Why "harmful habits" make financial sense:

Toward a unified lexicon to prove community paramedic programs' financial value.

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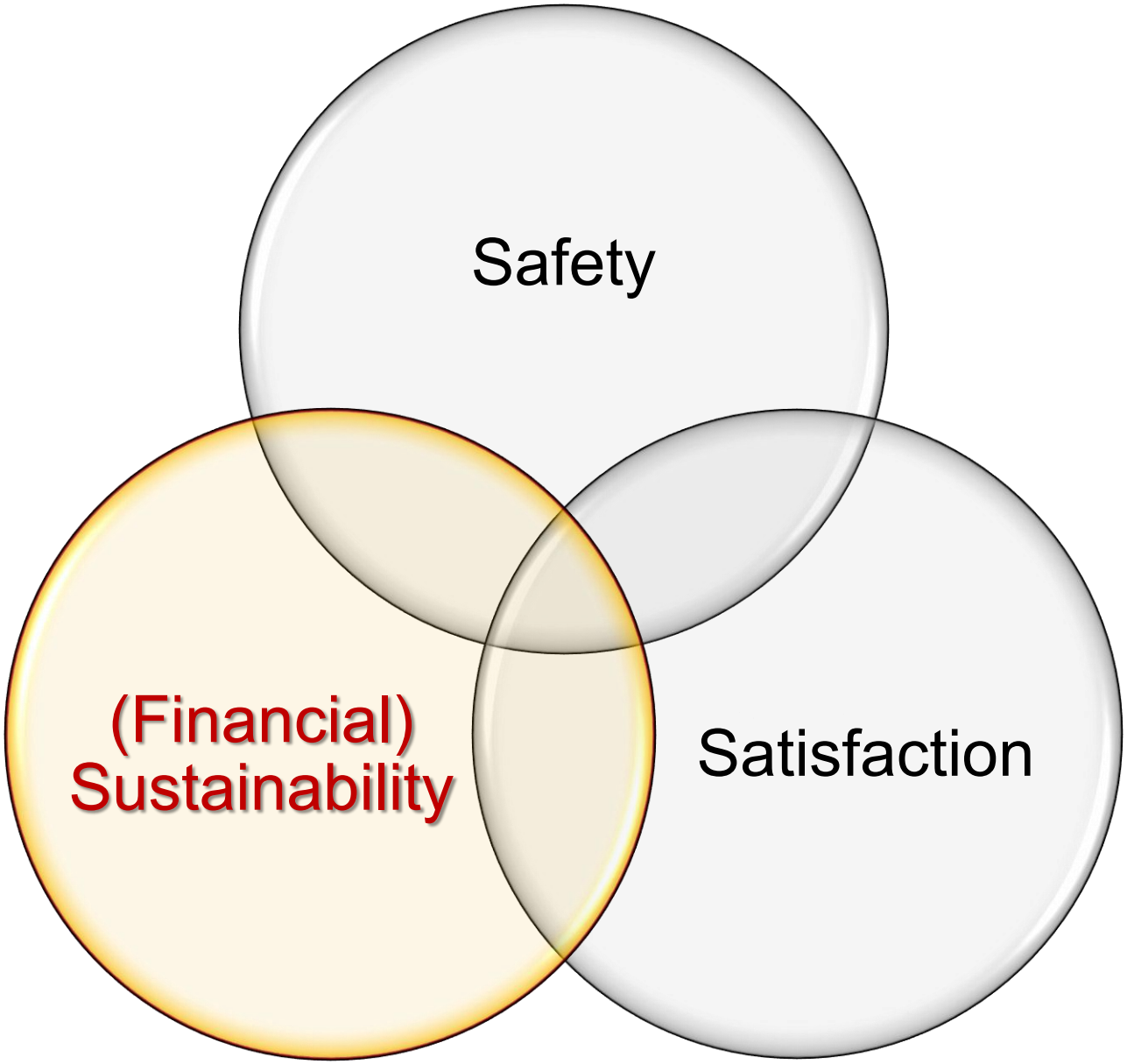
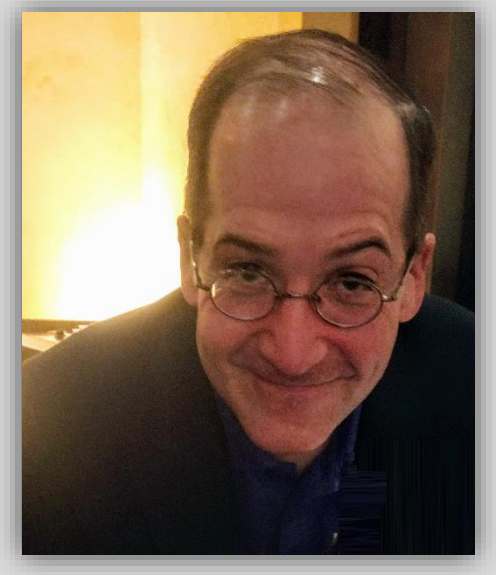
beyond lucid
Technologies & Consulting

Credit where it's due.



Three Criteria for a Successful CP/MIH Program

According to Jonathan Washko



Despite progress toward financial sustainability….

We're still asking some of the same questions.

Hi.

Subtle like a 

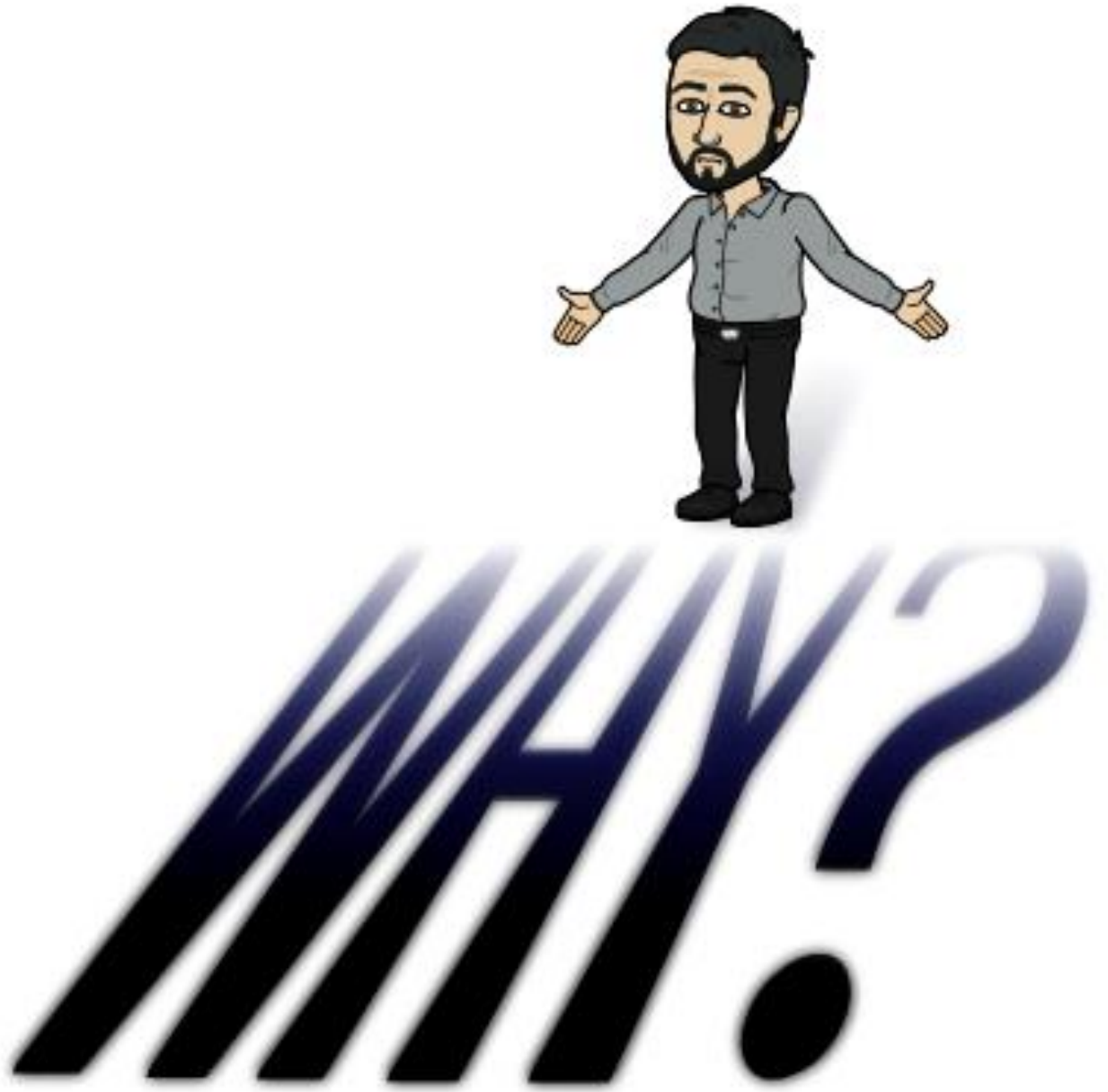
Technologist, non-clinician.

We're still asking some of the same questions, years later.

CHALLENGE EVERY ASSUMPTION

Do CP/MIH Programs REALLY “Save Money”?

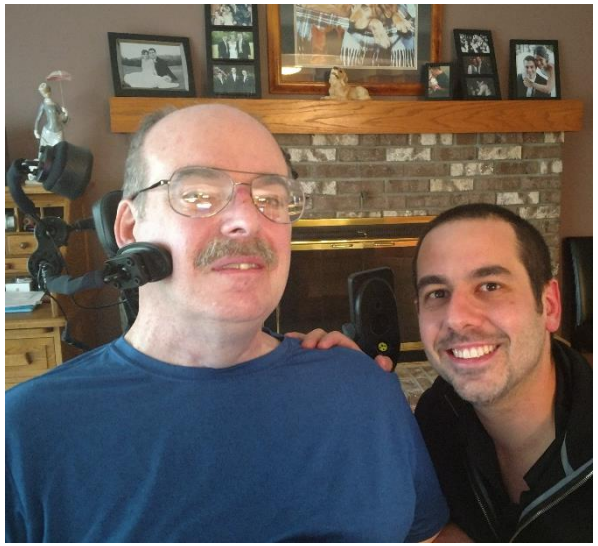
But first…the source of my passion.



Israel and Lucia Feit

Stroke. Lymphoma. CHF. Hypertension. Squamous cell carcinoma. Chronic pneumonia. Autonomic dysregulation. Spinal fusion.

R. Bruce Graham (1958-2017)



Amyotrophic Lateral Sclerosis (Lou Gehrig's Disease)

Let's jump right in with a "hard" question

Suppose you were running for office, and a constituent who hates paying taxes asks:

Let's jump right in with a "hard" question

Suppose you were running for office, and a constituent who hates paying taxes asks:

What is the actual financial value of our EMS or Fire services?

Ways of measuring the value of a Fire or EMS program

Lives saved

Property saved

Reduced crime

Better health

Jobs created

Fantastic Halloween costumes

Ways of measuring the value of a Fire or EMS program

What is the *economic* value (e.g., lifetime earnings) of the lives saved by Fire/EMS?

Is the value of property saved greater than the cost of keeping fire stations open?

Does crime *actually* go down when public safety presence is increased?

Can we do the same with Community Paramedicine?

Is the value of care provided

greater than

the cost of providing care?

Can we do the same with Community Paramedicine?

Matt Zavadsky and others have shown that CP/MIH cuts "health system" costs, esp. when considering readmits. But as we increasingly look to insurance payers for CP/MIH sustainability, **do the data show a slam dunk?**

Can we do the same with Community Paramedicine?

HYPOTHESIS:

Someone who smokes less, drinks less, does fewer drugs, and leads a less-*unhealthy* lifestyle imposes less cost on the health care system.

FAIR ASSUMPTION: NOW PROVE IT!

Financial Impact (Health Economics) of Smoking

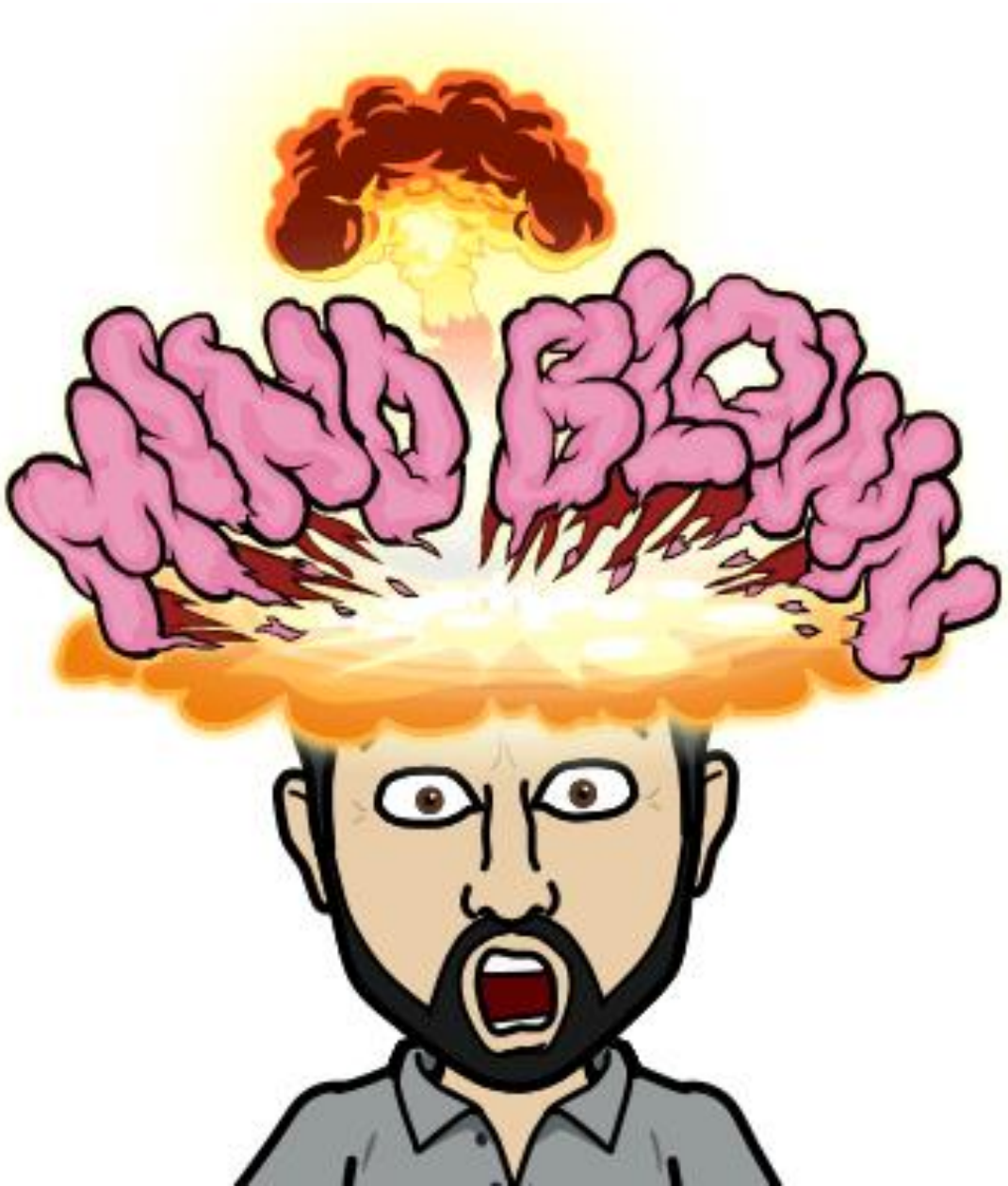
"Health care costs among former smokers **increase** relative to continuing smokers in the year after cessation…but fall to a level that is statistically **indistinguishable [from continuing smokers]** in the second year post-quit."

"The rise to higher steady state levels in subsequent years is consistent with the greater health care expense we might expect from persons who may have **neglected health and preventive services** for extended periods of time."

"Future research may demonstrate that the long-term health benefits from cessation translate into significantly lower health care costs… comparison would be between the health care costs of former smokers and their **predicted** costs had they not quit."

"Health Care Costs among Smokers, Former Smokers, and Never Smokers in an HMO." PA Fishman, ZM Khan, EE Thompson, and SJ Curry. *Health Services Research*. 2003 Apr; 38(2): 733–749. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1360912/

Financial Impact (Health Economics) of Smoking



Financial Impact (Health Economics) of Drinking

Per person per year costs for non-drinkers with a **heavy drinking history were $2421** versus…$1358 for current drinkers in 1995.

"A history of heavy drinking has a significant effect on costs after controlling for sociodemographic characteristics, health status and health practices. **Current drinkers have the lowest costs**, suggesting that they may be more likely than non-drinkers to delay seeking care until they are sick and require expensive medical care."

Good idea to stop drinking excessively? **Yes.**

Cause for caution when promising
to lower costs in the first program year? **Also yes.**

Sources: https://www.cdc.gov/features/alcoholconsumption/index.html; http://www.sciencedirect.com/science/article/pii/S0376871601001193

Financial Impact (Health Economics) of Access to Food

"The financial cost of each hospital admission for hypoglycemia was almost $1200 in 2003, a figure that has certainly risen."

"The likely reason for the spike in hospital admissions is that **people taking medication to control their blood sugar cut down on eating as their money runs low**," says Hilary Seligman, assistant professor at UC San Francisco's Center for Vulnerable Populations at San Francisco General Hospital.

My favorite anecdote comes from the Alameda County CP/MIH Pilot, which reduced "friendly face" readmissions by 51% in its first year, from 454 down to ~220; and had only 3 post-discharge patient readmits out of 109 enrolled.

Rob Waters. "New Study Reveals the Hidden Health Cost of Cutting Food Stamps." https://www.forbes.com/sites/robwaters/2014/01/06/new-study-reveals-the-hidden-health-cost-of-cutting-food-stamps/#510fe8dc610d. CP/MIH pilot data: ACEMS CP Steering Committee, 4/29/2016)

Financial Impact (Health Economics) of Loneliness

Alameda County EMS / City of Alameda Fire: Super Users are clients who have called 9-1-1 for medical help 20-50 times in the last year. **Mega Users are those who called 9-1-1 for medical help over 50 times in the last year.**

Former Contra Costa Fire EMS Battalion Chief Ben Smith: County's highest utilizers call 9-1-1 for help up to **eight times per week**, sometimes as soon as crews depart.

Difficult to find a figure in the U.S., which says something.

"Researchers have put a financial price on an "epidemic of loneliness" - estimating it costs £6,000 per person in health costs and pressure on local services. **But the London School of Economics study of older people says for every £1 spent in preventing loneliness there are £3 of savings."**

SOURCE:
http://www.acgov.org/board/bos_calendar/documents/DocsAgendaReg_02_03_15/HEALTH%20CARE%20SERVICES/Regular%20Calendar/HCSA_213610.pdf; http://www.bbc.com/news/education-41349219

The role for CP/MIH is clear. But we're talking finance + data:

Community Paramedicine
=
Lower Healthcare Costs

The role for CP/MIH is clear. But we're talking finance + data:

The role for CP/MIH is clear. But we're talking finance + data:

You need a separate data system to capture the CP/MIH data that you need to prove your program's value.

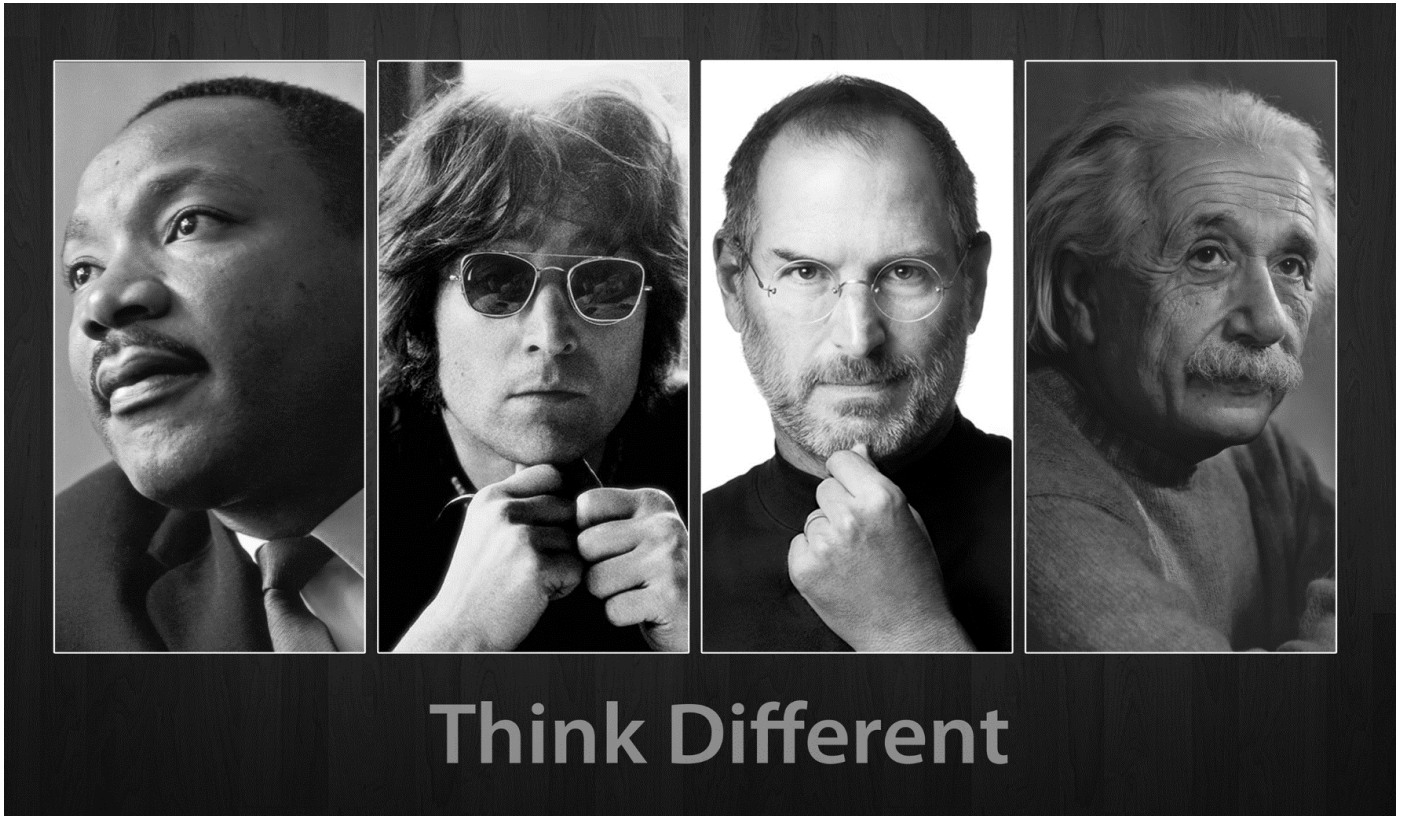
The role for CP/MIH is clear. But we're talking finance + data:

You need a separate data system that captures new CP/MIH data that you need to prove your program's value.

The MYTH of NON-ePCR-based patient charting over time

If EHRs are so great, why do so many clinicians hate them?

Why do we need to redesign the box
– let along "think outside" of it –
when the box is underutilized to begin with?



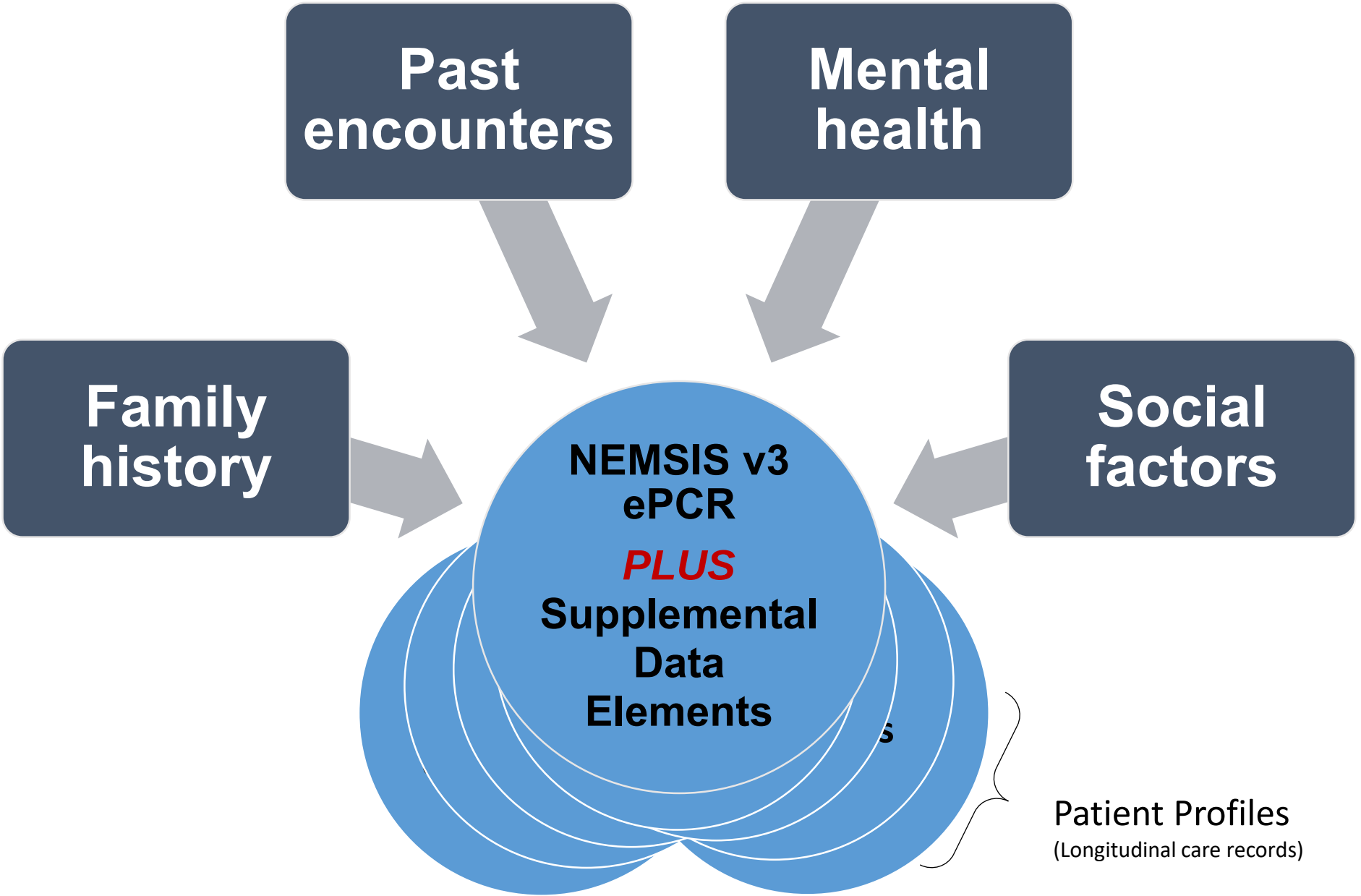
The MYTH of NON-ePCR-based patient charting over time

Some data aren't captured in an ePCR (e.g., social factors, longitudinal factors) but are needed to connect to an EHR

BUT

Sometimes a wellness check turns into something else…
(Why need a second system to integrate back later?)

Don’t bother trying to build an EHR interface w/o NEMSIS v3



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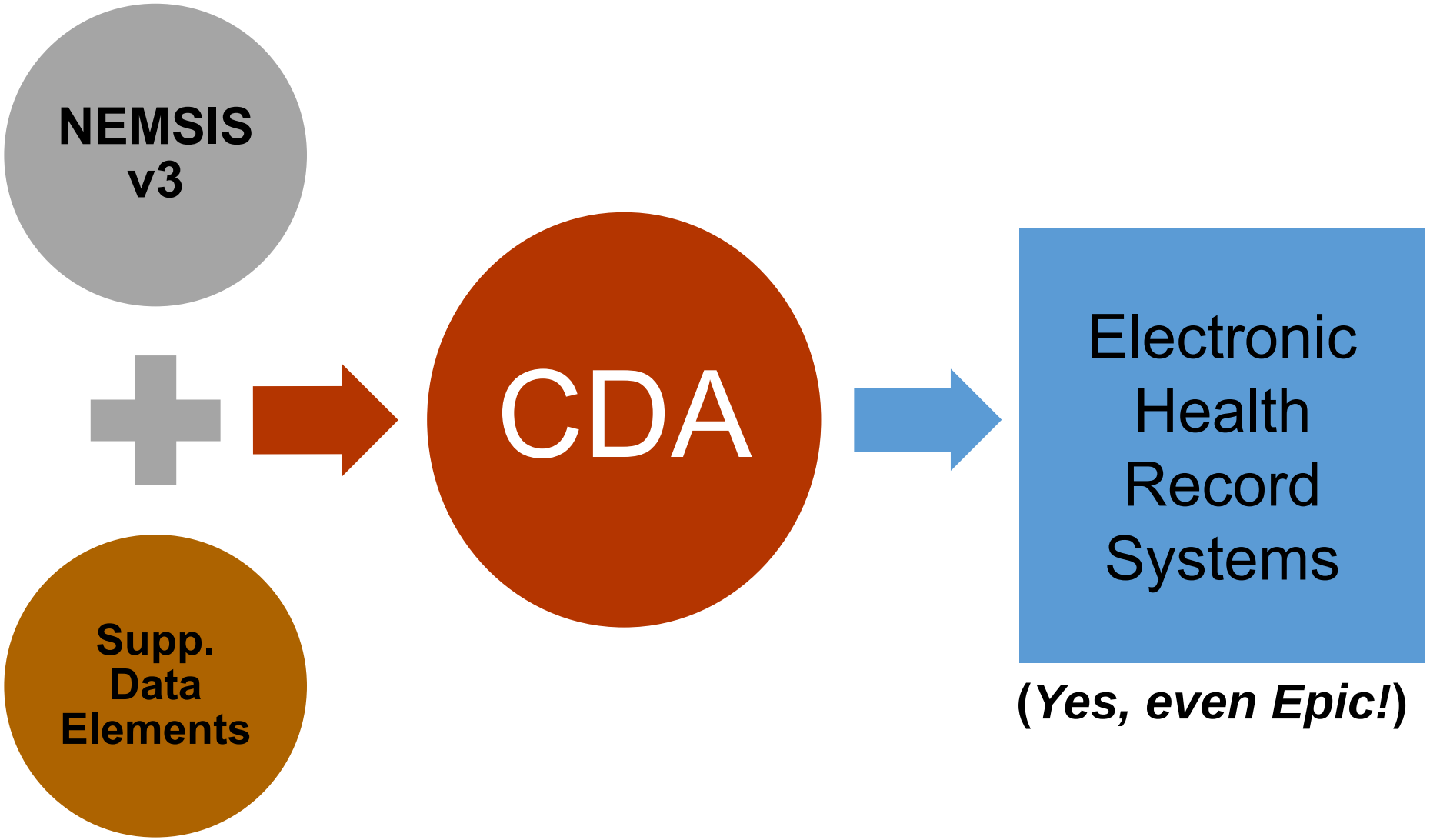
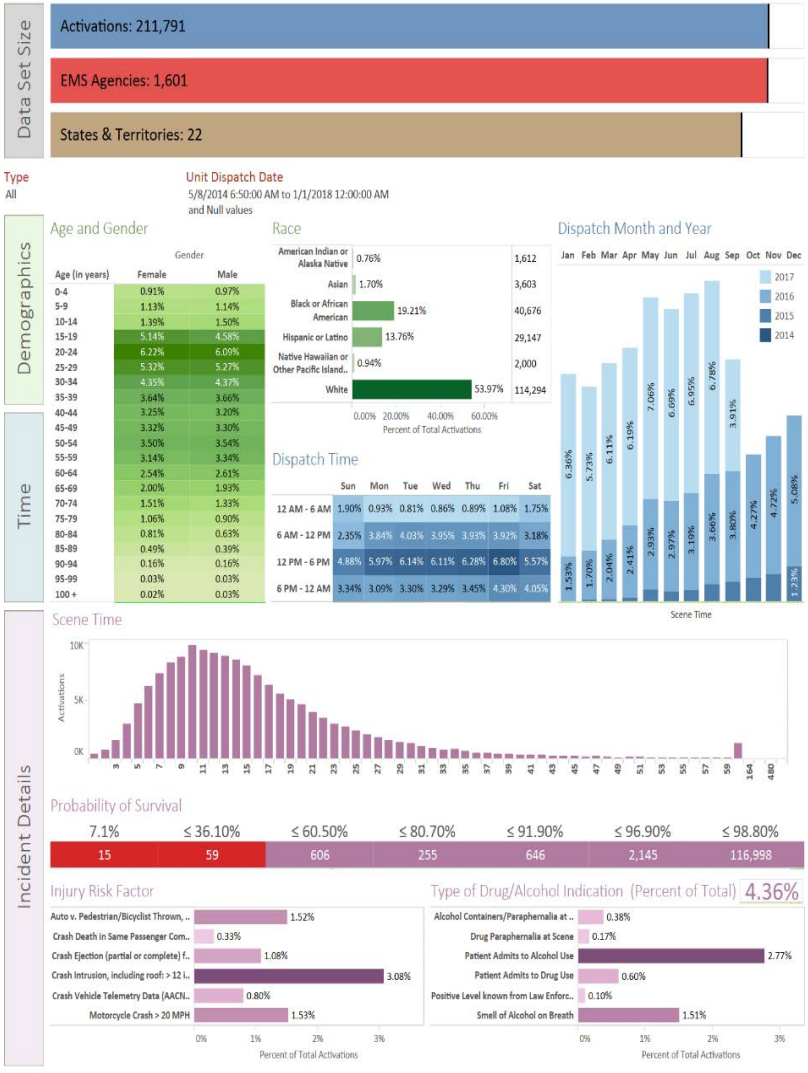
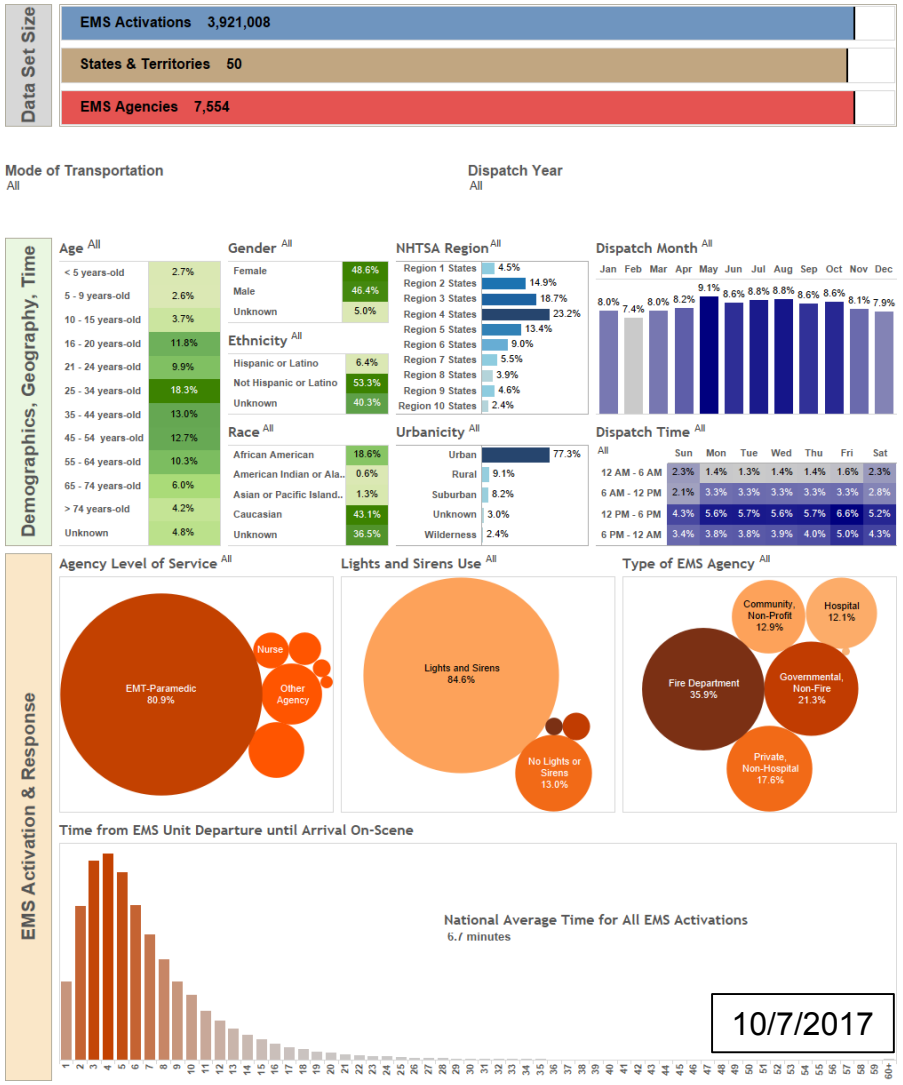


NEMSIS v3 and later are sufficient “rigid” to hotspot, analyze

NEMSIS v3 Dashboard: MVCs



NEMSIS v2: Traffic Crashes (#1)



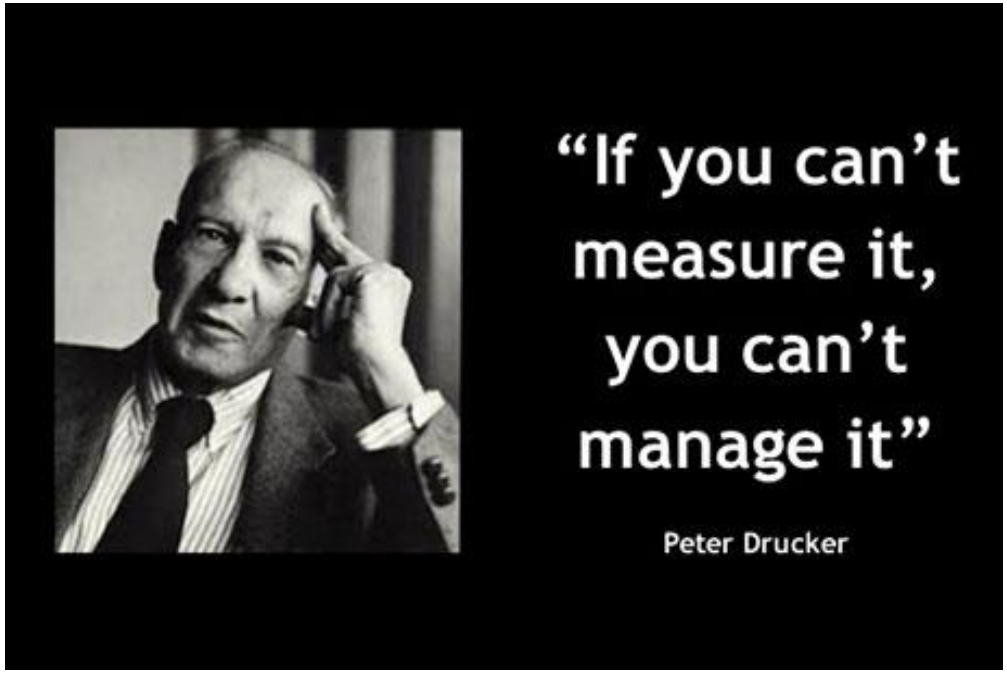
Horizontal vs. Vertical Data Analytics (Fire/EMS vs. CP/MIH)

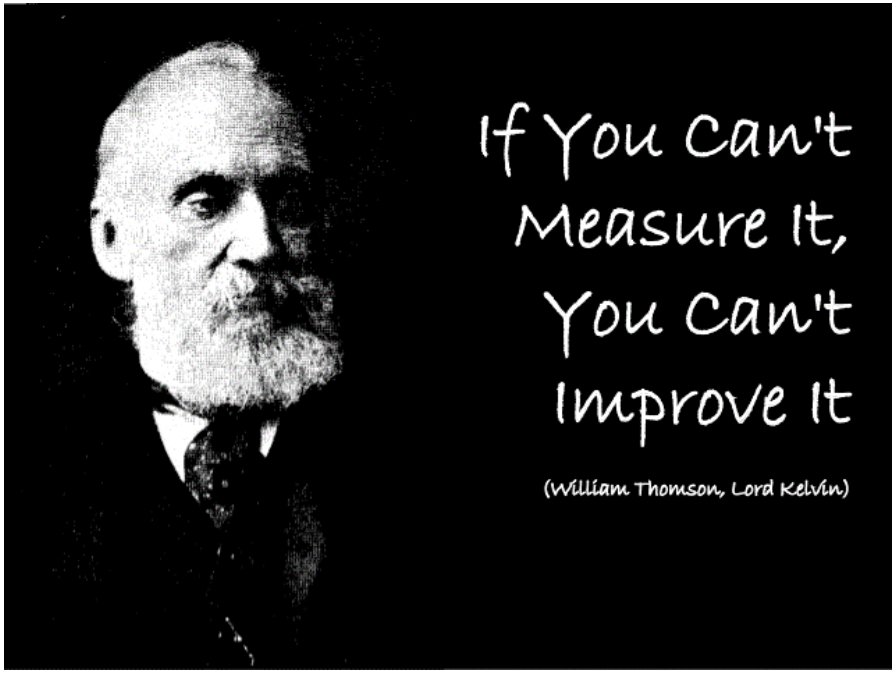
EMS & Fire Analytics: EMS COMPASS, California Core Measures, etc.

Patient-Specific Analytics "Over Time": CP/MIH, Electronic Health Records

CP/MIH encounters may be largely “non-clinical,” but…

THEY STILL NEED TO BE MEASURED.





Peter Drucker
Business Guru

Sir William Thomson
(Lord Kelvin)
Temperature Guru

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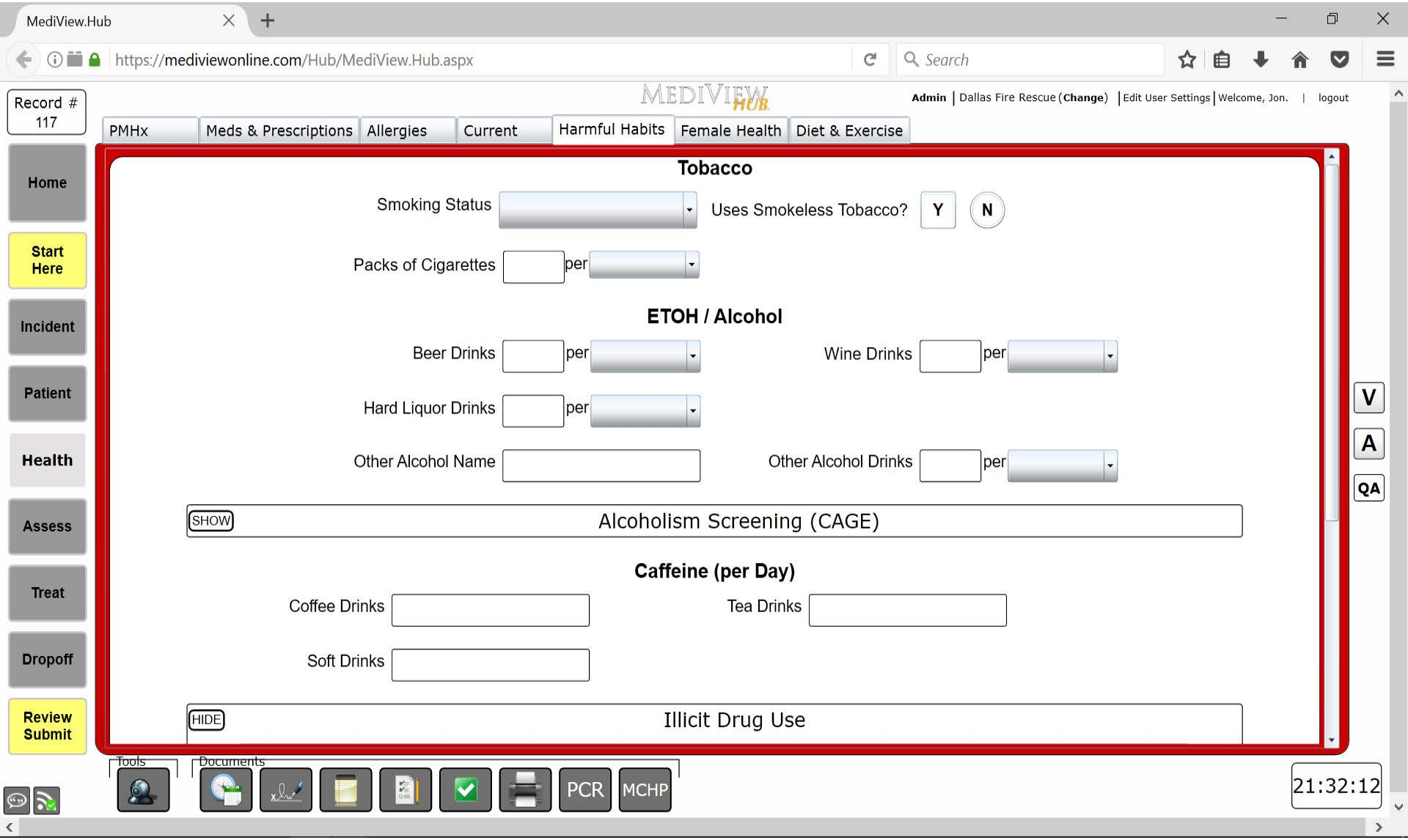

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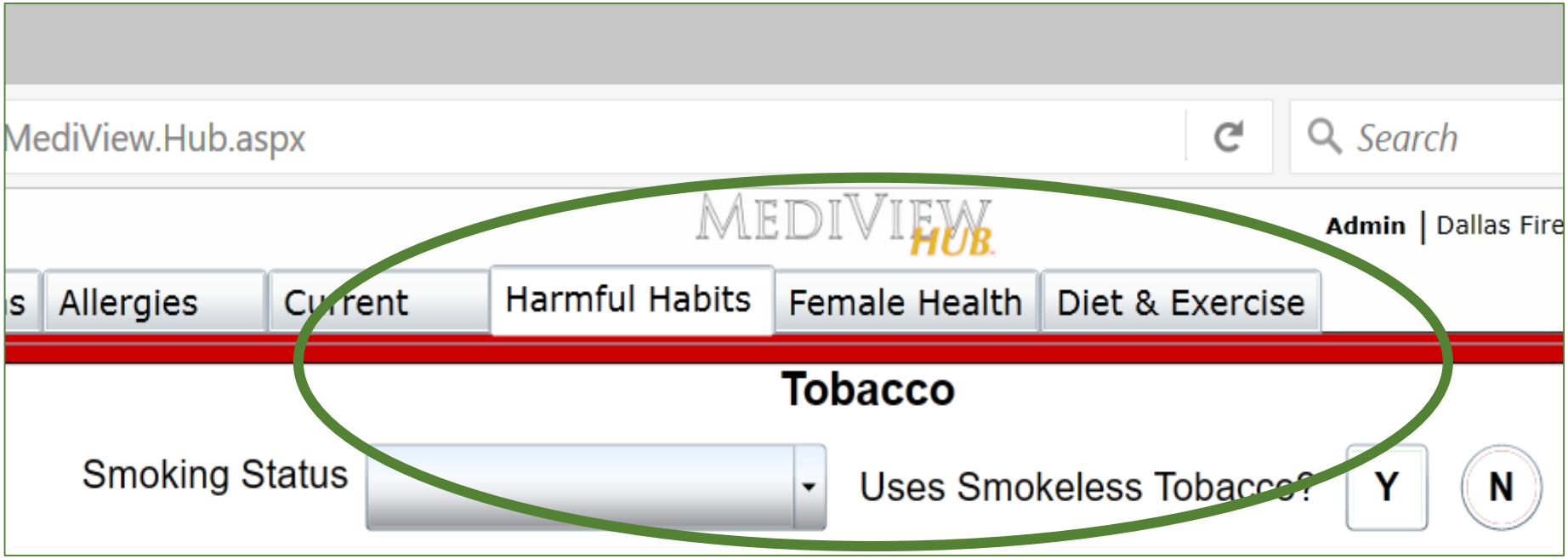

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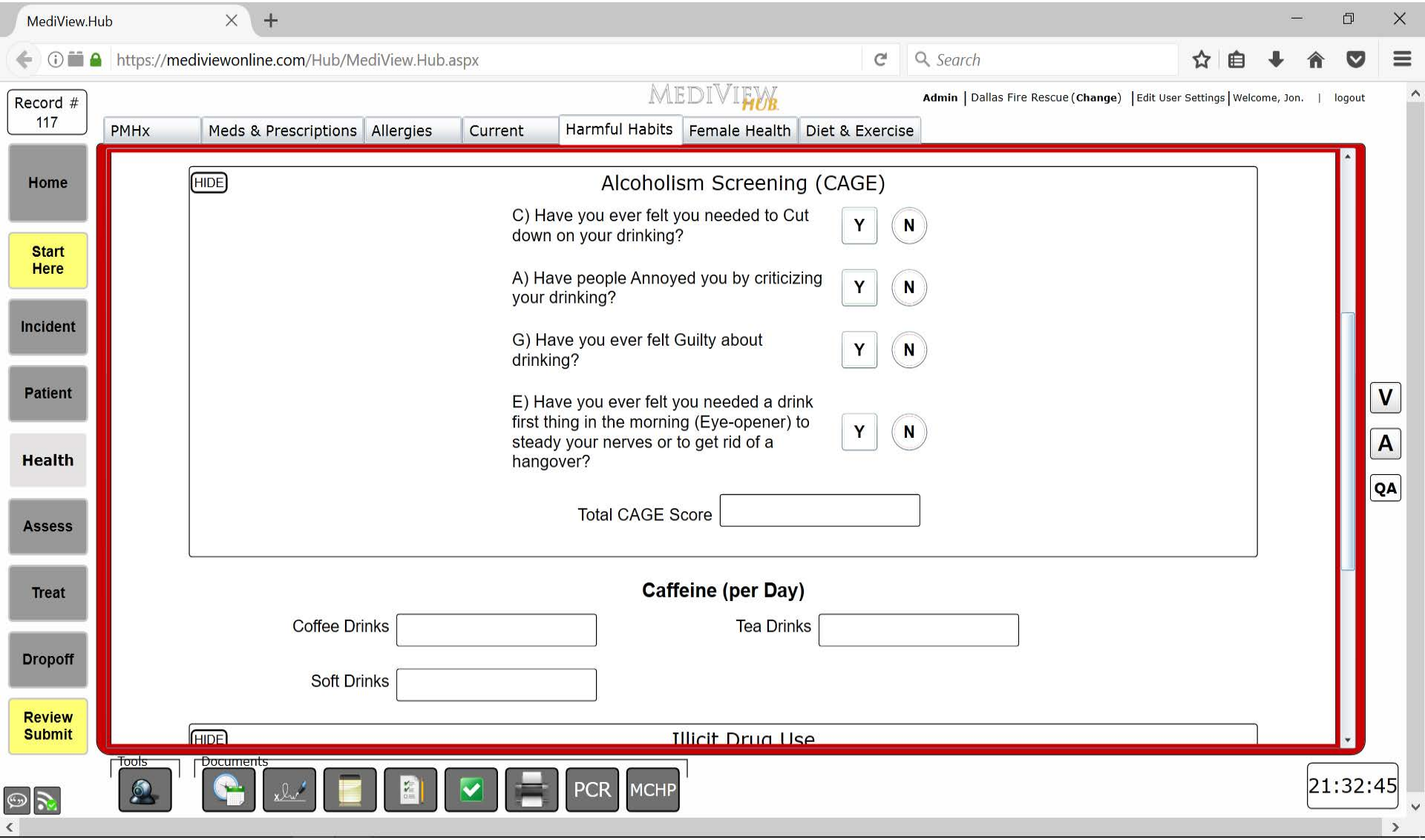

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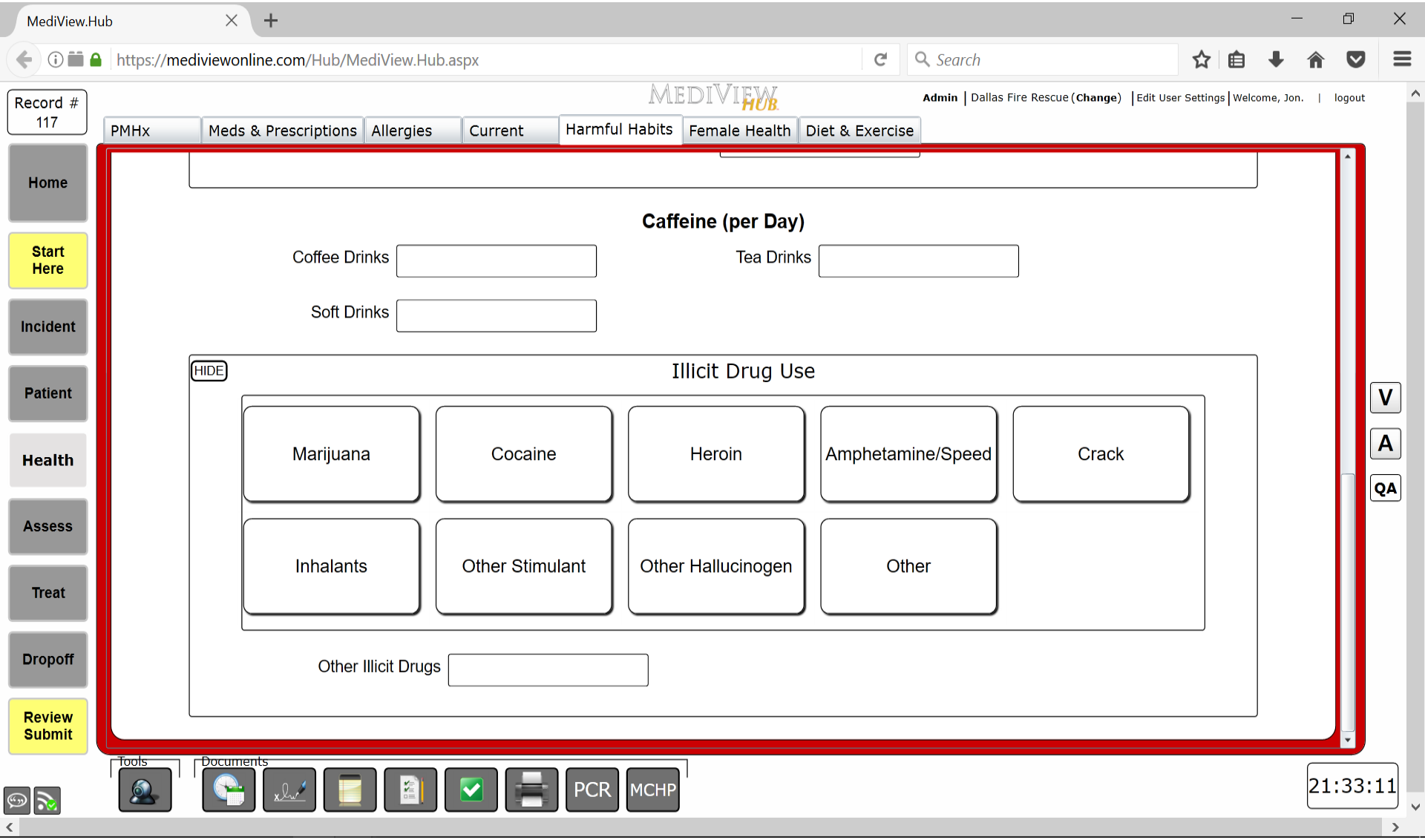

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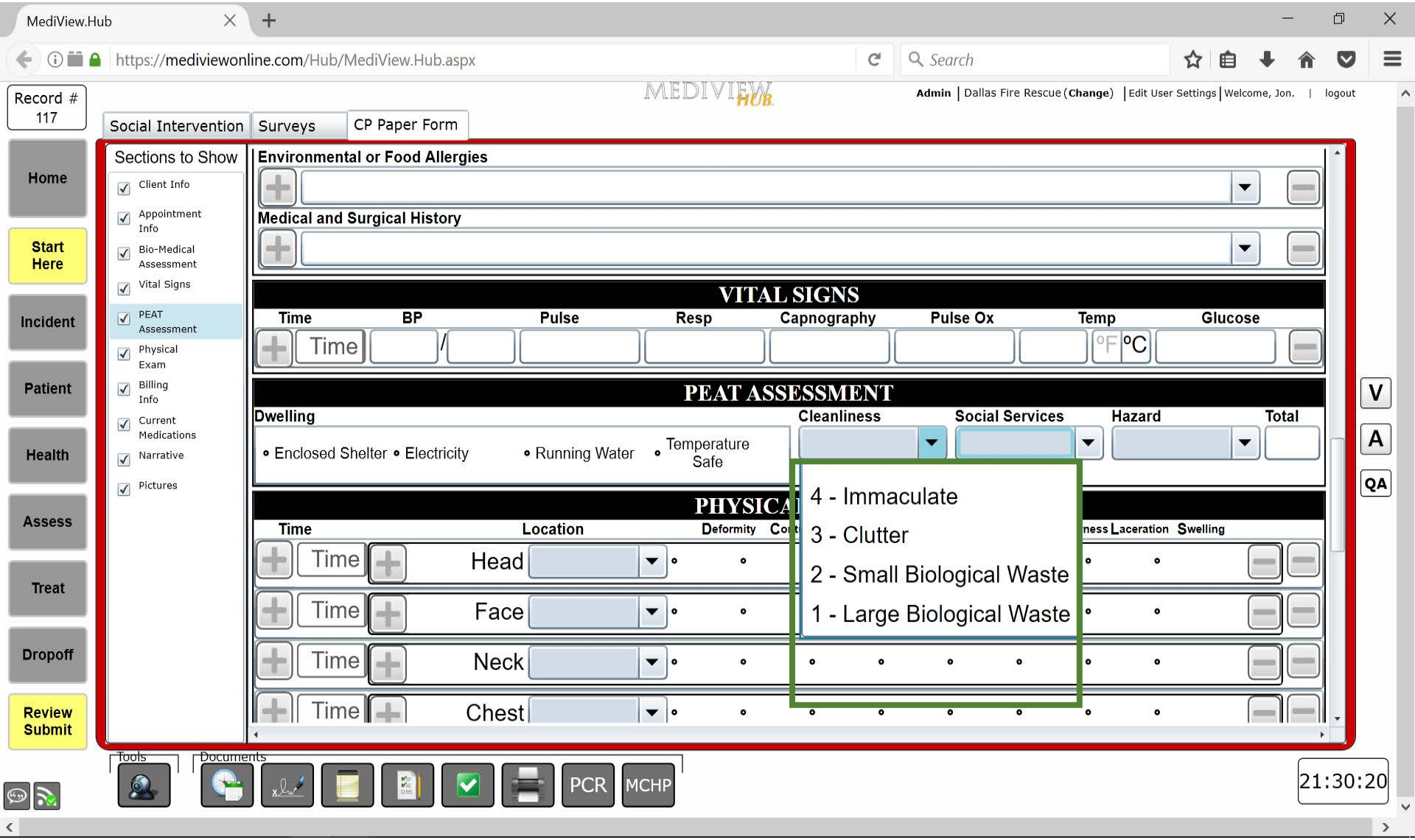

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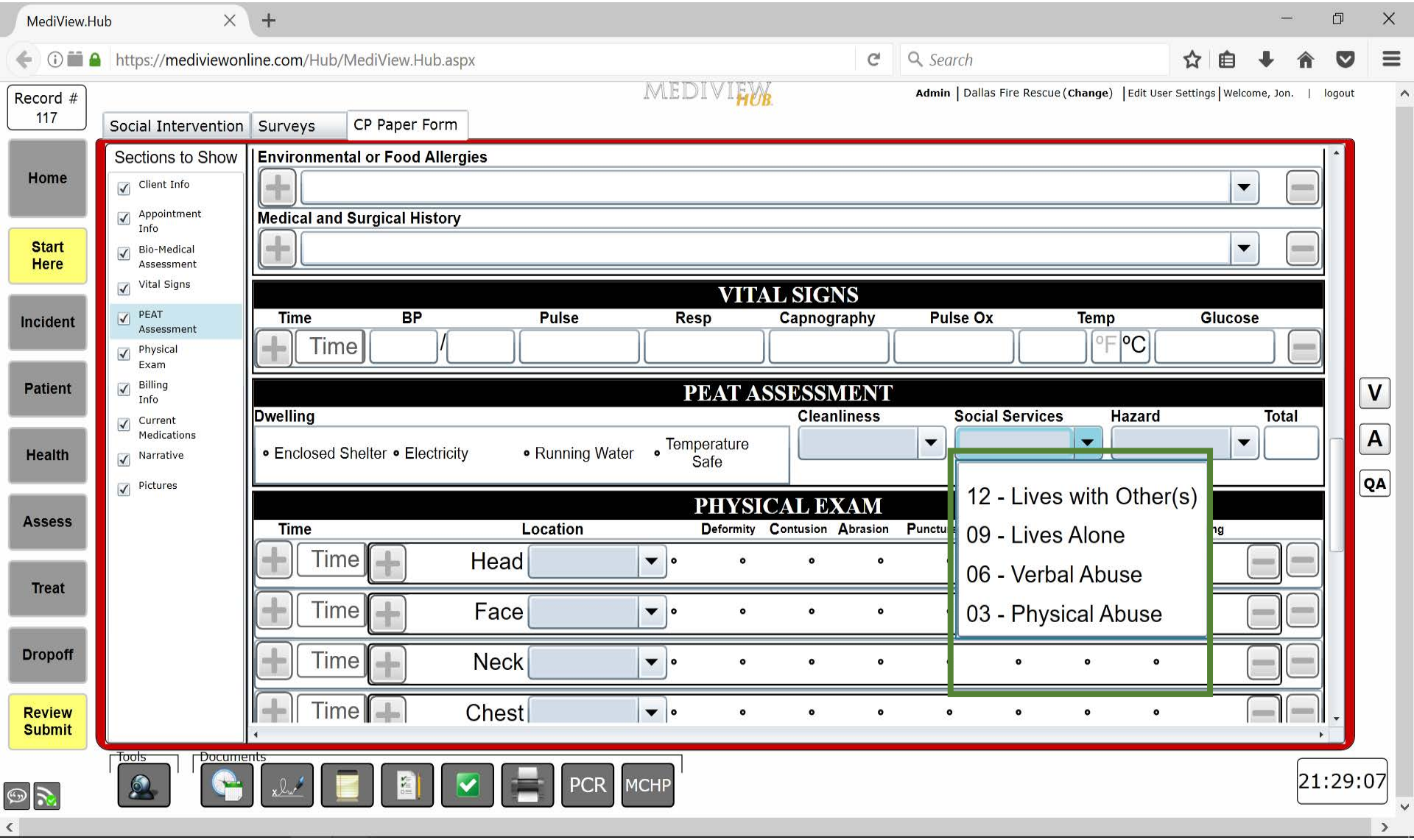

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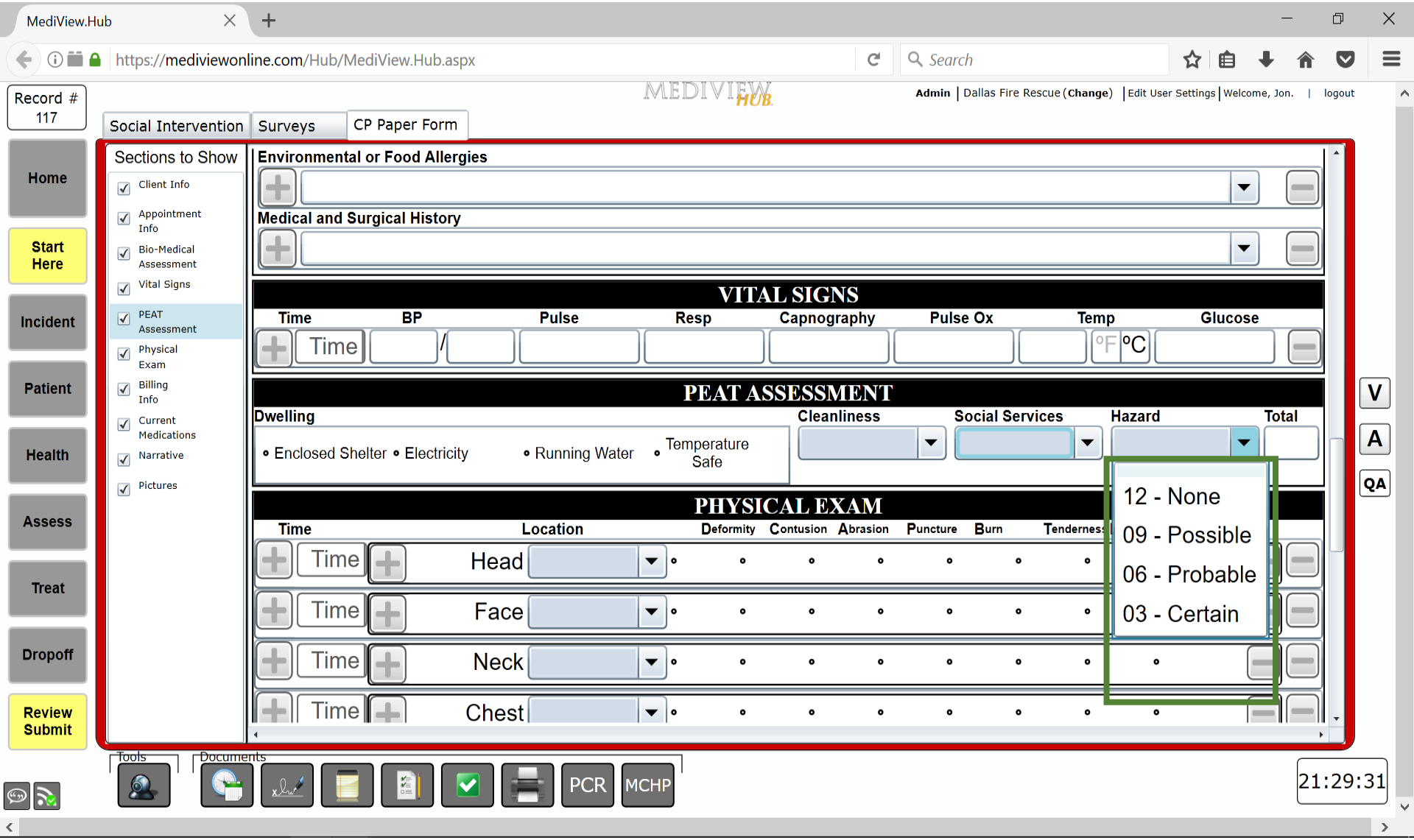

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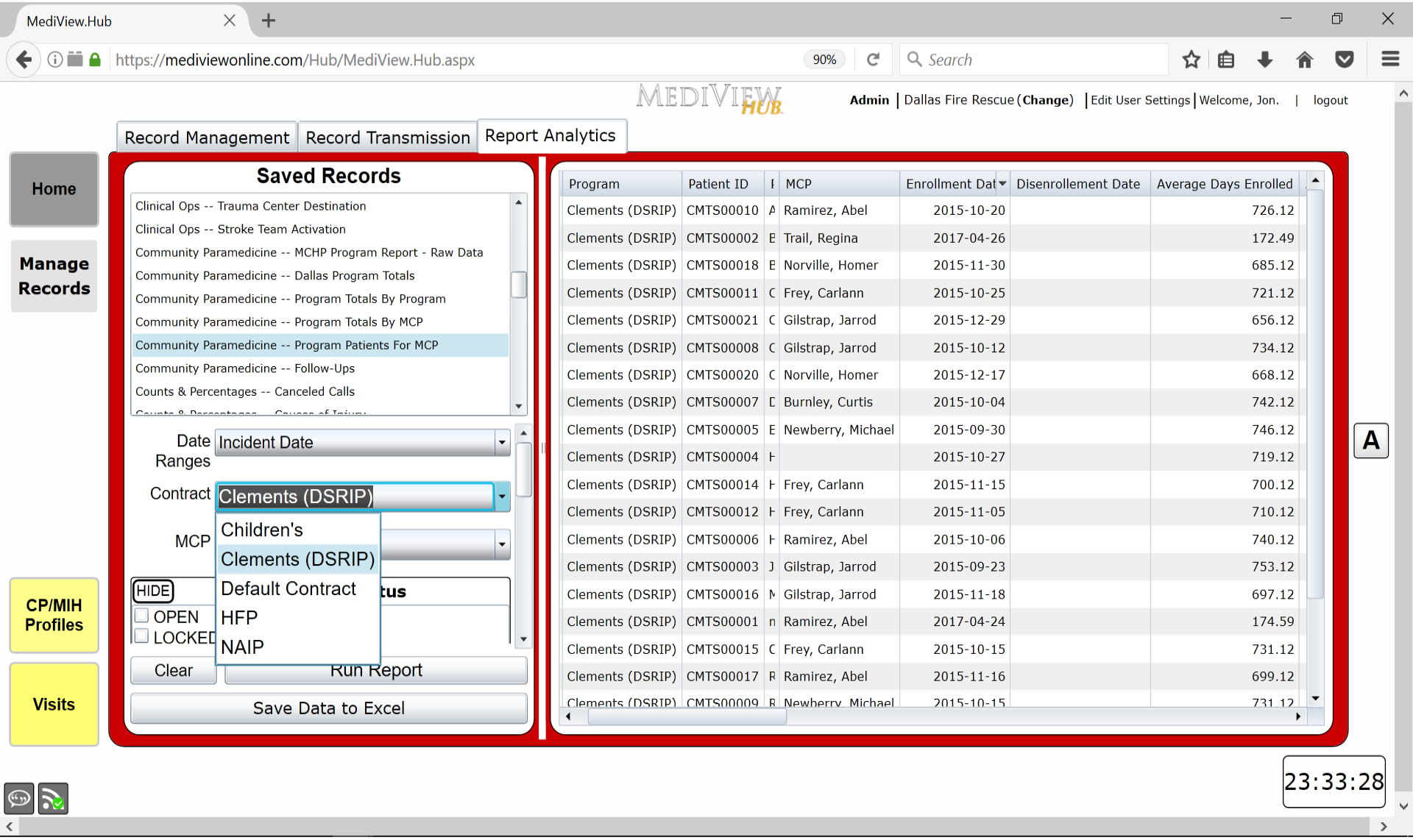

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