialists

Scott A. Simpson*; COL Matthew Goodwin*†; LTC Christian Thurstone*†

ABSTRACT   Introduction: Mental health specialists (MHS, or 68X) play a central role in meeting the growing demand for combat stress care among Service Members. Partnering with civilian institutions may enhance the MHS training experience beyond Advanced Individual Training (AIT). Methods: We describe a novel military–civilian collaboration to train U.S. Army Reserve MHS's in the psychiatric emergency service (PES) of a public, safety-net hospital. Details of implementation are described. The training rotation was evaluated after 1 year through a comprehensive chart abstraction of patients seen as well as surveys of MHS's and civilian partners. Results: The roles of MHS and physician officers in this rotation are described. Over 9 days in the PES, the MHS team evaluated 26 patients. MHS's described a high-quality training environment (83% rated very good or excellent) in which they frequently saw high-

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Specialized training

Simpson 2019 (30690507)
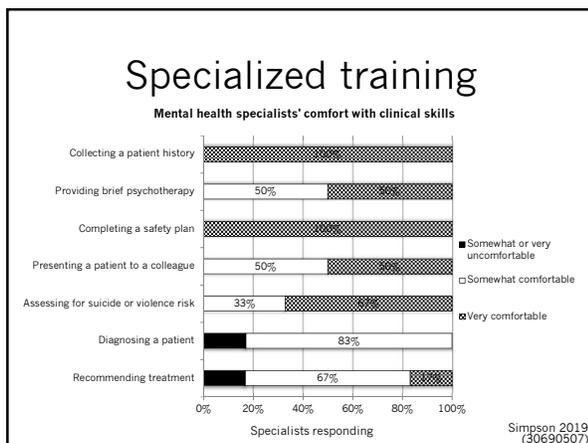
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Brief psychotherapy

### A Single-session Crisis Intervention Therapy Model for Emergency Psychiatry

Scott A. Simpson, MD, MPH   Denver Health Medical Center, Psychiatric Emergency Services, Department of Behavioral Health, Denver, Colorado

Presentations for anxiety and depression constitute the fastest growing category of mental health

Simpson 2019 (30775659)

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Brief psychotherapy
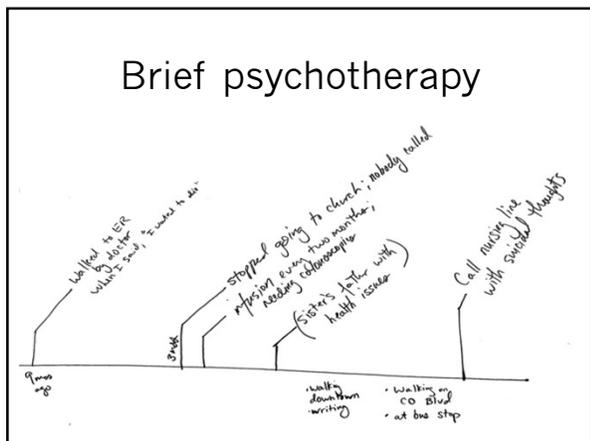
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PGY5 Emergency Psychiatry Fellowship

Denverhealth.org/EPF
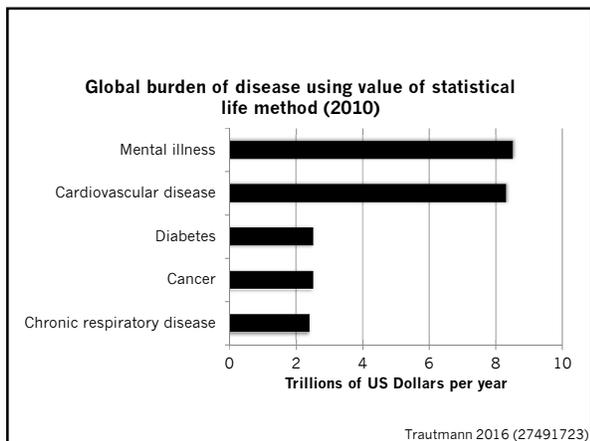
Emergency Psychiatry Fellowship

Overview

The Denver Health Emergency Psychiatry Fellowship is designed to train physician leaders in the subspecialty of emergency psychiatry. Over 10% of emergency department (ED) visits in the United States involve a psychiatric or substance use disorder—over 17 million visits per year. This volume continues to increase. Upon presentation, behavioral health patients experience longer lengths of stay, increased resource utilization, and significant morbidity and mortality after ED discharge. Thus, EDs play a vital role in identifying and treating behavioral emergencies and substance use disorders.

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Bodenheimer 2014
(25384822)

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Global burden of disease using value of statistical life method (2010)
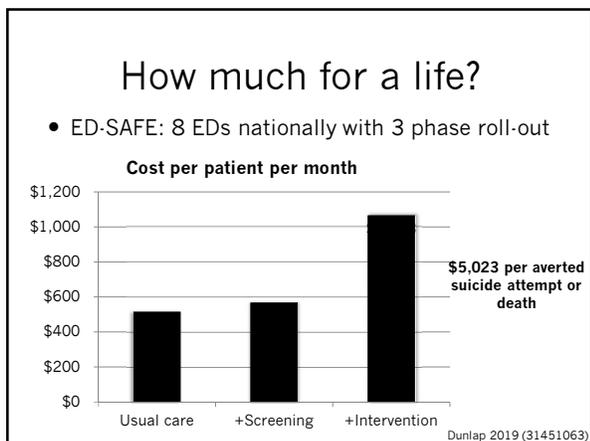

Trautmann 2016 (27491723)

67

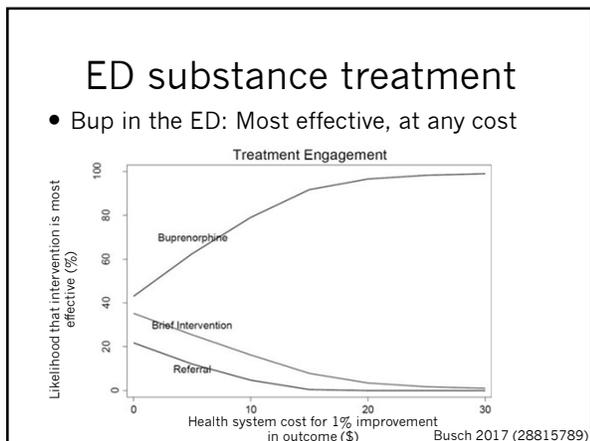# Challenges in mental health system cost assessment

- Cost of *no* treatment
- Co-morbid illness
- Ascertaining costs across systems
- Valuation of outcomes (eg, suicide)
- Does not consider incentive structures at institutional level

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How much for a life?

- ED-SAFE: 8 EDs nationally with 3 phase roll-out

Cost per patient per month

$5,023 per averted suicide attempt or death

Dunlap 2019 (31451063)

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ED substance treatment

- Bup in the ED: Most effective, at any cost

Busch 2017 (28815789)

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A few principles

- You are seeing patients at their worst.
- Treat, not just triage.
- Someone will always be upset if you do the job right.

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Comments? Questions?

Scott Simpson MD MPH

Medical Director, Psychiatric Emergency Services, Denver Health Medical Center

Associate Professor of Psychiatry, University of Colorado Anschutz Medical Campus

scott.simpson@dhha.org

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