



2021 Northern California Hospital Quality Symposium

Presented by Partnership HealthPlan of California
Helping our members, and the communities we serve, be healthy.

Tuesday, June 22, 2021
8:30 AM – 1:30 PM



Housekeeping

- **Audio**
 - All attendees will be muted to eliminate distractions during the event.
- **Video**
 - Because of potential bandwidth issues, all attendees should refrain from using their video function.
- **Breaks**
 - There will be (2) 5-minute breaks
- **Questions**
 - Speakers will allow time for questions at the end of the presentation. If you have a question for the speaker, please type your question in the Chat Box located on the bottom right corner of your screen)

Ground Rules

- ❖ Be open-minded
- ❖ Respect all ideas and opinions
- ❖ Be engaged and ask questions
- ❖ Complete the evaluation
- ❖ Share & learn

Evaluation

WE NEED YOUR FEEDBACK

- Immediately following the Symposium you will receive an evaluation via Survey Monkey.
- Please complete the brief evaluation– your feedback is important to us.

CME/CE CREDITS

- If you wish to be considered for CME/CE credits, you will be able to enter your name, title and license number at the end of the evaluation.

NOTE: Application for CE credit has been filed with the California Board of Registered Nursing, Provider CEP16728 for (hours TBD) contact hours. Determination of credit is pending.

Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.

Conflict of Interest

All presenters have signed a conflict of interest form and have declared that there is no conflict of interest and nothing to disclose for this presentation.

Opening Remarks

Opening Remarks from Partnership HealthPlan of California



Dr. Robert Moore, MD, MPH, MBA
Chief Medical Officer
Partnership HealthPlan of California

Robert Moore, MD, MPH, MBA



Dr. Moore serves as Chief Medical Officer of Partnership HealthPlan of California, a County Organized Health System providing Medi-Cal Managed Care services to 600,000 members in 14 Northern California counties. He is a graduate of the UCSF School of Medicine, the Columbia University School of Public Health, Western Governor's University Graduate Business School, and the Family Medicine residency at Ventura County Medical Center. He has completed post-graduate training in Health Center Management, Health Care Leadership, and Quality Improvement. His professional interests include delivery system transformation, palliative care, intensive outpatient care management, chronic pain, and addressing social determinants of health.

About Us



Mission:

To help our members, and the communities we serve, be healthy.

Vision:

To be the most highly regarded managed care plan in California.

How We Are Organized

PHC is a County Organized Health Systems (COHS) Plan

Non-Profit Public Plan

Low Administrative Rate (less than 4 percent) allows for PHC to have a higher provider reimbursement rate and support community initiatives

Local Control and Autonomy

A local governance that is sensitive and responsive to the area's healthcare needs

Community Involvement

Advisory boards that participate in collective decision making regarding the direction of the plan

Major PHC Updates

- Changes in DHCS Quality Measures
- NCQA Accreditation

Ways PHC Supports Hospital Quality

- Incentivize hospital performance on a set of meaningful measures (Hospital QIP)
- Find ways to support small + rural hospitals in PHC network
- Develop platforms for hospital-hospital collaboration
- Seek + disseminate new and current information



Hospital Quality Improvement Program

- Pay-for-performance program started to **support hospitals** serving PHC members **to improve quality and health outcomes.**
- Substantial Financial Incentives; approximately \$12.2 million awarded among 26 hospitals in 2019-2020
- Six domains: Readmissions, Advance Care Planning, Clinical Quality (OB / Newborn / Pediatrics), Patient Safety, Patient Experience, and Operations and Efficiency



Guiding Principles

1. Where possible, pay for outcomes instead of processes
2. Actionable measures
3. Feasible data collection
4. Collaboration with providers in measure development
5. Simplicity in the number of measures
6. Representation of different domains of care
7. Align measures that are meaningful
8. Stable measures



2020-21 Hospital QIP

- For 2020-21, we have 26 hospitals participating in the Hospital QIP.
- Hospitals located in: Humboldt, Lake, Lassen, Marin, Mendocino, Modoc, Napa, Shasta, Siskiyou, Solano, Sonoma, Tehama, and Trinity counties

Presentation 1

Deconstructing the Origins of Racial/Ethnic Health Disparities: Reflections on Quality and Equality



Sharon GE Washington, Ed.D., MPH
Founder and CEO
Sharon Washington Consulting LLC

Sharon GE Washington, Ed.D., MPH



An award-winning educator, Sharon GE Washington is renowned for engaging diverse audiences on the complex intersections of race, historical trauma, social inequity and justice, and the impact of these factors on health outcomes.

As a diversity, equity, inclusion & anti-racist (DEIA) educator and consultant, Sharon has worked in various healthcare and corporate settings to develop diversity and inclusion committees, provide executive coaching, facilitate safe and brave space dialogues, develop curriculum, and guide organizational change. She also created Critically Conscious Connections, an online learning platform with self-directed content to increase DEIA literacy, allyship, and accompliceship.

Before launching her consulting business, Sharon was an Assistant Professor of Instruction for the Department of Social and Behavioral Sciences (SBS) at Temple University. Prior to joining Temple, Sharon served as a lecturer in the Department of Medical Education, and Director for Curriculum Development and Academic Enhancement for the Center for Multicultural and Community Affairs (CMCA) at the Icahn School of Medicine at Mount Sinai.

Sharon is a Gates Millennium Scholar (GMS), class of 2003, and served as President of the GMS Alumni Association. She received her Bachelor of Arts in African American Studies from Temple University and her Master of Public Health from the Columbia University Mailman School of Public Health. Sharon earned her Doctorate of Education at Teachers College of Columbia University.

Deconstructing the Origins of Racial/Ethnic Health Disparities: Reflections on Quality & Equality



Sharon GE Washington, Ed.D., MPH

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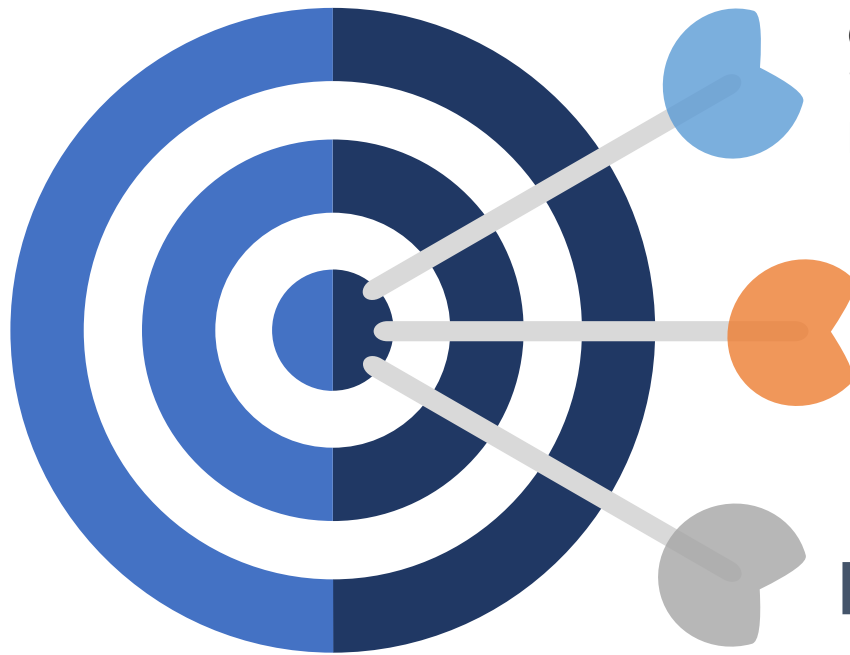


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Presentation Objectives



Contextualize

Ground discourse of racial health inequities within their social-political-historical context

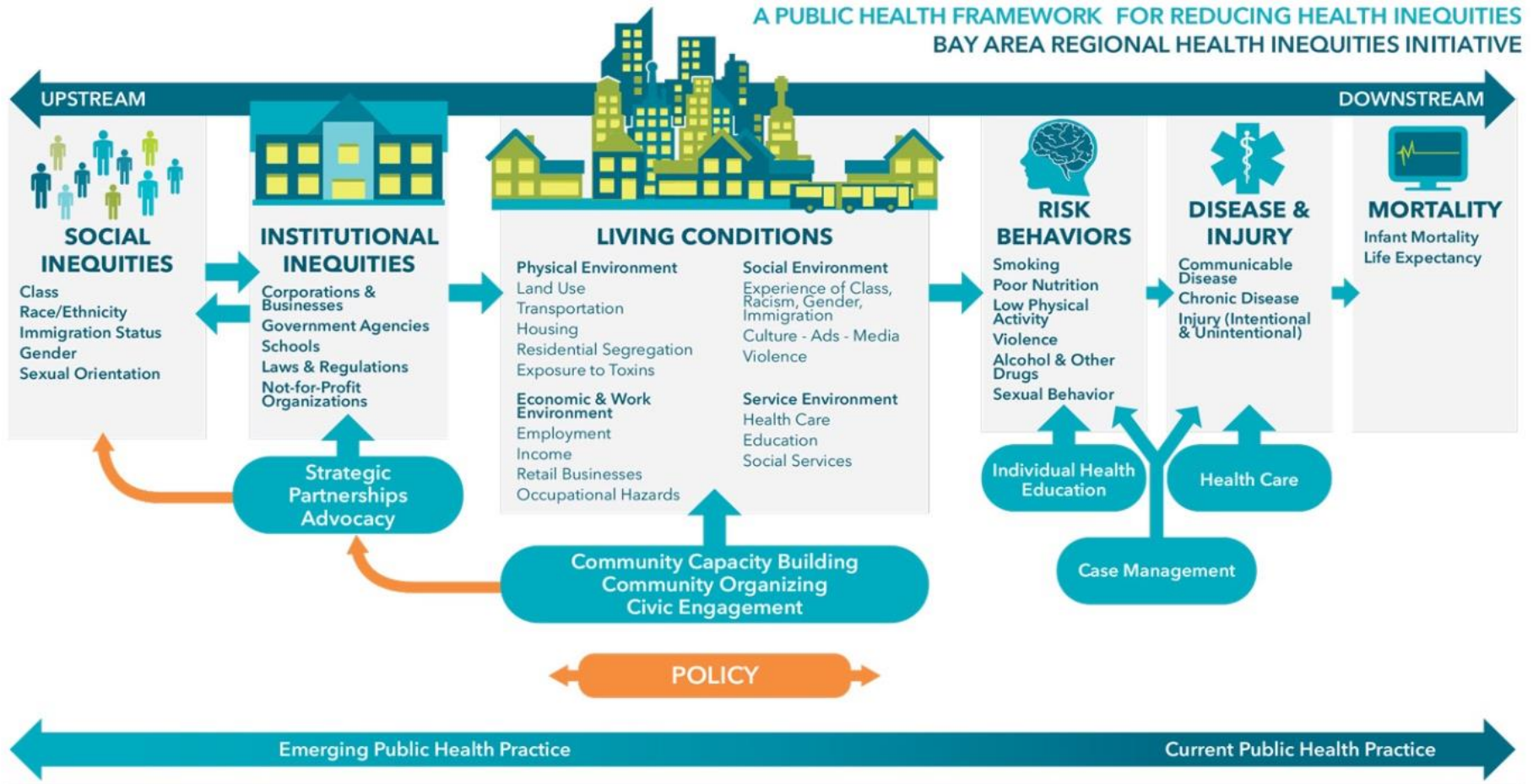
Critique

Offer constructive observations on growth opportunities within current DEI strategies recommended in the field

Recommend

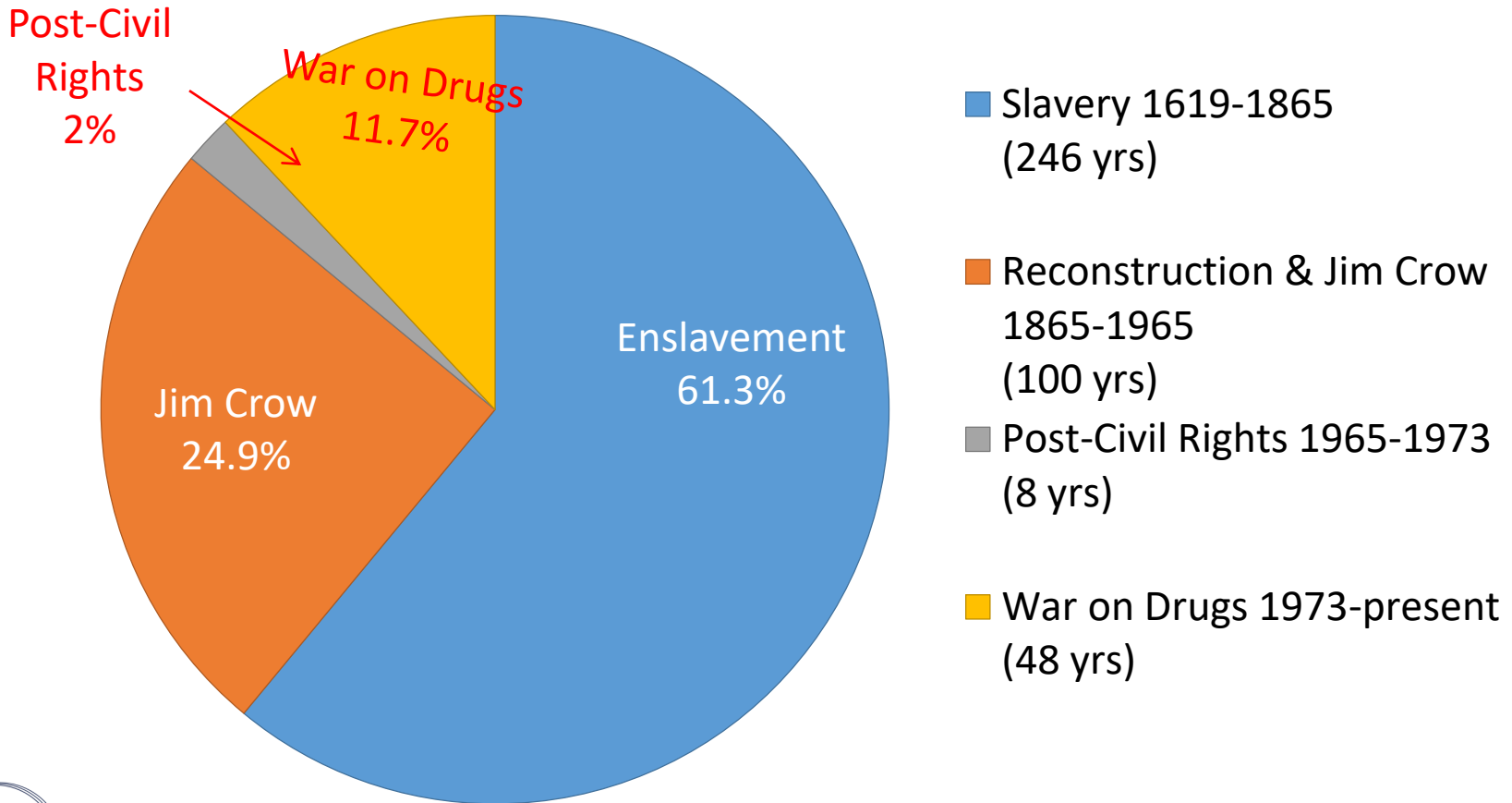
Provide critical opportunities for making anti-racist changes in health care to promote health equity

Racism & SDOH



The Legacy of Inequity

African American Context in the United States



1619-2021 = 402 years

Origins of Health Disparities

Historical Trauma

- Genocide
- Cultural genocide
- Mass death
- Disease
- Depression
- Loss of language
- Loss of land
- Epigenetics

Intergenerational Poverty

- Role of class in health disparities
- Intergenerational educational disparities
- Housing inequality
- Unequal access to govt. support programs

Historical Trauma

Legal/Political Inequality

Intergenerational Poverty

Discrimination & Stress

Legal/Political Inequality

- Broken Indian Treaties
- 3/5 Compromise
- Black Codes
- Plessy v. Ferguson
- Hyper Policing & Prison Industrial Complex

Discrimination

- Role of stress in disparities
- Epigenetics
- Mental health & coping
- Racial Profiling & Prison Industrial Complex

“But that was so long ago...”



Harriet Tubman
Mar 1822 – Mar 10, 1913



Rosa Parks
Feb 4, 1913 – Oct. 24, 2005



Redoshi, Died 1937
One of last survivors of
Clotilda (arrived at 12 yrs)



Sylvester Magee
Died Oct. 15, 1971
Last living enslaved
African American

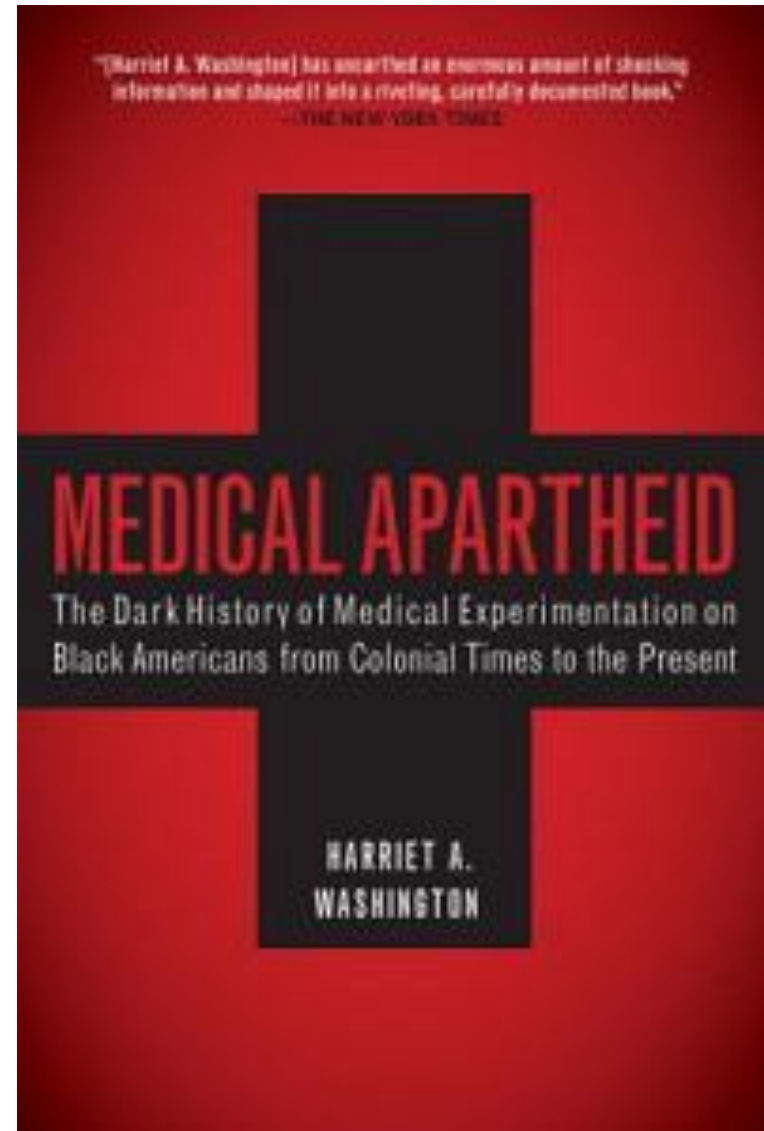


5 years old in 1968 = 58 years old in 2021



History of Race-Based Medicine

- Beliefs about biological differences between Blacks and Whites prevalent for centuries
- In the U.S., scientists, slave owners, presidents, and physicians established these false beliefs to justify slavery, and the inhumane treatment of black medical subjects
 - Dr. James Marion Sims
 - State funded eugenics programs
 - Mustard gas research WWII
 - Tuskegee syphilis research 1932-1972
- In the 19th century, prominent physicians sought to establish the “physical peculiarities” of blacks that could “serve to distinguish him from the white man.” Such “peculiarities” included thicker skulls, less sensitive nervous systems, and diseases inherent in dark skin (Tidyman, 1826)



Samuel Cartwright

- Blacks bore a “Negro disease [making them] insensible to pain when subjected to punishment” (Cartwright, 1851).
- Slaves should be kept in a submissive state and treated like children, with "care, kindness, attention, and humanity to prevent and cure them from running away." If they nonetheless became dissatisfied with their condition, they should be whipped to prevent them from running away.
- In describing his theory and cure for drapetomania, Cartwright relied on passages of Christian scripture dealing with slavery.



Anarcha, Lucy & Betsey

- Other physicians believed that blacks could tolerate surgical operations with little, if any, pain at all.
- Researchers continued to experiment on black people well into 20th century based in part on the assumption that the black body was more resistant to pain and injury (Washington, 2006).



Rest in Power: Anarcha, Lucy & Betsey

Racial bias in pain assessment and treatment recommendations, and false beliefs about biological differences between blacks and whites

Kelly M. Hoffman^{a,1}, Sophie Trawalter^a, Jordan R. Axt^a, and M. Norman Oliver^{b,c}

^aDepartment of Psychology, University of Virginia, Charlottesville, VA 22904; ^bDepartment of Family Medicine, University of Virginia, Charlottesville, VA 22908; and ^cDepartment of Public Health Sciences, University of Virginia, Charlottesville, VA 22908

Table 1. Percentage of white participants endorsing beliefs about biological differences between blacks and whites

Item	Study 1: Online sample (n = 92)	Study 2			
		First years (n = 63)	Second years (n = 72)	Third years (n = 59)	Residents (n = 28)
Blacks age more slowly than whites	23	21	28	12	14
Blacks' nerve endings are less sensitive than whites'	20	8	14	0	4
Black people's blood coagulates more quickly than whites'	39	29	17	3	4
Whites have larger brains than blacks	12	2	1	0	0
Whites are less susceptible to heart disease than blacks*	43	63	83	66	50
Blacks are less likely to contract spinal cord diseases*	42	46	67	56	57
Whites have a better sense of hearing compared with blacks	10	3	7	0	0
Blacks' skin is thicker than whites'	58	40	42	22	25
Blacks have denser, stronger bones than whites*	39	25	78	41	29
Blacks have a more sensitive sense of smell than whites	20	10	18	3	7
Whites have a more efficient respiratory system than blacks	16	8	3	2	4
Black couples are significantly more fertile than white couples	17	10	15	2	7
Whites are less likely to have a stroke than blacks*	29	49	63	44	46
Blacks are better at detecting movement than whites	18	14	15	5	11
Blacks have stronger immune systems than whites	14	21	15	3	4
False beliefs composite (11 items), mean (SD)	22.43 (22.93)	14.86 (19.48)	15.91 (19.34)	4.78 (9.89)	7.14 (14.50)
Range	0-100	0-81.82	0-90.91	0-54.55	0-63.64
Combined mean (SD) (medical sample only)			11.55 (17.38)		

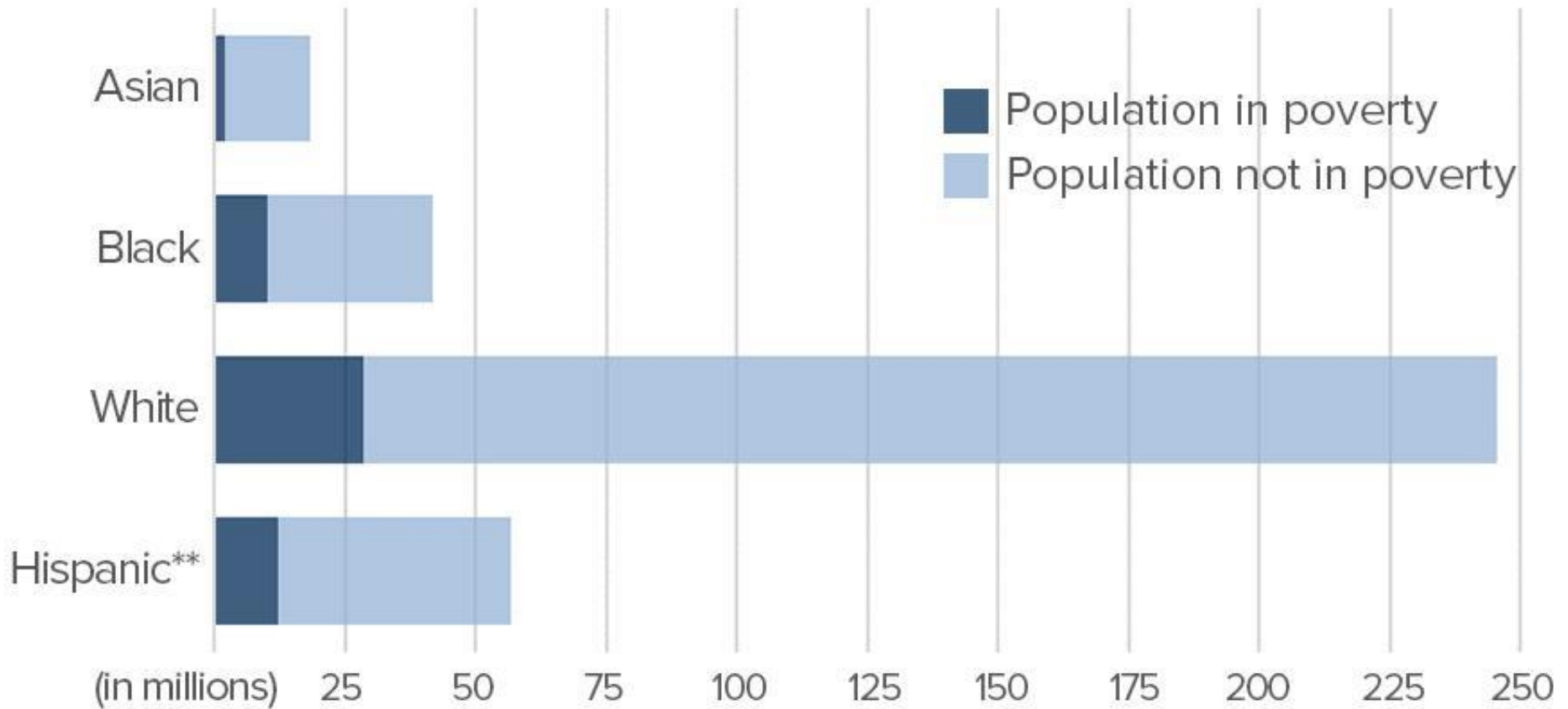
Race-Based Medicine & Health Care

- Believing race to be biological leads to the practice of race-based medicine
- Race rather than racism becomes risk factor for disease, obscuring the roots of inequality and history of medical discrimination
- Focusing on biological difference leads to bias and false beliefs among white clinicians, poor clinical care, and worse health outcomes
- Lack of racial literacy deprives providers & leaders from interrupting inherited practices of problematic race-based medicine

Table 1. Examples of Race Correction in Clinical Medicine.*

Tool and Clinical Utility	Input Variables	Use of Race	Equity Concern
Cardiology			
<p>The American Heart Association's Get with the Guidelines—Heart Failure⁹ (https://www.mdcalc.com/gwtg-heart-failure-risk-score)</p> <p><i>Predicts in-hospital mortality in patients with acute heart failure. Clinicians are advised to use this risk stratification to guide decisions regarding initiating medical therapy.</i></p>	<p>Systolic blood pressure Blood urea nitrogen Sodium Age Heart rate History of COPD Race: black or nonblack</p>	<p>Adds 3 points to the risk score if the patient is identified as nonblack. This addition increases the estimated probability of death (higher scores predict higher mortality).</p>	<p>The original study envisioned using this score to “increase the use of recommended medical therapy in high-risk patients and reduce resource utilization in those at low risk.”⁹ The race correction regards black patients as lower risk and may raise the threshold for using clinical resources for black patients.</p>
Cardiac surgery			
<p>The Society of Thoracic Surgeons Short Term Risk Calculator¹⁰ (http://riskcalc.sts.org/stswebriskcalc/calculate)</p> <p><i>Calculates a patient's risks of complications and death with the most common cardiac surgeries. Considers >60 variables, some of which are listed here.</i></p>	<p>Operation type Age and sex Race: black/African American, Asian, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, or “Hispanic, Latino or Spanish ethnicity”; white race is the default setting. BMI</p>	<p>The risk score for operative mortality and major complications increases (in some cases, by 20%) if a patient is identified as black. Identification as another non-white race or ethnicity does not increase the risk score for death, but it does change the risk score for major complications such as renal failure, stroke, and prolonged ventilation.</p>	<p>When used preoperatively to assess a patient's risk, these calculations could steer minority patients, deemed higher risk, away from these procedures.</p>
Nephrology			
<p>Estimated glomerular filtration rate (eGFR) MDRD and CKD-EPI equations¹¹ (https://ukidney.com/nephrology-resources/egfr-calculator)</p> <p><i>Estimates glomerular filtration rate on the basis of a measurement of serum creatinine.</i></p>	<p>Serum creatinine Age and sex Race: black vs. white or other</p>	<p>The MDRD equation reports a higher eGFR (by a factor of 1.210) if the patient is identified as black. This adjustment is similar in magnitude to the correction for sex (0.742 if female). The CKD-EPI equation (which included a larger number of black patients in the study population), proposes a more modest race correction (by a factor of 1.159) if the patient is identified as black. This correction is larger than the correction for sex (1.018 if female).</p>	<p>Both equations report higher eGFR values (given the same creatinine measurement) for patients identified as black, suggesting better kidney function. These higher eGFR values may delay referral to specialist care or listing for kidney transplantation.</p>
<p>Organ Procurement and Transplantation Network: Kidney Donor Risk Index (KDRI)¹² (https://optn.transplant.hrsa.gov/resources/allocation-calculators/kdpi-calculator/)</p> <p><i>Estimates predicted risk of donor kidney graft failure, which is used to predict viability of potential kidney donor.</i>[†]</p>	<p>Age Hypertension, diabetes Serum creatinine level Cause of death (e.g., cerebrovascular accident) Donation after cardiac death Hepatitis C Height and weight HLA matching Cold ischemia En bloc transplantation Double kidney transplantation Race: African American</p>	<p>Increases the predicted risk of kidney graft failure if the potential donor is identified as African American (coefficient, 0.179), a risk adjustment intermediate between those for hypertension (0.126) and diabetes (0.130) and that for elevated creatinine (0.209–0.220).</p>	<p>Use of this tool may reduce the pool of African-American kidney donors in the United States. Since African-American patients are more likely to receive kidneys from African-American donors, by reducing the pool of available kidneys, the KDRI could exacerbate this racial inequity in access to kidneys for transplantation.</p>

Poverty and Race in the United States, 2015*



*Official Poverty Measure

**Hispanic can be of any race

Data source: U.S. Census Bureau

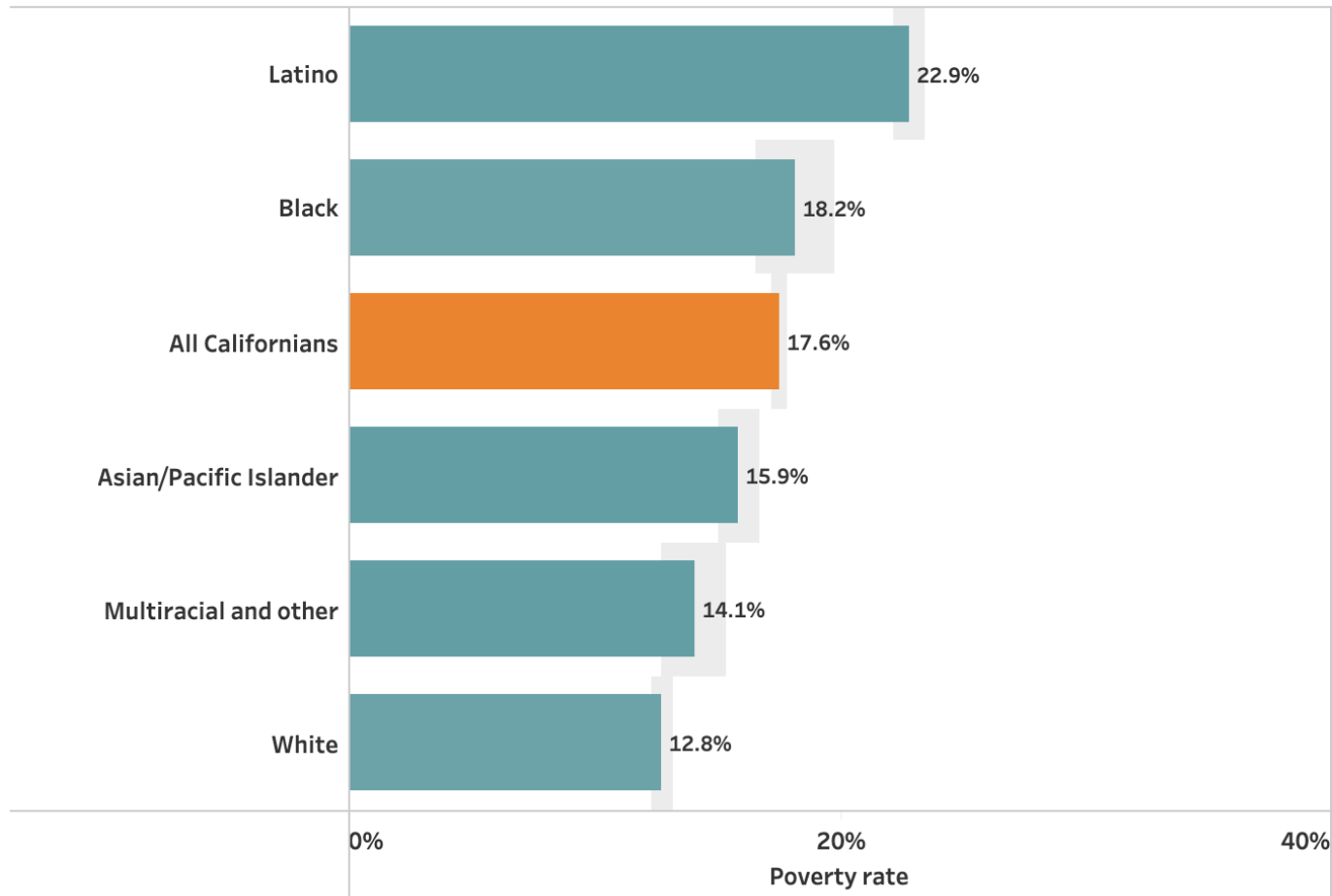
poverty.ucdavis.edu

UCDAVIS

CENTER FOR POVERTY RESEARCH

Who's in Poverty in California?

Latinos have the highest poverty rates across racial/ethnic groups



Select a category

Race/Ethnicity

Margins of error (indicated by light gray bars) are higher for less-populous groups due to smaller sample sizes.

Source: California Poverty Measure, 2018.

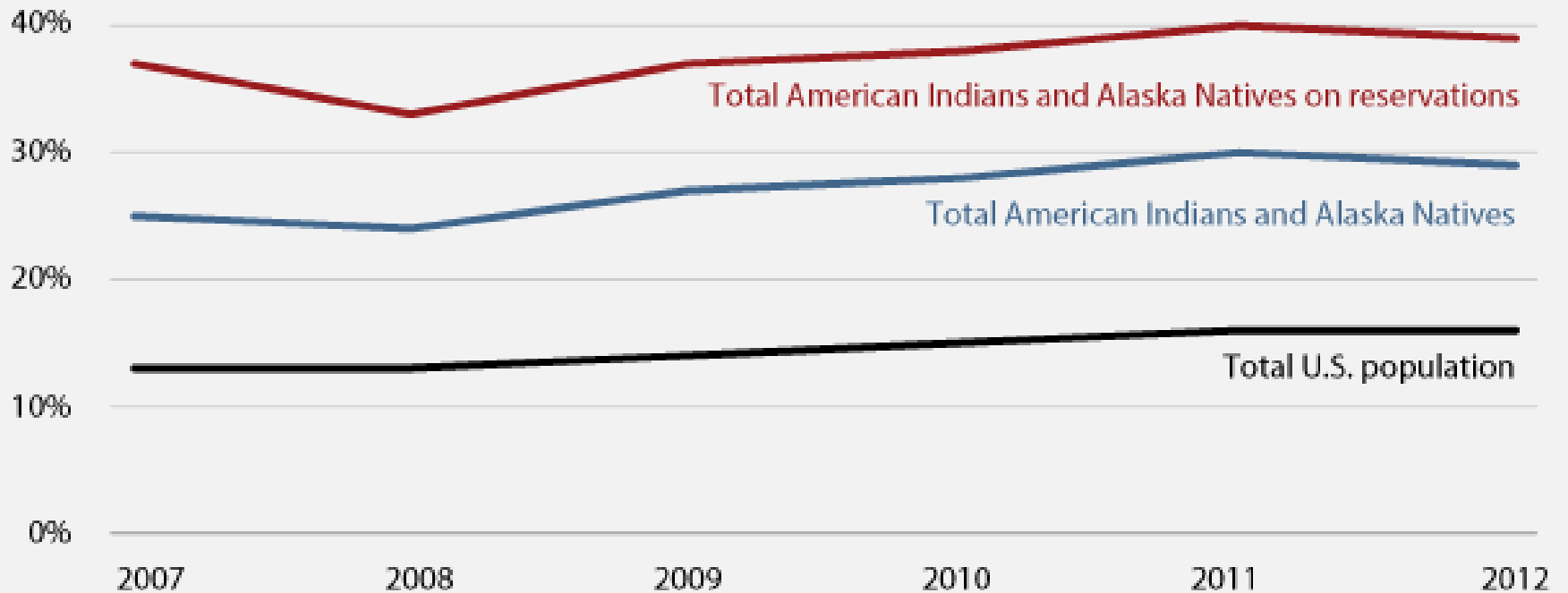
Notes: Most categories show responses about race from the American Community Survey. People of any race who report Hispanic, Latino, or Spanish origin are categorized as Latino.

From: <https://www.ppic.org/interactive/whos-in-poverty-in-california>

FIGURE 1

American Indians and Alaska Natives experience the highest rate of poverty in the country

Percentage of population in poverty

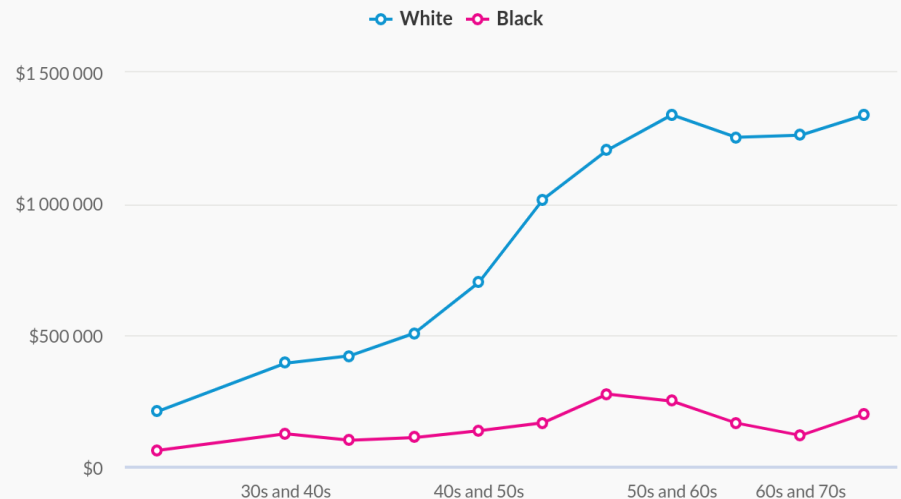


Source: U.S. Census Bureau, "2007–2012 American Community Survey 1-Year Estimates," Table B17001 and B17001C.

Current Wealth Disparities

- In their 30s, whites have an avg. \$147,000 more in wealth than Blacks (3x)
- By 60s whites have \$1.1 million more than Blacks (7x)
- Between 1963-2016, families
 - in 10th percentile went from **no wealth to \$1,000 debt**
 - in **middle more than doubled** their wealth
 - in 90th percentile wealth increased **5x**
 - in 99th percentile wealth increased **7x**

Average Family Wealth for Those Born 1943–51 by Race



SHOW MEDIAN

DATA

SAVE CHART

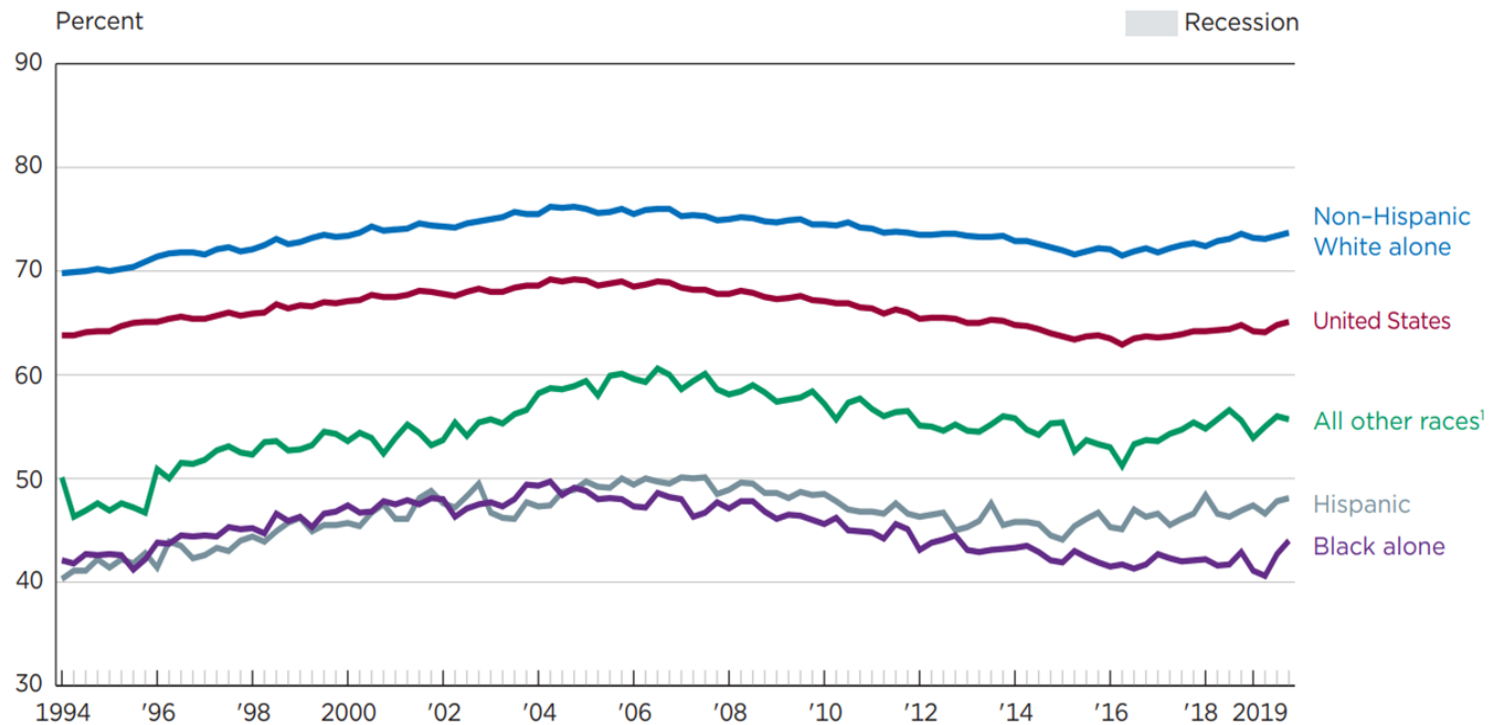
Source: Urban Institute calculations from Survey of Consumer Finances 1983–2016.

Notes: 2016 dollars. Hispanic sample size too small to show. Age is defined as the age of the household head. In 2016, these people were ages 65–73; in 1983, they were ages 32–40.

Housing

Figure 8.

Quarterly Homeownership Rates by Race and Ethnicity of Householder for the United States: 1994–2019



¹Includes Asian, Native Hawaiian and Other Pacific Islander, American Indian and Alaska Native, and Two or More Races.

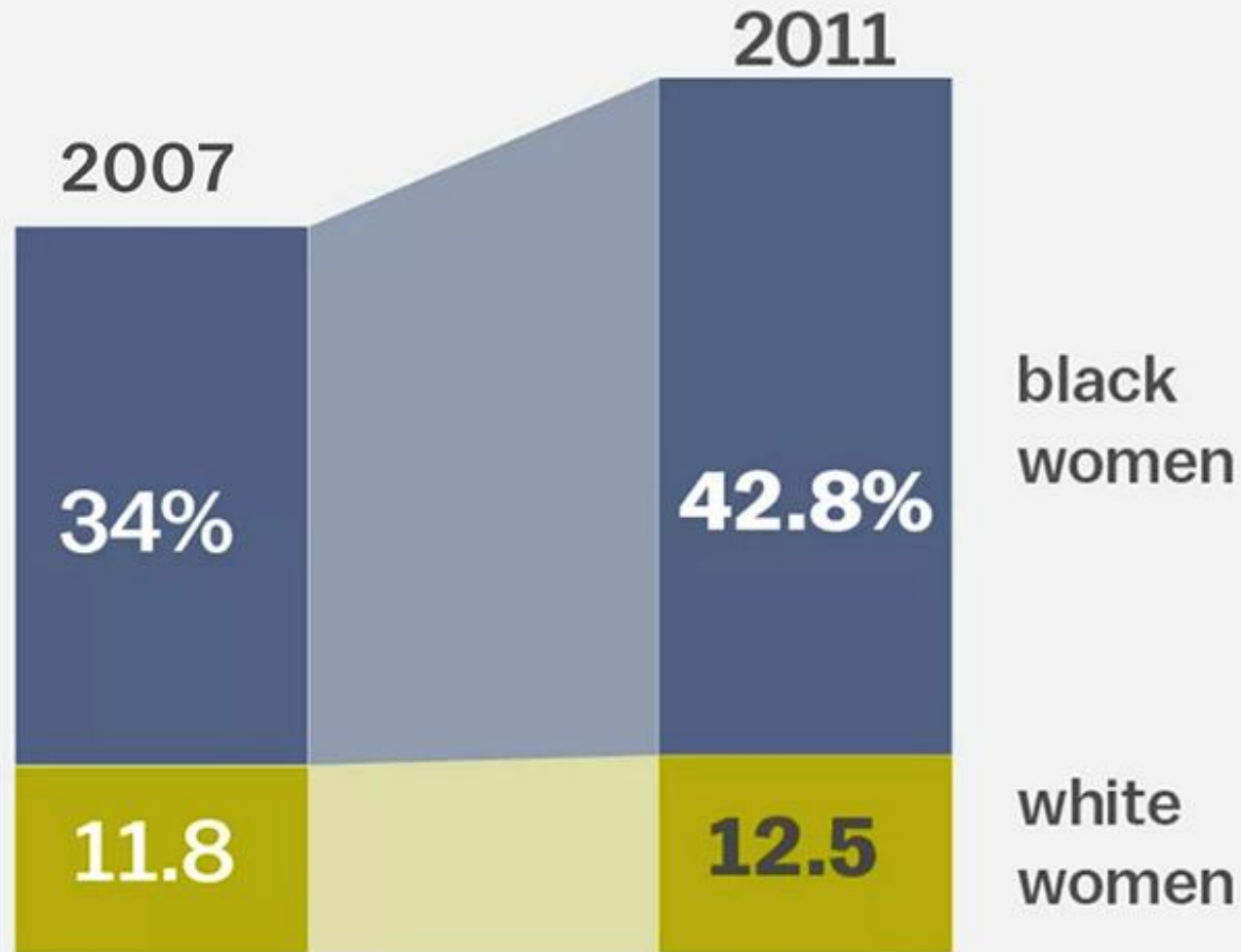
Source: U.S. Census Bureau, Current Population Survey/Housing Vacancy Survey, March 10, 2020; recession data from the National Bureau of Economic Research, <www.nber.org>.

<https://www.census.gov/housing/hvs/data/charts/fig08.pdf>

<https://apps.urban.org/features/wealth-inequality-charts/>

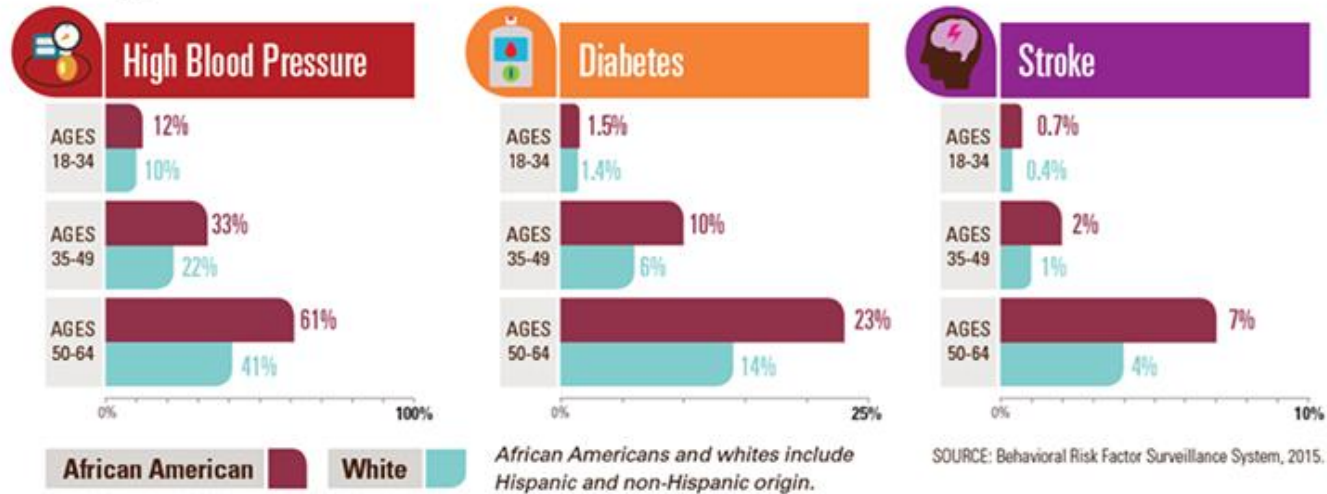
America's black-white maternal mortality gap is widening

Percentage of pregnancy-related deaths by race

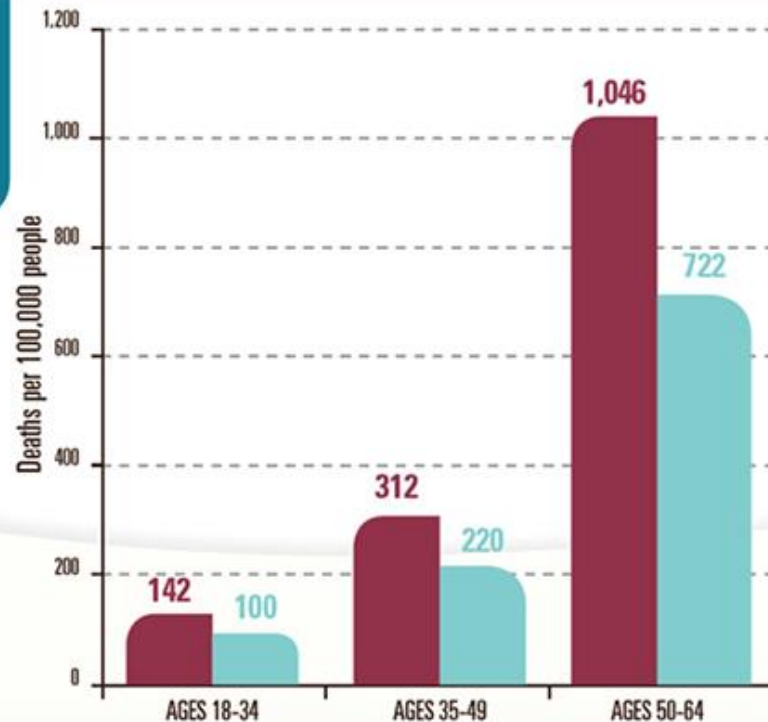


SOURCE: CDC Pregnancy Mortality Surveillance System
CREDIT: Sarah Frostenson

Young African Americans are living with diseases more common at older ages.



African Americans are more likely to die at early ages from all causes.



SOURCE: US Vital Statistics, 2015.

American Medical Association



Organizational Strategic Plan to Embed Racial Justice and Advance Health Equity



2021-2023

New Organizational Policies

- “[Racism as a Public Health Threat](#),” which acknowledges that racism is a primary driver of racial health inequity and recognizes racism as a serious threat to advancing health equity—defined as “optimum health for all.”
- “[Elimination of Race as a Proxy for Ancestry, Genetics, and Biology in Medical Education, Research and Clinical Practice](#),” which recognizes that race is a social construct and distinct from ethnicity, genetic ancestry or biology, and supports ending the practice of using race as a proxy for biology or genetics in medical education, research and clinical practice.
- “[Racial Essentialism in Medicine](#),” which encourages characterizing race as a social construct, rather than an inherent biological trait, and recognizes that—when race is described as a risk factor—it is more likely to be a proxy for influences such as structural racism than a proxy for genetics.

Equity-centered solutions include, and are not limited to:

- Ending segregated health care that is reinforced by payer exclusion
- Establishing national health care equity and racial justice standards, benchmarks, incentives and metrics
- Ending the use of race-based clinical decision models (including calculators)
- Ensuring that augmented intelligence (AI) is free from harmful, biased algorithms
- Eliminating all forms of discrimination, exclusion and oppression in medical and physician education, training, hiring, matriculation and promotion supported by:
 - Mandatory anti-racism, structural competency, and equity-explicit training and competencies for all trainees and staff
 - Publicly reported equity assessments for medical schools and hospitals
- Preventing exclusion of and ensuring just representation of Black, Indigenous and Latinx people in medical school admissions as well as medical school and hospital leadership ranks
- Ensuring equity in innovation, including design, development, implementation and dissemination along with supporting equitable innovation opportunities and entrepreneurship
- Solidifying connections and coordination between health care and public health
- Acknowledging and repairing past harms committed by institutions

(American Medical Association Equity Strategic Plan, 2020, p. 6)

Common Areas for Growth Among Leaders

- Increase racial literacy
- Create shared language, values & vision
- Prepare to listen, validate & receive the voices and experiences of BIPOC
- Center BIPOC leadership in the formation of solutions



Six-S
Framework™ for
Cultivating
Critically
Conscious
Connections

Break

5 MINUTE



Presentation 2

Breaking the Cycle of Addiction



Aimee Moulin, MD

*Director, CA Bridge
UC Davis Health*



Hannah Snyder, MD

*Director, CA Bridge
Assistant Professor, Dept. of Family & Community
Medicine, UCSF at Zuckerberg San Francisco General*

Aimee Moulin, MD



Aimee is a Professor at UC Davis and the Behavioral Health Director for the Emergency Department at UC Davis. She has a dual appointment in the Department of Emergency Medicine and Psychiatry. Aimee has a Masters in Applied Science and completed a fellowship in Quality Safety and Comparative Effectiveness research through the Agency for Healthcare Research and Quality with a focus on acute care for patients with behavioral health disorders. Dr. Moulin completed and established a Health Policy fellowship at UC Davis. She is Past President of the California Chapter of the American College of Emergency Physicians. Aimee completed residency in Emergency Medicine at the Los Angeles County LAC + USC Medical Center.

Pronouns: she/her

Hannah Snyder, MD



Hannah practices primary care and addiction medicine at Zuckerberg San Francisco General Hospital. She is a Clinical Assistant Professor in the Department of Family and Community Medicine at the University of California, San Francisco. Her clinical work includes addiction consultation in clinic and in the hospital, primary care, and hospital medicine. Hannah completed Medical School at the University of Chicago, residency in Family and Community Medicine at the University of California, San Francisco (UCSF), and a fellowship in Primary Care Addiction Medicine at UCSF.

Pronouns: she/her

Breaking the Cycle of Addiction

Aimee Moulin, MD
Hannah Snyder, MD



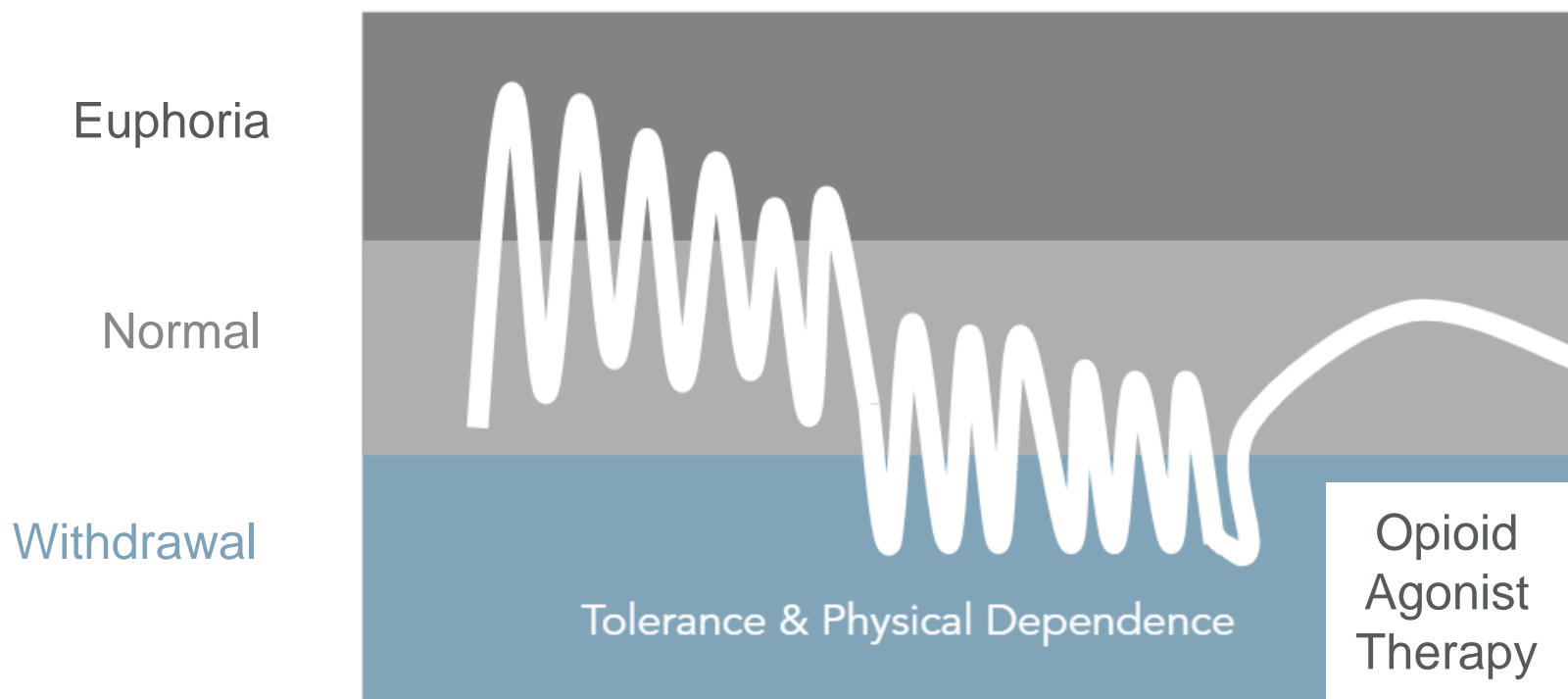


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How it Works

No longer chasing the high...



CA Bridge Impact: First Program Year

Cumulative totals across all reporting CA Bridge sites (n = 56), April 2019-Sept 2020



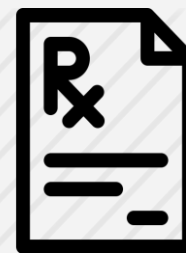
37,230

SUN encounters



15,051

patients identified with OUD



7,059

patients given a prescription
for MAT

SUN: Substance Use Navigator

OUD: Opioid Use Disorder

MAT: Medication for Addiction Treatment

CA Bridge Impact: To-Date

Cumulative totals across all reporting CA Bridge sites (n = 86), April 2019-March 2021



48,007

SUN encounters



24,191

patients identified with OUD



10,471

encounters where MAT was prescribed or administered

SUN: Substance Use Navigator

OUD: Opioid Use Disorder

MAT: Medication for Addiction Treatment

CA Bridge Model

Revolutionizing The System Of Care



Rapid, Evidence-based Treatment

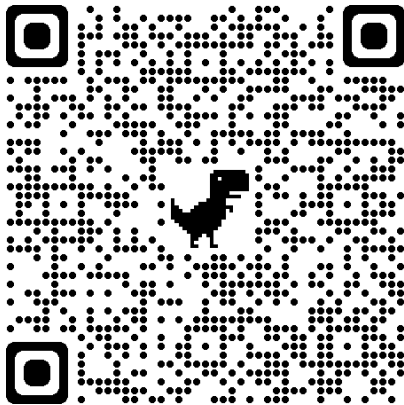


Connection to Ongoing Care



Culture of Respect

Racial Inequities in Treatment



TOOL

Advancing Equity and Reducing Harm to Communities of Color from Drug Use



CA Bridge acknowledges that substance use is a common part of the human experience. For some, substance use has negative consequences. Unfortunately, in the U.S., the consequences from drug use are not experienced equally and people of color, particularly Black people, face worse consequences than White people.

While CA Bridge strives to reduce the harms from drug use for *all* people, we believe that to achieve equity, we must focus special efforts on reducing harms related to substance use in communities of color that are disproportionately impacted. We strive to expose and disrupt racist social attitudes, drug laws and policies, and treatment approaches on a personal and systemic level. We invite you to join us in this work.

UNDERSTANDING THE ISSUES

For people of color, drug use is much more likely to lead to incarceration

US government data consistently show that people of all races use substances at equal rates,¹ but Black and Latinx people are much more likely than Whites to be arrested and incarcerated.^{2,3} The statistical evidence is staggering:

- In 2009, two-thirds of persons incarcerated for a drug offense in state prison were Black or Latinx despite representing less than one-third of the population and using drugs at a similar rate as Whites.⁴
- In 2008, Black and White people used marijuana at similar rates, but a Black person was over 3 times more likely to be arrested for marijuana possession than a White person.⁵
- 50% of federal drug cases are brought against people classified as Hispanic, even though this group makes up just 17% of the US population.⁶

These disparities stem, in part, from racist policies put forth in 1971 during the War on Drugs that disproportionately targeted communities of color. In the late 1980s, federal laws were passed that created the same penalties for 1 gram of crack cocaine as for 100 grams of powder cocaine. Since crack was more common in Black communities and cocaine more common in White communities, Black people who used drugs received much harsher sentences than White people did.

The magnitude of harm is enormous

These differences in response to drug use affect a *very large number of people* because over the last 40 years, the U.S. incarceration rate tripled to the *highest of any country in the world*.⁷ The number of Americans incarcerated for drug offenses skyrocketed from 40,900 in 1980 to 443,200 in 2018, and on any given day, one in 12 Black men in their 30s is in prison or jail.⁸ Incarceration is a very significant source of harm from drug use, as it has negative consequences that affect a person's family relationships, mental health, employment, and eligibility for public housing and other benefits.

CA Bridge Model: Treatment

- Evidence-based substance use disorder treatment (medication for addiction treatment, MAT) is accessible in the ED *and in all other hospital departments.*
- Treatment is provided rapidly (same day) & efficiently in response to patient needs.



CA Bridge Model: Connection

- Linkage to ongoing care involves active support and follow up with patients.
- Outreach to people who use drugs to increase access to care, equity, & harm reduction.



CA Bridge Model: Culture

- Hospital culture is welcoming and does not stigmatize substance use.
- Human relationships that build trust are integral to how substance use disorder treatment is provided.





Addiction is NOT a moral failing.

**It is a chronic disease that
requires medical treatment.**



The Opioid Epidemic



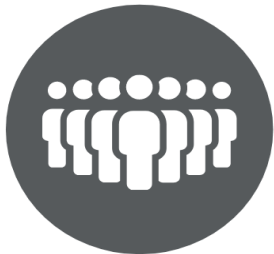
70,630

people died from drug overdose in 2019 (1)



10.1 million

People misused prescription opioids in the past year



1.6 million

People had an opioid use disorder in the past year (2)



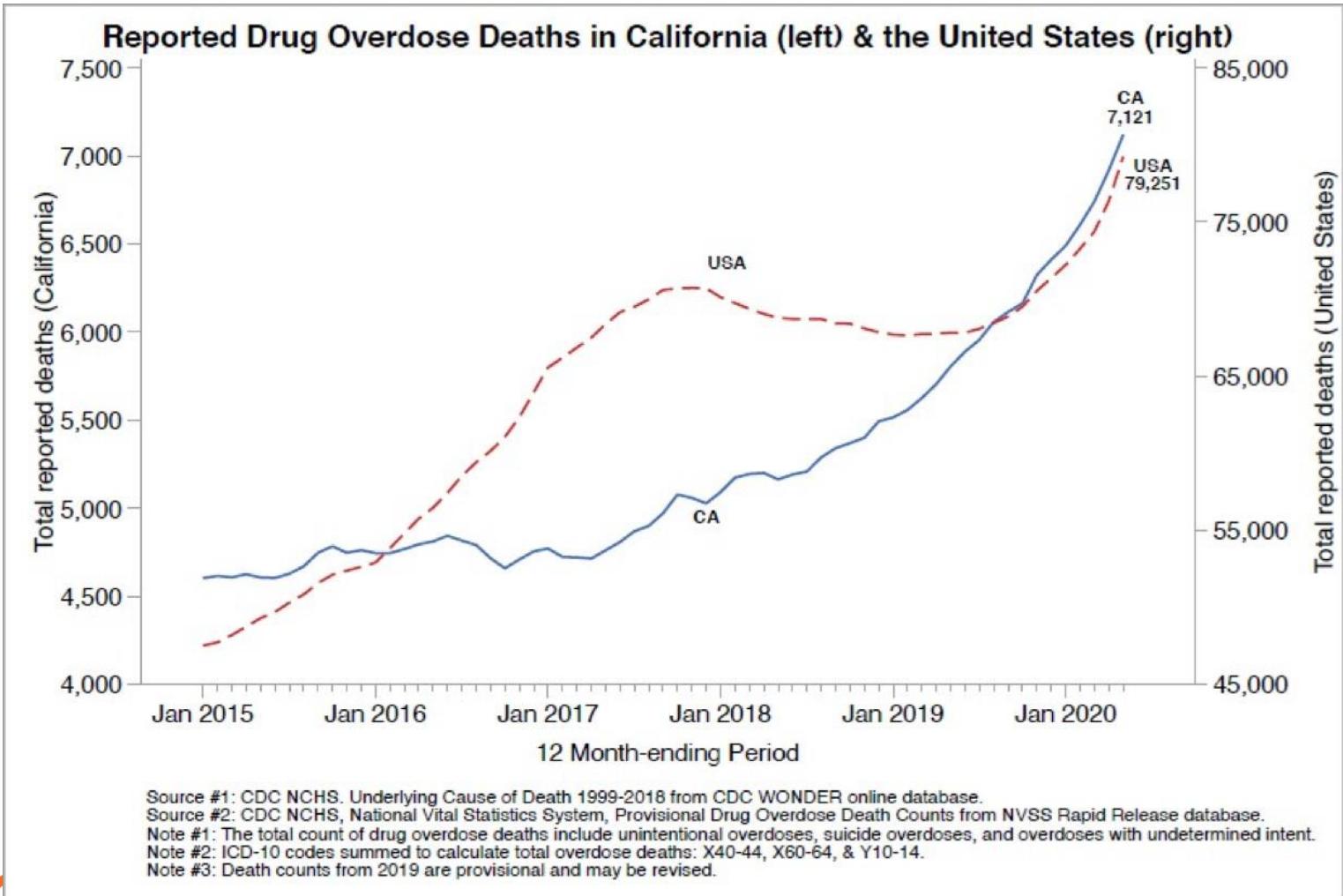
745,000

People used heroin in the past year

Sources

(1) NCHS Data Brief No. 394, December 2020.

(2) 2019 National Survey on Drug Use and Health, 2020 <https://www.hhs.gov/opioids/about-the-epidemic/index.html>



The current system is designed to fail

Long waits

Complex assessments before meds

Referral to specialty care

Insurance authorization

Rigid Treatment “contracts”


Loads of stigma and moral judgement



What we are going to talk about today

- CA Bridge Model
- Building a Hospital Program
- Building your Public Health Infrastructure
- Building for Sustainability and beyond

Putting the model into use...

- How do we change practice?
 - How do we establish rapid treatment of OUD?
 - How can we meet a higher standard of care for SUD in our hospitals?
- 

Recognize that OUD is an EMERGENCY AND, this is our JOB

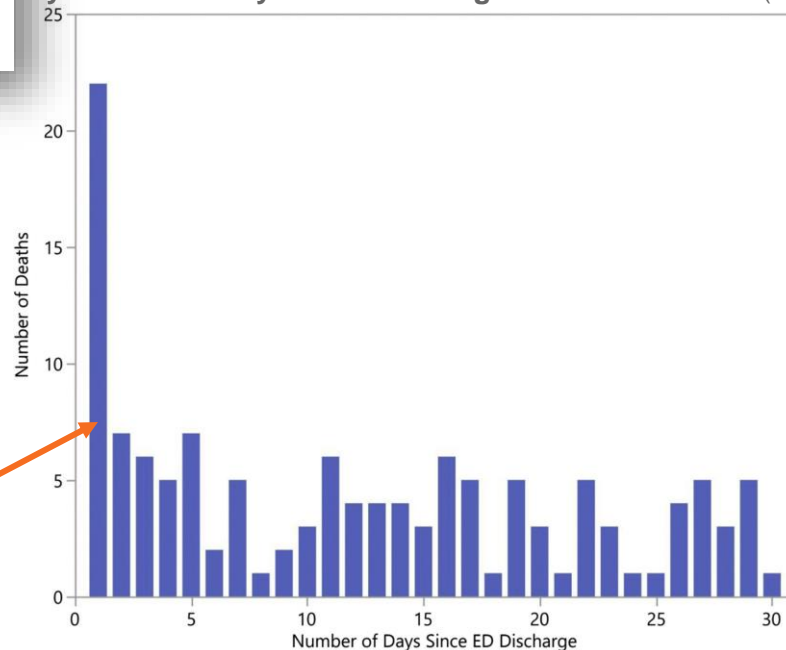
One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose

Scott G. Weiner, MD, MPH^a, Olesya Baker, PhD^a, Dana Bernson, MPH^b, Jeremiah D. Schuur, MD, MHS^c

Study of patients treated in Massachusetts EDs for opioid overdose 2011-2015

- Illustrates the short-term increase in mortality risk post-ED discharge
- Of patients that died, 20% died in the first month
- Of those that died in the first month, 22% died within the first 2 days

Number of deaths after ED treatment for nonfatal overdose by number of days after discharge in the first month (n=130)



Source: Weiner, Scott, et al.. *One-Year Mortality of Patients After Emergency Department Treatment for Nonfatal Opioid Overdose*. *Annals of Emergency Medicine*. April 2, 2019.

Make it easy... smiles, signs, & badges



Make I.T. easy: Website Resources, Dot Phrases

Resources are listed
in alphabetical order.

HOME > TOOLS > RESOURCES

Our resources have been developed by an interdisciplinary team based on published evidence and expert opinion.

However, they should never be used as a substitute for clinical judgement. Providers are responsible for assessing the unique circumstances and needs of each case. Adherence to these guidelines will not ensure successful treatment in every situation.

A Patient-Centered, Rapid Access Approach to Substance Use Disorder

GUIDE: Prioritize timely medication access, improve care effectiveness, and expand on a 'low-threshold' model



Acute Care Treatment of Alcohol Use Disorder

GUIDE: Guidance incorporating treatment for alcohol use disorder into emergency department and inpatient settings



Acute Pain Management in Emergency Department and Critical Care

PROTOCOL: Clinical acute pain management guide for EDs patients undergoing buprenorphine treatment for opioid use disorder



Acute Pain Management

Alcohol Use Disorders

Blueprint for Hospital

2 filter features

Get the full Clinical Toolkit

This toolkit is updated periodically. The most recent folder was modified January 2020.



FILTER BY AUDIENCE

View All



FILTER BY CATEGORY

View All



SE



How to Use New Website: On Shift Page

Quick access to
resources you may need
on shift



Bridging the Hospital: Find Friends Beyond the ED

Build a network outside the ED...find new stakeholders/champions/advocates

- Internal medicine: they always appreciate help! MAT streamlines care models
- ICU-- they love the pharmacology of MAT and understand the tragedy of OD
- Anesthesia and surgery-- they are looking for alternatives to opioids for pain
- Pharmacy: they can be your best allies (and likely your toughest critics early on)

Bridging the Hospital: Find Friends Beyond the ED

- Ob-GYN: pregnant women w/SUD are ready to change their lives for the better
- Sim Lab: you can help develop teaching cases with OUD/ SUD presentations
- Social Work/ Case Management: They are being asked to do much of this work already... without formal training or skills... that an x-waivered MD can level up!!
- Your hospital media team-- they will want to document your wins and victories
- And perhaps most importantly... C-SUITE, C-SUITE-C-SUITE!!

Building Outpatient Partnerships

Bringing in primary care

Connect with justice system/ drug courts

Work with community/ harm reduction groups/
media partners

Faith based organizations, schools, tribal
associations

Remember the power of “YES-- AND...” to find
common goals



Success: Connecting the Unconnected

Review of 294 patients at UC Davis

75% Medicaid Coverage

45% Experiencing homelessness

34% Comorbid psychiatric diagnosis

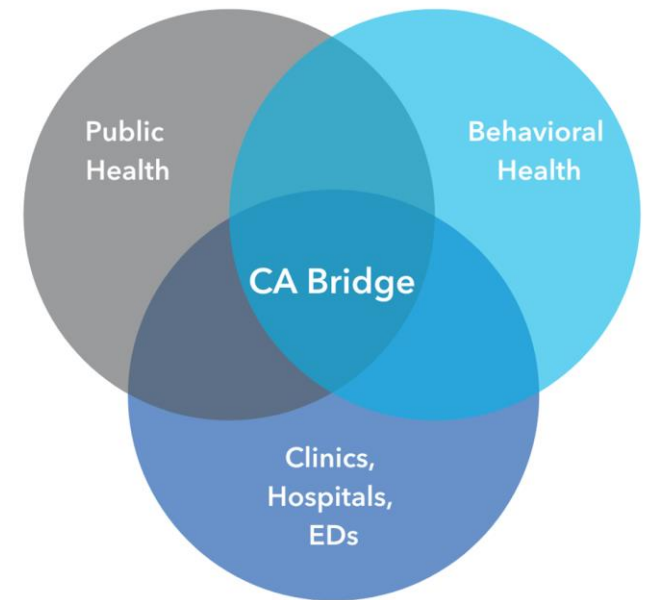
*Homelessness was associated with connection to treatment OR 2.34 p 0.01



Success: Connecting with Public Health

Public health's mission = GO UPSTREAM!

- Public health departments are continuously looking for opportunities to invest in harm reduction programs, from perinatal health to HIV and STIs.
- Many are now actively trying to expand MAT services and build stronger connections between acute care, primary care and mental health with navigators...



Which is exactly what BRIDGE is doing!!

Make it easy to do the right thing

- Get “Dot phrases” (templates) for all MAT steps inside the EMR
- Agile Pathways for EPIC EMRs that support it
- Posters/ signs with contact info and Bridge pathway in work areas
- COWS score calculator in the EMR

Billing for Sustainability...NEW GOODIES

ED MAT HCPCS code G2213: Initiation of medication for the treatment of opioid use disorder in the emergency department setting, including assessment, referral to ongoing care, and arranging access to supportive services.

SBIRT code G0396: Alcohol and/or substance abuse structured screening and brief intervention services; 15 to 30 minutes

Code G0397: Alcohol and/or substance abuse structured screening and brief intervention services; greater than 30 minutes

**Does this seem feasible?
Where are your barriers?**

Question:
What does success look like?

Answer:
An ED that says, from A to Z:

**ADDICTION
IS NOT A
MORAL
FAILING.**

It is a chronic disease that requires medical treatment.

Question:
What does success look like?

Answer:
A hospital that understands...

**All people deserve
rapid access to
evidence-based
treatment with **dignity.****

Question:

What does success look like?

Answer:

Making a blueprint into a reality.

Outcome



SEPTEMBER 2020

Blueprint for Hospital Opioid Use Disorder Treatment

*A patient-centered approach to 24/7 access
to medication for addiction treatment*

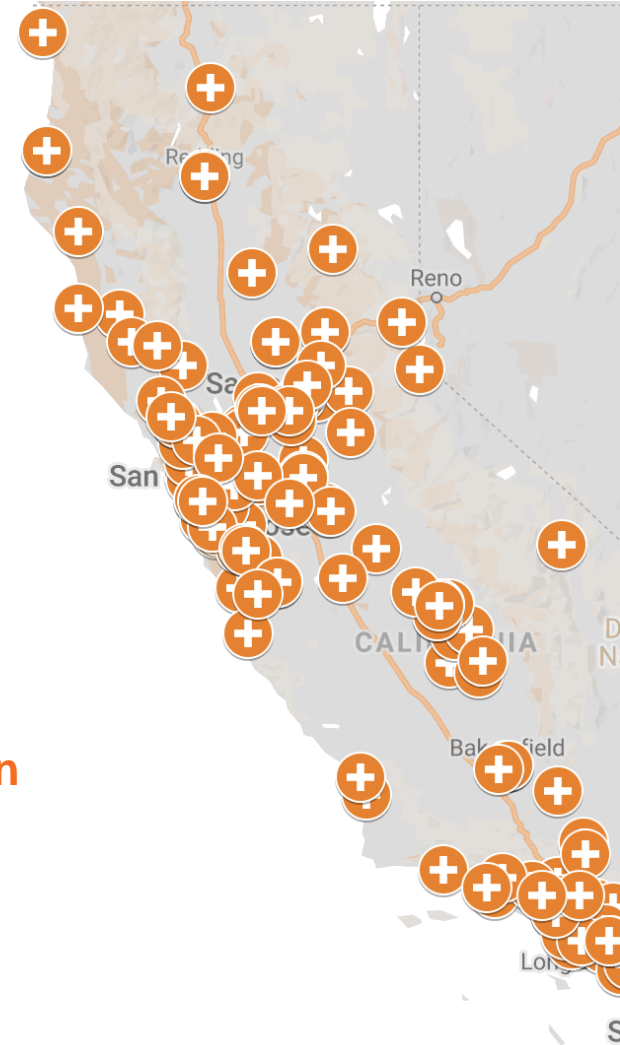
Question:
What does success look like?

Answer:
A network of rock star treatment sites that keeps learning... and growing...



Impact: From March 2019 - July 2020 over 50 hospitals treated patients with substance use disorders


Update: 208 hospitals implement the CA Bridge model in 2020



Question:
What does success look like?

Answer:

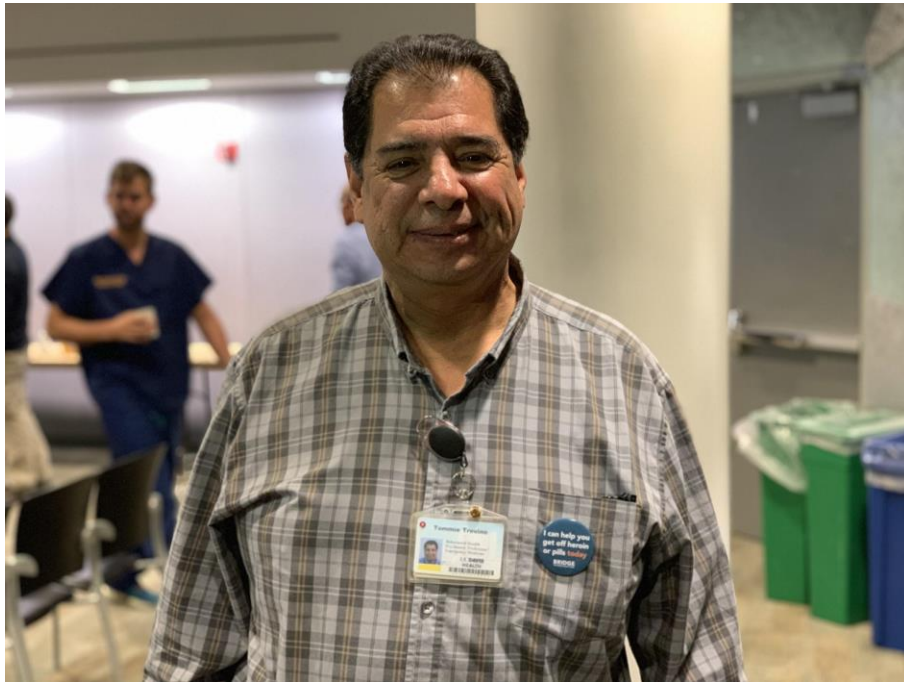
kind + effective (+cheaper + easier) evidence-based approaches to people with SUD...ANYWHERE AND EVERYWHERE!



**Substance use
is the only medical
condition that is also
a CRIME.**

Question:
What does success look like?

Answer:
Another happy, whole, human being.



Friday, October 25, 2019



This stuff is like magic! Thanks again for the help. I think it's really gonna help me get thru the pain of addiction! Please give a big thank you to everyone who helped me today...only time will tell now but I have a great feeling! Thanks to you and everyone at the bridge program!

9:57 PM

Saturday, October 26, 2019

You're welcome. Thank you for coming in.

6:38 AM

Questions?

Join us.

cabridge.org

Visit our website for tools and resources

cabridge.org/join-us

Join our email list for new announcements



[@BridgeToTx](https://twitter.com/BridgeToTx)



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Presentation 3

Shattering the Wall of Silence – When Words and Actions Matter Most: The Case for CANDOR and BETA HEART



Timothy B. McDonald, MD, JD

*Chief Patient Safety & Risk Officer, RLDatix
Professor, Loyola University Chicago Beazley Institute
for Health Law and Policy*



Deanna Tarnow, RN, BA, CPHRM

*Senior Director, Risk Management and Patient
Safety BETA Healthcare Group*

Timothy B. McDonald, MD, JD



Timothy McDonald, MD JD, is the Chief Safety and Risk Officer for RLDatix and is the past President of the Center for Open and Honest Communication at the MedStar Institute for Quality and Safety and Transparent Health Consulting, Inc. Tim is a physician-attorney who was involved in patient care activities for 30 years and quality and patient safety efforts for the past 20 years. He served as the Chief Safety and Risk Officer for Health Affairs and the Program Director for the Pediatric Anesthesiology Residency Program at the University of Illinois until 2013.

His federally funded research has focused on the principled approach to quality, medical liability and patient harm with an emphasis on open and honest communication to harmed patients, their loved ones and traumatized clinicians. He has published numerous articles on all of these domains and their impact on improving the quality of care while mitigating medical liability and other legal-related issues.

He is the recipient of many national and international awards in anesthesiology and patient safety, including the American College of Medical Quality's Founder's Award, the Institute of Medicine – Chicago's Patient Safety Award, and the Hope Award from the Medically Induced Trauma Support Service [MITSS] in Boston.

Deanna Tarnow, RN, BA, CPHRM



Deanna Tarnow is a Registered Nurse and certified professional in healthcare Risk Management. She has been with BETA Healthcare Group, a Professional Liability organization that insures over 500 healthcare facilities in California for ten years. In her role as Senior Director, Risk Management and Patient Safety she leads the comprehensive, principled, and systematic approach to responding to and reducing harm in healthcare known as BETA HEART®. Ms. Tarnow joined BETA in 2010, having worked in the healthcare field for over 25 years, with the last 19 years being dedicated to Risk Management.

In her previous roles as a hospital based risk manager and Director of Risk Management and Patient Safety, Ms. Tarnow was responsible for risk identification, loss prevention, sentinel event management, and development and implementation of reliable systems to promote patient safety throughout an integrated healthcare system. Ms. Tarnow is a past president and current member of the California Association of Healthcare Risk Management (CSHRM). She is a member of the American Society for Healthcare Risk Management and California Society for Healthcare Risk Management. She completed the Institute of Healthcare Improvement (IHI) Patient Safety Officer training in 2006 and the American Hospital Association Patient Safety Fellowship in 2013.

A person wearing blue medical scrubs is holding a brown teddy bear. A stethoscope is visible around their neck. The background is a soft, out-of-focus light color.

When Words and Actions Matter Most Responding to Harm in Healthcare: The Case for CANDOR

Partnership HealthPlan of California
2021 Northern California Hospital Quality Symposium

Timothy B. McDonald
Chief Patient Safety & Risk Officer
RLDatix

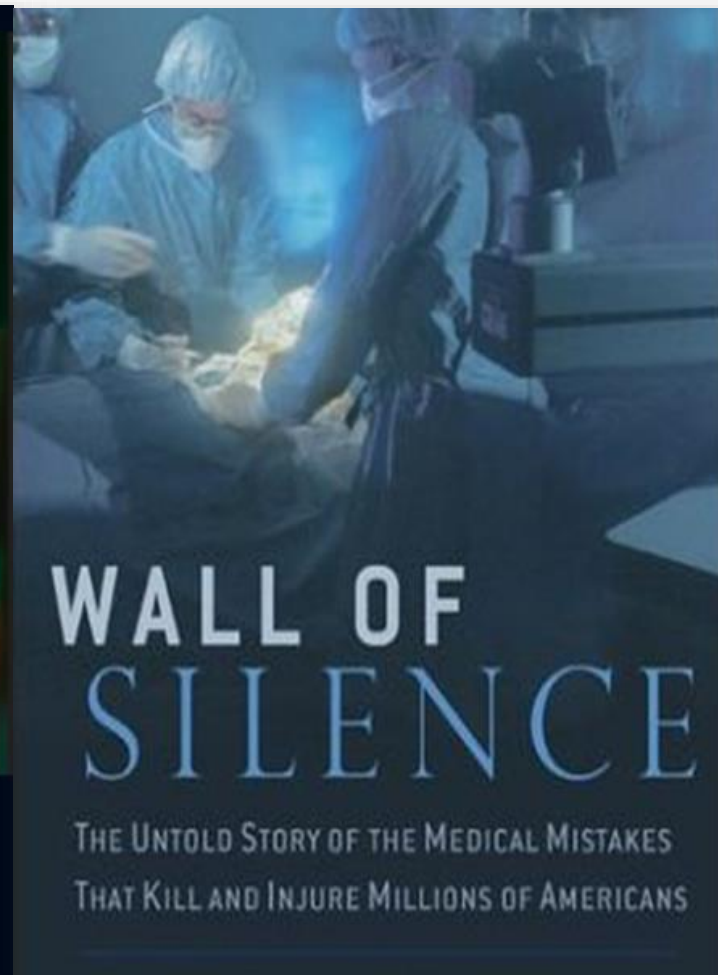
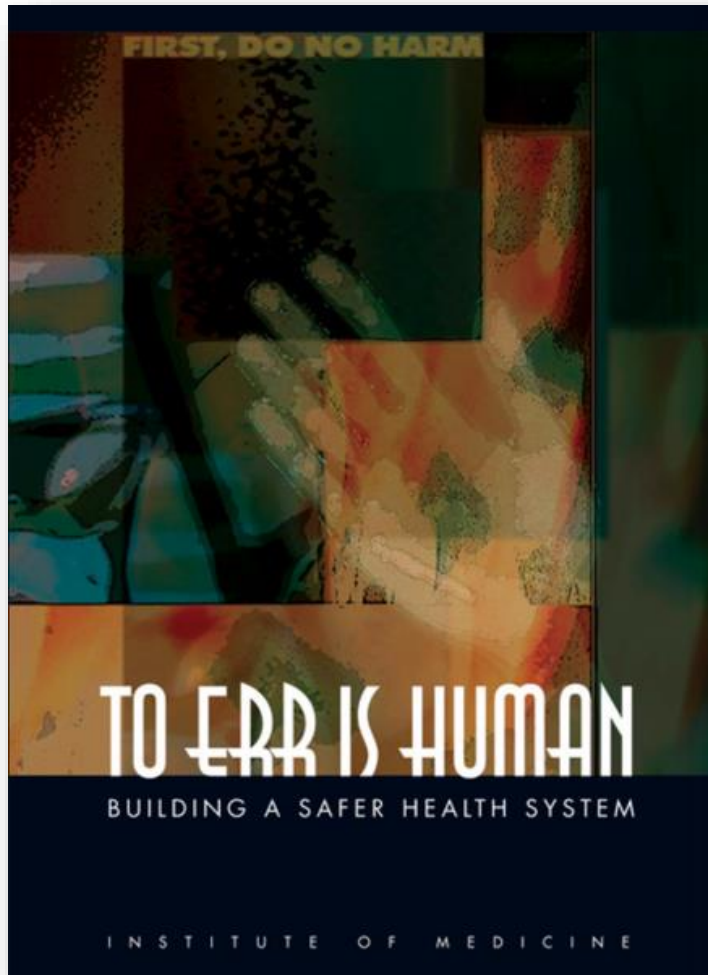
Deanna Tarnow
Senior Director, Risk Management and Patient Safety
BETA Healthcare Group

CONNECTING
THE HEART
WITH THE
HEAD



ORIGIN OF CANDOR

A comprehensive, principled, and systematic approach to harm



The Unkind Acts Cascade

*Collateral Damage of The Wall of Silence
The Empathy Crisis*



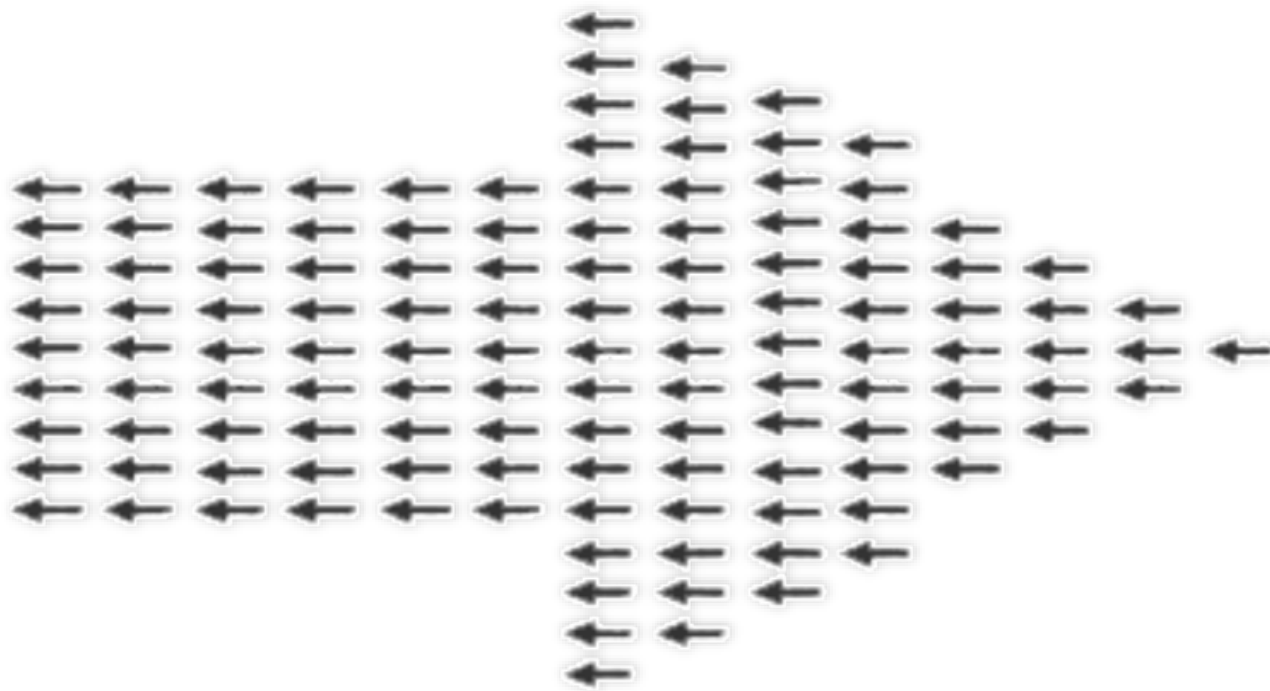
3 YEARS 7 MONTHS 28 DAYS & A CLINICIAN ALMOST QUILTS

A Case To Illustrate The Wall of Silence and the collateral damage

- 39-year-old COO of sister hospitals presents for pre-operative testing
- CBC shows WBC of 1,000
- Not acted upon
- Undergoes surgery
- Post op CBC shows WBC <500
- Not acted upon
- Patient dies 6 weeks later with leukemia
- We “delay deny and defend” for 4 years
- 43 depositions – 12 resident physicians
- Settle for millions
- Learned little and suffer immensely



What are the Barriers to Open Communication?

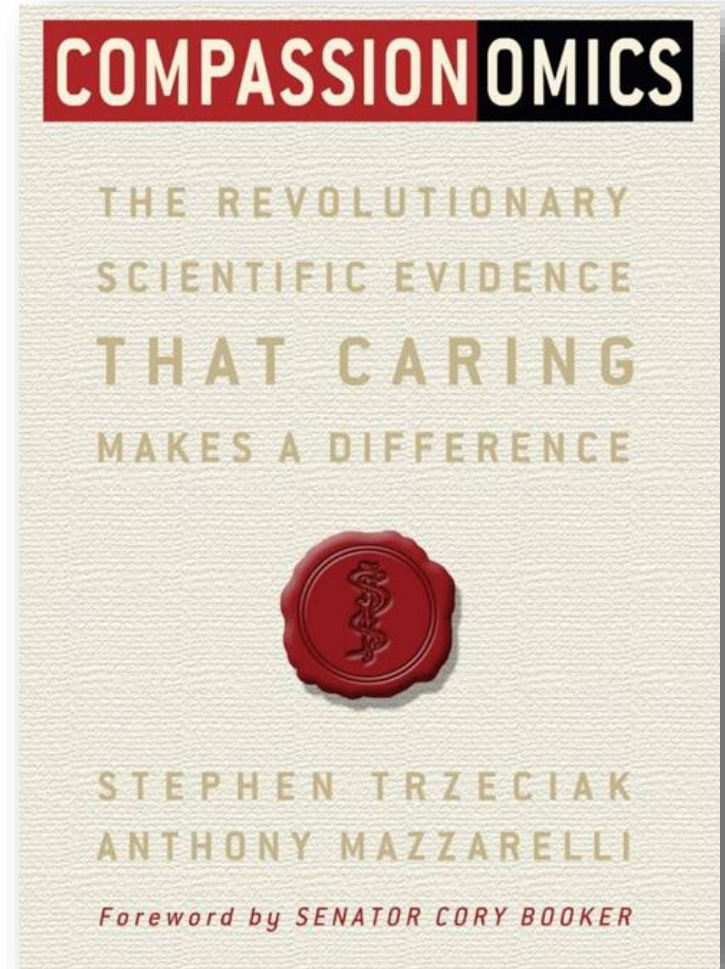


Culture eats strategy for breakfast

Empathy and Compassion Crisis

Facts

- Half believe the health system is NOT compassionate
- Just 0.5% show any empathy during office visit
- Empathy mitigates implicit bias
- Compassion promotes health
- Compassion lowers malpractice risk
- Lack of compassion poses a safety risk



Openness Saves Lives

GLOBAL HEALTH POLICY

By Veronica Toffolutti and David Stuckler

DOI: 10.1377/hlthaff.2018.05303
HEALTH AFFAIRS 38,
NO. 5 (2019): 844-850
©2019 Project HOPE—
The People-to-People Health
Foundation, Inc.

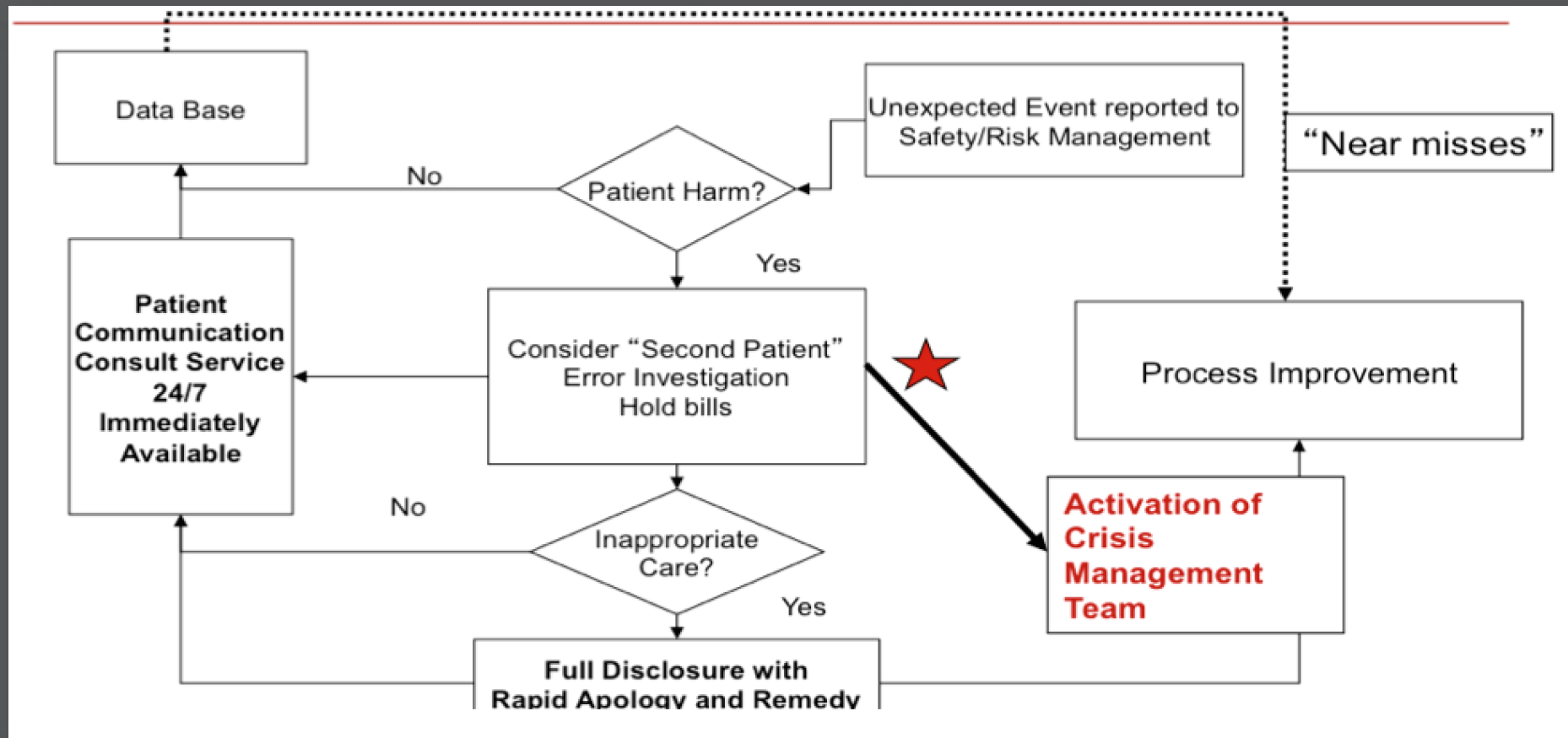
A Culture Of Openness Is Associated With Lower Mortality Rates Among 137 English National Health Service Acute Trusts

Breaking Down the Wall of Silence

The development of a comprehensive approach to the prevention and response to **patient harm**

- ✓ We will provide effective communication rapidly following all serious harm events
- ✓ We will apologize and fairly and rapidly resolve all cases of inappropriate care
- ✓ We will learn from our mistakes
- ✓ We will support residents, families and care givers throughout

After patient, family, and clinician input – the Seven Pillars/CANDOR Approach



The Paradigm Shift

Implementation & training focus is on the “paradigm shift”!

Reporting

- from delayed
- to immediate

Communication

- from delay, deny and defend
- To EMPATHIC immediate and ongoing

Event Review

- from shame, blame, and train
- to human factors process redesign

Care for the Caregiver

- from suffering in isolation
- to EMPATHIC immediate and ongoing

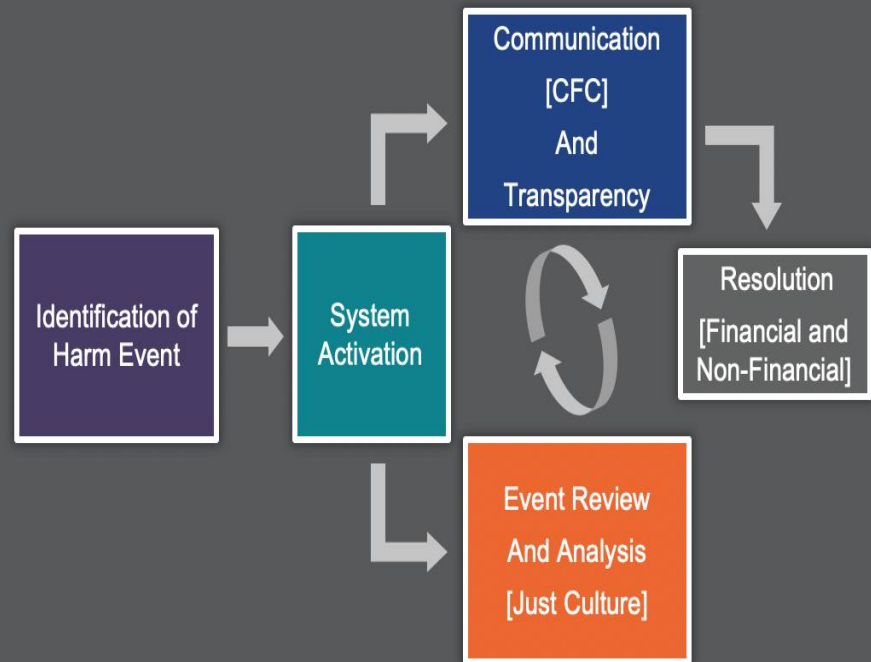
Resolution

- from having to “fight for it”
- to early offer

Patient Safety & Risk Mitigation

The Data

- Increase event reporting
- Initiate strong process improvements and redesign
- Reduce serious safety events
- Improve staff engagement, better retention, less turnover
- Decrease claims, lawsuits, legal expenses
- See a reduction in time of event to resolution



National and International Patient Safety Priorities

World Patient Safety Day – September 17, 2020



National Action Plan to Advance Patient Safety

17 Recommendations:

Culture, Leadership, Governance

- Promote a culture of trust and respect for patients, families and care partners
- CANDOR: Communication and Optimal Resolution with **Culture assessment, organizational buy-in, transparency, human factors/safety science learning, care of the caregiver**

Health Worker Safety Charter

Recognizing that health worker safety is the life and blood of response to COVID-19 pandemic

- Establish a just culture at health care facilities including legal/administrative protection from punitive action on reporting adverse safety events by health workers
- Provide mental wellbeing and stress management services to health workers for early detection and management of work-related psychosocial risks



BETA♥HEART®

Healing • Empathy • Accountability • Resolution • Trust

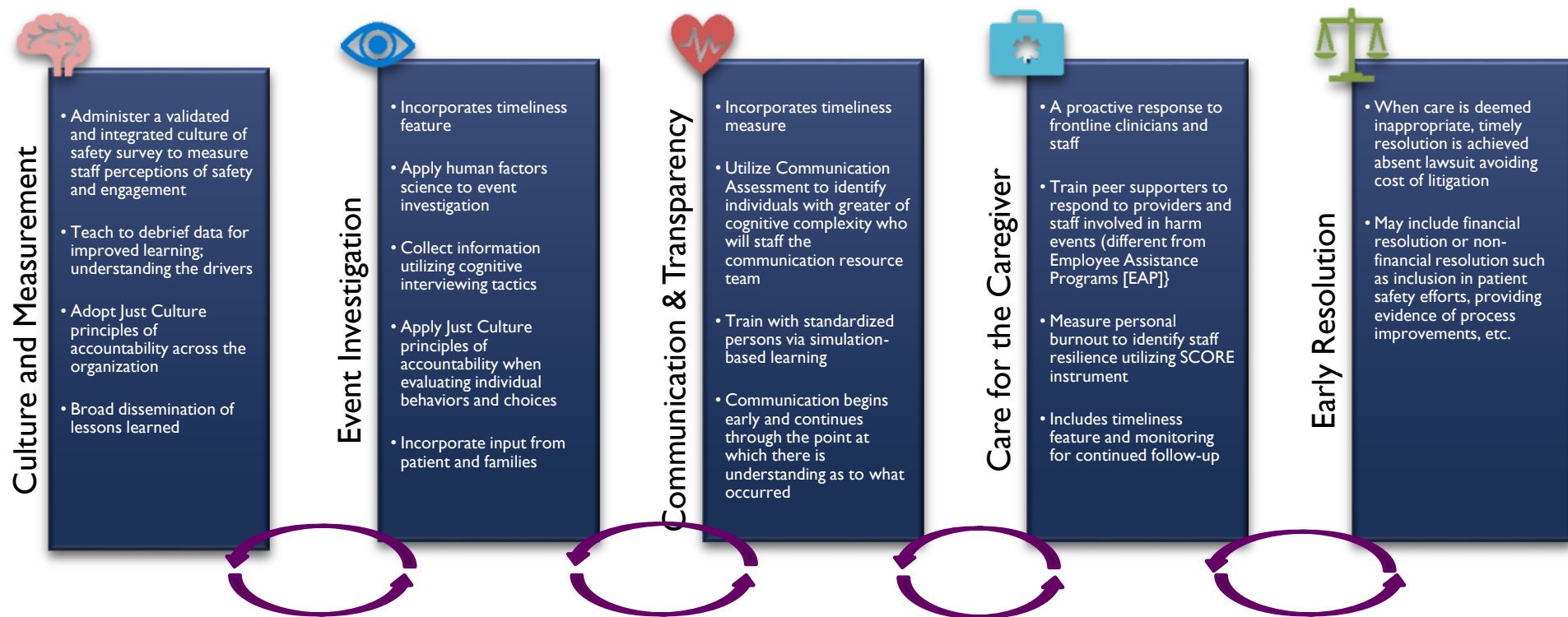
Purpose

Promote organization-wide culture change and instill trust that results in improved partnerships with patients, patients' families and caregivers

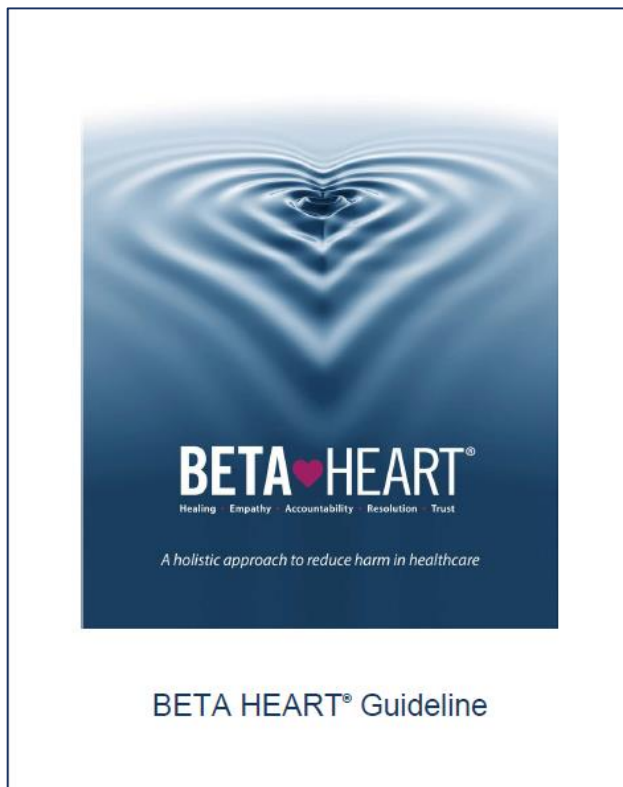
Goal

Introduce a holistic approach to reducing harm in healthcare

BETA HEART® is Introduced in Five Domains



BETA HEART Structure



- Organizations formally “opt-in” to BETA HEART
- Opt-in agreement sets forth commitment of HQI and BETA and attestation of organizational leaders to provide support and resources
- BETA HEART Guideline serves as the roadmap to success
 - Identifies key strategies
- After senior leader sign-off, organizations are taken through a Gap Analysis process

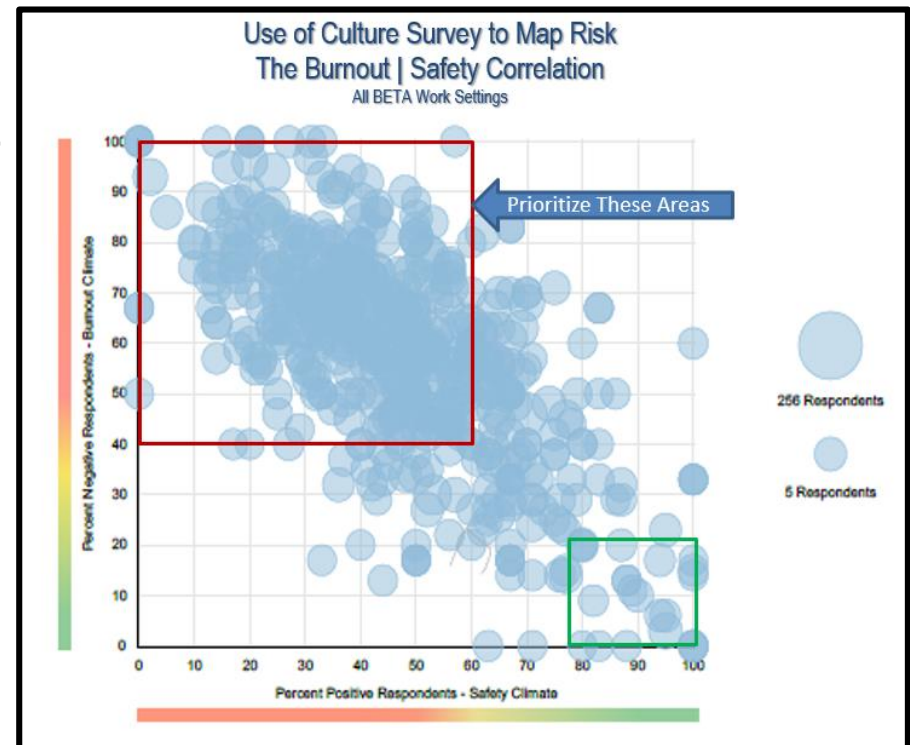
Gap Analysis

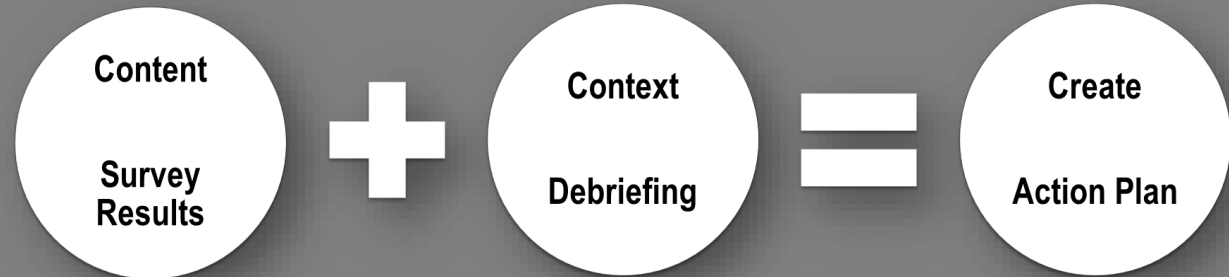
- The Gap Analysis process is a critical step and serves as a qualitative measure
- Provides a lens into organizational culture
- Helps BETA determine where we must “meet” the organization in their level of development and readiness



Culture Measurement Serves as One Outcome Metric

- Culture measurement serves as quantitative measure for all domains
- BETA endorses the SCOR-E instrument though others may be administered
- SCOR-E is an integrated instrument looks to both organizational culture and employee engagement for example:
 - There is a strong correlation between employee burnout and safety
 - Burnout can result in emotional exhaustion and impaired learning
- Utilize survey data to prioritize effort based on mapped risk



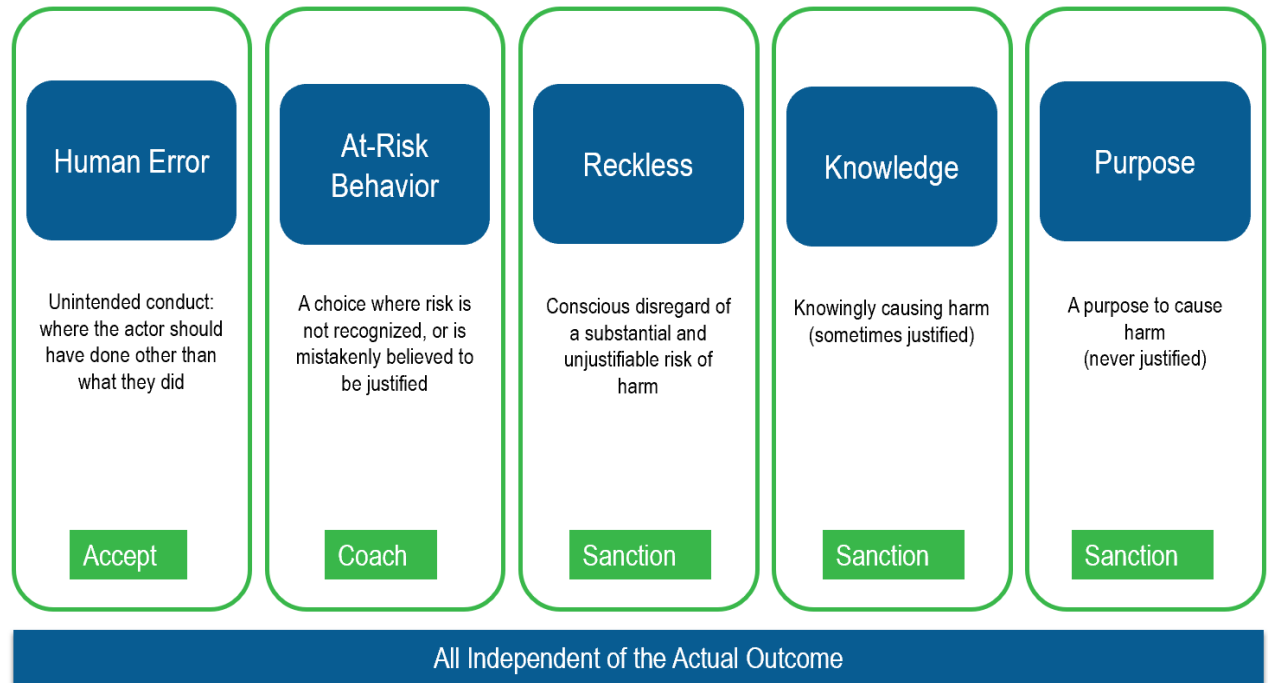


Debrief Is Critical To Understanding And Improving

Culture of Safety Domain | Requires Implementation of a Just Culture of Accountability

A consistent and fair approach to organizational and individual accountability

Focus on choices, behaviors and system design



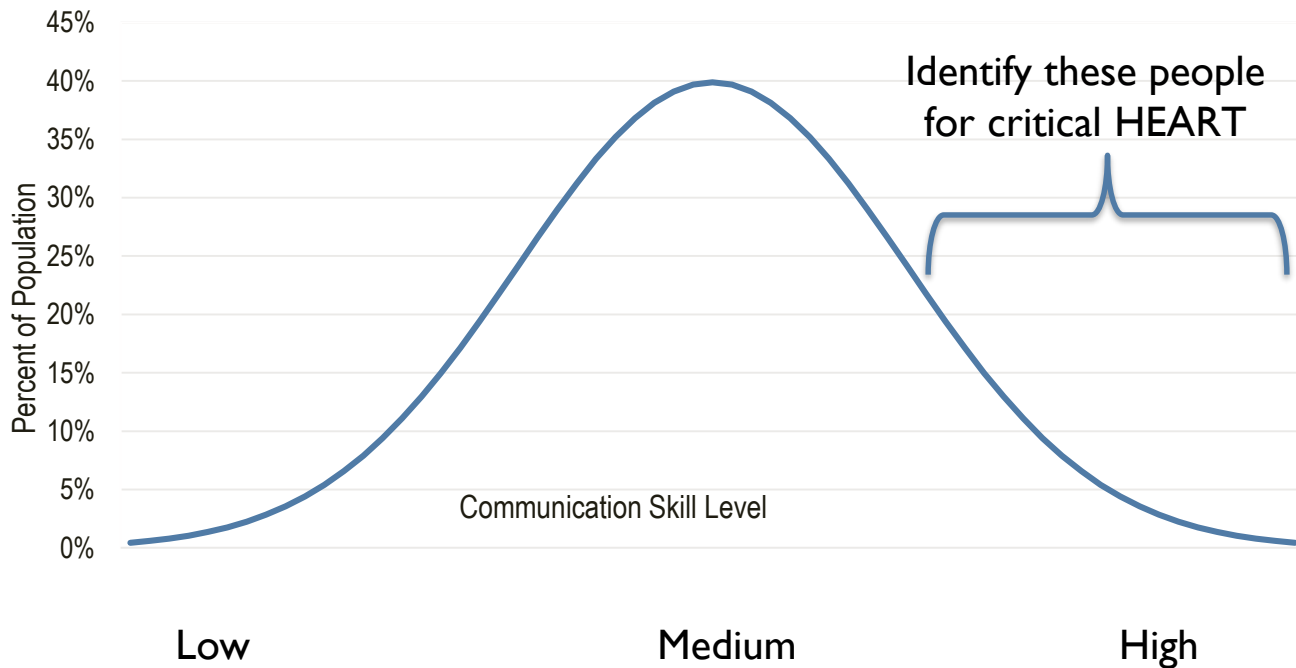
BETA HEART Promotes Early Event Investigation Using Alternative Techniques Cognitive Interviewing



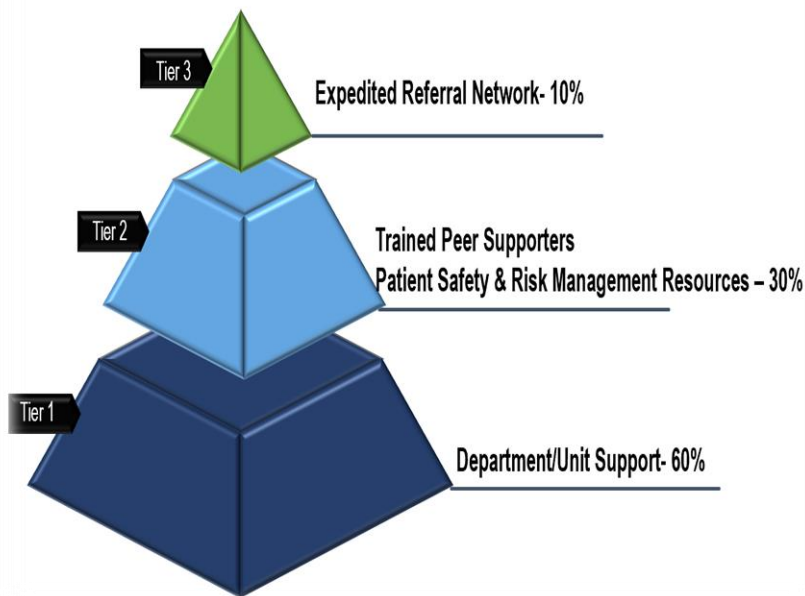
- Cognitive Interview techniques aid event review and analysis
- Borne out of NTSB and law enforcement accident investigation principles
- Promotes storytelling and reenactment of events
- A method used to prompt memory recall and recreate context of event:
 - How individual may have been feeling leading up to the event
 - What the individual may have been thinking about leading up to the event
- Interviewee is taken through reverse order recall and change of perspective recall

Communication Domain | Measurement and Practice

Measures Cognitive Complexity and Message Design



Care for the Caregiver Domain | Comprehensive Peer Support Program



- Conduct readiness assessment to assess foundation
 - Policy, systems (for notification) sufficient human resources, degree of “will” and organization’s structure
- Workshop provides opportunity for member’s team to gain knowledge and learn key elements and participate in simulation-based exercises
- Engage those interested in serving in Peer Supporter role and administer communication assessment
- Create implementation plan utilizing tools and resources provided in BETA HEART toolkit
 - Carry out staff training to further disseminate model across organization

Learning and Implementation Begins Through Systematic Workshops Led by International Expert Faculty



Workshop One

Culture of Safety
Rapid Event
Response and
Analysis



Workshop Two

Communication and
Transparency
Care for Caregiver



Workshop Three

Early Resolution

Focused Learning Is Brought Directly To Organization BETA Domain Leads

Risk Director/Manager teams are assigned to individual domains and serve as mentor and coach to assist organizations in reaching the objectives laid out in the BETA HEART Guideline

- Culture Survey debrief process
- Just Culture
- Lean A3 – Event Identification and Response
- Cognitive Interviewing
- Event Analysis
- Empathic Communication
- Building a Care for the Caregiver Program



Comprehensive Toolkit to Support Implementation

Over 300 pages of
tools, templates
checklists, resources
and
reference materials

BETA HEART TOOLKIT
Table of Contents
Note: Hover and click onto any section listed below to go directly to the page.

Introduction to BETA HEART 7

DOMAIN 1: Culture of Safety

Section 1: What is Safety? 38
Next Steps 39
References 39

Section 2: How do we measure Safety? 40
SCORE Survey Administration 40
SCORE Survey Administration 41
SCORE Survey Debriefs 41
Next Steps 41

Section 3: How do we improve Safety? 41
Learning Environment 41
Leadership Engagement 41
Burnout Climate 41
Teamwork 41
Work Life Balance 41
Workforce Engagement 41
Next Steps 41

Section 4: Choosing our Safety Culture 41
Next Steps 41

Section 5: Introduction to Safety 41
Background 41
Implementation 41
Recommendations 41

Section 6: Introduction to Safety 41

DOMAIN 2: Patient and Family Engagement

Section 1: Introduction to Patient and Family Engagement 129
Operationalization 130
What Should We Do? 133

Section 2: Patient and Family Engagement 133
Applying Best Practices 133
Fact-Finding 133

Section 3: Introduction to Patient and Family Engagement 133
Applying Best Practices 133
Patient and Family Engagement 133

Section 4: Preparing for Patient and Family Engagement 133
Next Steps 133
Recommended Reading & Viewing 133

Section 5: Performance 133
Post-Communication Debrief 133
Communication and Teamwork 133

Section 6: Cultural, Men 133
Cultural Considerations 133
Communicating with Asynchronous Patients 133

Section 7: Introduction to Patient and Family Engagement 133
Background 133
Implementation 133
Recommendations 133

Section 8: Introduction to Patient and Family Engagement 133

DOMAIN 3: Care for the Caregiver

Section 1: Introduction to Care for the Caregiver 228
Background 228
The CANOOR Project 228
Research 228
Organizational Response 228
Barriers to Successful Implementation 228
Liability and Exposure to 228

Section 2: Introduction to Care for the Caregiver 228
HEART Team Communication Response and Follow-Up 228
Communication Team On Call Schedule 228
Communication with the Patient/Family - Template Policy 228

Section 3: Introduction to Care for the Caregiver 228
Next Steps 228
Recommended Reading & Viewing 228

Section 4: Introduction to Care for the Caregiver 228
Getting Started with Care 228
Internal Patient Safety Culture Preparation 228
Steering Committee 228
Establishing the Program's Infrastructure 228

Section 5: Introduction to Care for the Caregiver 228
Next Steps 228
References 228

Section 6: Introduction to Care for the Caregiver 228
Building Your Peer Support Program 228
BETA HEART Care for the Caregiver 228

Section 7: Introduction to Care for the Caregiver 228
Training Your Peer Support 228
The Importance of Peer Support 228
Fundamental Understanding 228
Role of the Peer Supporter in the Care 228
Risks and Manifestations of Emotions 228
The Six Stages of Recovery 228
Support Strategies and Interventions 228

Section 8: Introduction to Care for the Caregiver 228
Tools for the Effective Peer Supporter 228
The Encounter Process 228
Special Circumstances 228
Taking Care of Yourself 228
Next Steps 228
Acknowledgements 228
References 228
Ongoing Training for Peer Supporters 228

Section 9: Introduction to Care for the Caregiver 228
Organizational Rollout 228
Determine a Name for Your Peer Support Program 228
Recruit Peer Supporter Applicants 228
Appendix 228

Section 10: Introduction to Care for the Caregiver 228
Provide Formal Education for Staff and Physicians 228
Develop an Education and Training Plan for Orientation 228
Surveillance Training for Supervisors and Managers 228
Ongoing Training 228
Taking Care of Yourself 228

Section 11: Introduction to Care for the Caregiver 228
Next Steps 228

Section 12: Introduction to Care for the Caregiver 228
Program Evaluation 228
Evaluating Program Effectiveness 228
The Caregiver's Perspective 228
The Peer Supporter's Perspective 228
Program Effectiveness Goals and Measures 228
Next Steps 228
Appendix 228

DOMAIN 4: Care for the Patient

Section 1: Introduction to Care for the Patient 294
Background 294
The CANOOR Project 294
Research 294
Organizational Response 294
Barriers to Successful Implementation 294
Liability and Exposure to 294

Section 2: Introduction to Care for the Patient 294
HEART Early Resolution Process 294
BETA HEART Response Algorithm 294
Early Resolution FAQs 294

Section 3: Introduction to Care for the Patient 294
Tools 294
Report of HEART Event Form 294
Patient Safety Report to Stakeholder Consensus Meeting 294
Sample Release 294
Recommended Viewing 294
Appendix 294

Section 4: Introduction to Care for the Patient 294
Next Steps 294

Section 5: Introduction to Care for the Patient 294
Next Steps 294

Section 6: Introduction to Care for the Patient 294
Next Steps 294

Section 7: Introduction to Care for the Patient 294
Next Steps 294

Section 8: Introduction to Care for the Patient 294
Next Steps 294

Section 9: Introduction to Care for the Patient 294
Next Steps 294

Section 10: Introduction to Care for the Patient 294
Next Steps 294

Section 11: Introduction to Care for the Patient 294
Next Steps 294

Section 12: Introduction to Care for the Patient 294
Next Steps 294

Section 13: Introduction to Care for the Patient 294
Next Steps 294

Section 14: Introduction to Care for the Patient 294
Next Steps 294

Section 15: Introduction to Care for the Patient 294
Next Steps 294

Section 16: Introduction to Care for the Patient 294
Next Steps 294

Section 17: Introduction to Care for the Patient 294
Next Steps 294

Section 18: Introduction to Care for the Patient 294
Next Steps 294

Section 19: Introduction to Care for the Patient 294
Next Steps 294

Section 20: Introduction to Care for the Patient 294
Next Steps 294

Section 21: Introduction to Care for the Patient 294
Next Steps 294

Section 22: Introduction to Care for the Patient 294
Next Steps 294

Section 23: Introduction to Care for the Patient 294
Next Steps 294

Section 24: Introduction to Care for the Patient 294
Next Steps 294

Section 25: Introduction to Care for the Patient 294
Next Steps 294

Section 26: Introduction to Care for the Patient 294
Next Steps 294

Section 27: Introduction to Care for the Patient 294
Next Steps 294

Section 28: Introduction to Care for the Patient 294
Next Steps 294

Section 29: Introduction to Care for the Patient 294
Next Steps 294

Section 30: Introduction to Care for the Patient 294
Next Steps 294

Section 31: Introduction to Care for the Patient 294
Next Steps 294

Section 32: Introduction to Care for the Patient 294
Next Steps 294

Section 33: Introduction to Care for the Patient 294
Next Steps 294

Section 34: Introduction to Care for the Patient 294
Next Steps 294

Section 35: Introduction to Care for the Patient 294
Next Steps 294

Section 36: Introduction to Care for the Patient 294
Next Steps 294

Section 37: Introduction to Care for the Patient 294
Next Steps 294

Section 38: Introduction to Care for the Patient 294
Next Steps 294

Section 39: Introduction to Care for the Patient 294
Next Steps 294

Section 40: Introduction to Care for the Patient 294
Next Steps 294

Section 41: Introduction to Care for the Patient 294
Next Steps 294

Section 42: Introduction to Care for the Patient 294
Next Steps 294

Section 43: Introduction to Care for the Patient 294
Next Steps 294

Section 44: Introduction to Care for the Patient 294
Next Steps 294

Section 45: Introduction to Care for the Patient 294
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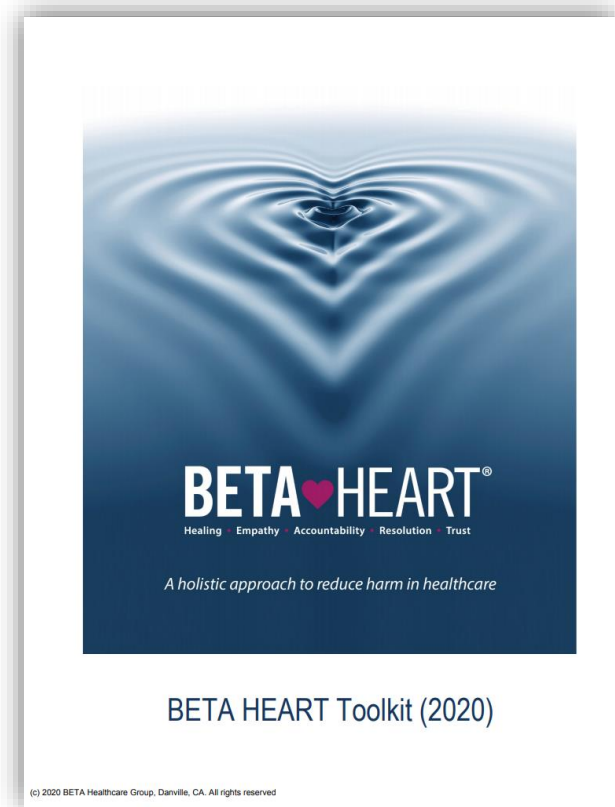
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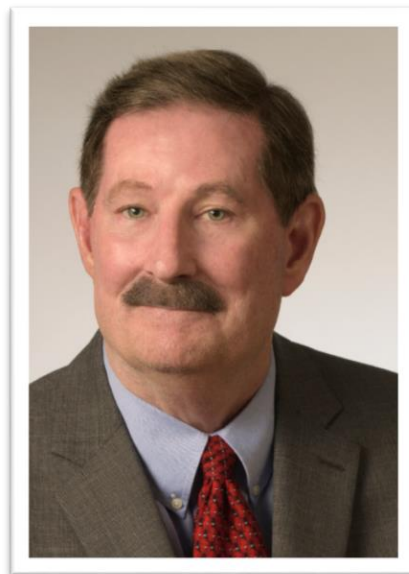
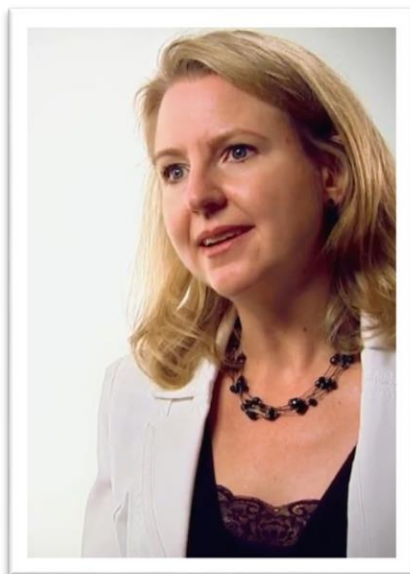
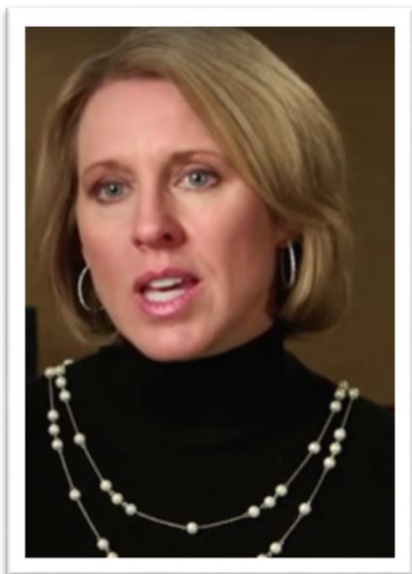


All Share -
All Learn

Quarterly
Collaborative
Calls



Partners and Purpose of BETA HEART



Break

5 MINUTE



Presentation 4

COVID-19 Hospital Lessons Learned: Preparing for What's Next



Karen Smith, MD, MPH

Medical Specialist

Infectious Disease and Public Health

Karen Smith, MD, MPH



Karen Smith, MD, MPH, is a physician specializing in infectious disease and public health. She was appointed in 2015 by Governor Jerry Brown as the California State Public Health Officer and Director of the California Department of Public Health, a position she held through July of 2019. During her tenure at the State, Dr. Smith's work focused on cross sector, innovative approaches to community and population health improvement including the application of public health informatics and data interoperability to complex health issues such as the opioid epidemic. Dr. Smith has worked to develop local, state, and national policy directed at increasing health equity and improving the health and wellbeing of the public through the creation of healthy and resilient communities.

From 2004 to 2015 Dr. Smith served as public health officer and deputy director at the Napa County Health and Human Services Agency and as a member of the medical staff for infectious disease at Queen of the Valley Medical Center in Napa from 2012 to 2015. Prior to her work in Napa County, Dr. Smith served as Deputy Health Officer and Tuberculosis Control Office for Santa Clara County where she was also clinical faculty at the Santa Clara County Valley Medical Center Division of Infectious Diseases and at the Santa Clara County Tuberculosis Clinic. Dr. Smith has been a faculty consultant for the Francis J. Curry International Tuberculosis Center at the University of California, San Francisco. She has also served as a subject matter expert on Public Health Emergency Preparedness and has been a liaison to the Centers for Disease Control and Prevention (CDC), the U.S. Department of Health and Human Services Office of the Assistant Secretary for Preparedness and Response, and for the Board of Scientific Counselors of the CDC Office of Public Health Preparedness and Response.

Dr. Smith is a founding partner of Healthy Community Partners, Inc, a consulting collaborative that integrates strategic design thinking with innovative financial strategies to help communities create sustainable health initiatives that empower their residents, adapt to their changing needs, and enable capital investment. Dr. Smith also works as a medical specialist with Google Health, providing consultation on public health and tools to assist public health authorities in COVID response around the world.

Dr. Smith completed her medical training and infectious diseases fellowship at Stanford University after earning a Master of Public Health degree at Johns Hopkins School of Hygiene and Public health. Prior to her public health and medical training, she served in the Peace Corps as public health laboratory director for the Marrakesh Province in Morocco, and at the Wichienburi Regional Hospital in Thailand.

COVID-19 Hospital Lessons Learned: Preparing for What's Next

Karen Smith, MD, MPH

June 22, 2021

Overview

Challenges - a very brief review

Lessons Learned

Leadership

Data

Partnerships

Quality of Care

Innovation

EQUITY

Preparing for what comes next

Challenges

HHS OIG 3/23-27

Severe Shortages of Testing Supplies
and Extended Waits for Results

Widespread Shortages of PPE

Difficulty Maintaining Adequate
Staffing and Supporting Staff

Difficulty Maintaining and Expanding
Hospital Capacity to Treat Patients

Shortages of Critical Supplies,
Materials, and Logistic Support

Anticipated Shortages of Ventilators

Changing and Sometimes
Inconsistent Guidance

McKinsey & Co 11/25/2020

(Surge)

Critical Care Capacity

Supplies: PPE, testing, ventilators

Workforce

Challenges to Quality of Care

Staffing

Skilled Nursing Facilities

Incorporating rapidly evolving clinical “best practices”

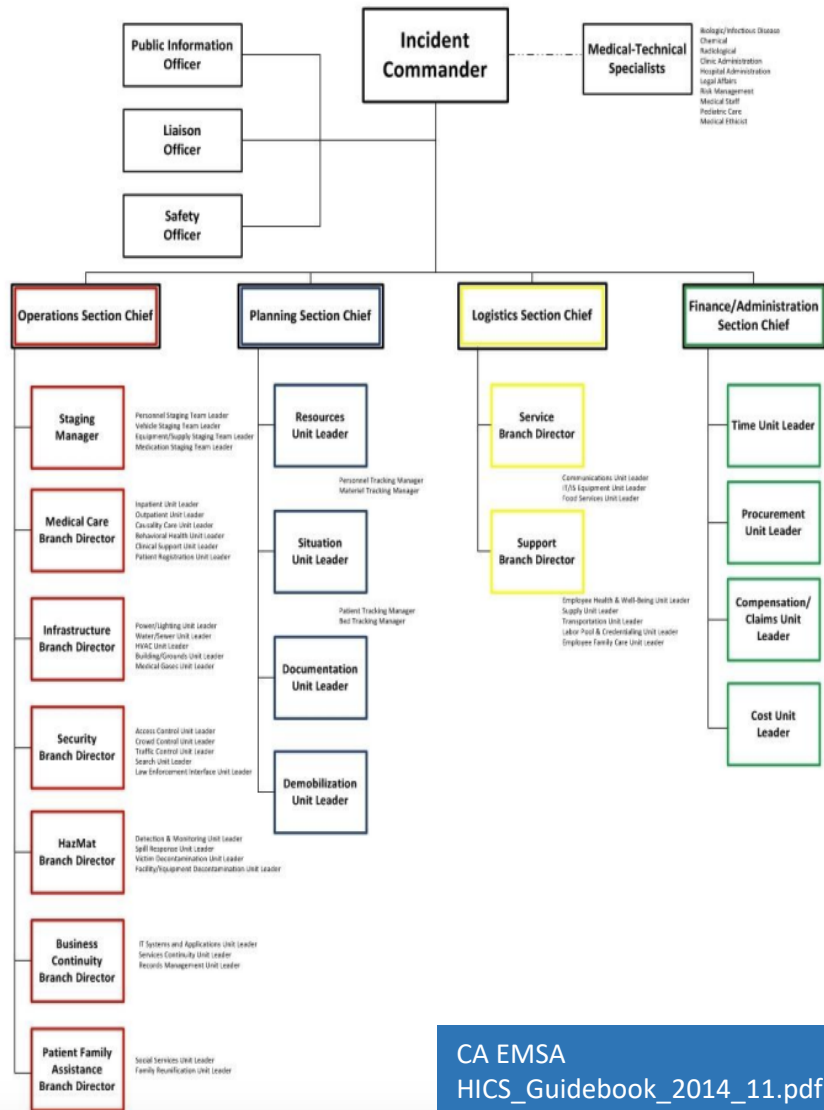
Language barriers

Social isolation

Quality for patients and their families

Leadership

Hospital Incident Management Team



- Complexity is central
- Non-hierarchical
- Focus on highest priorities
- Access to senior leaders
- Delegate authority (expertise over seniority)
- Rapid decision-making
- Take care of your people
- Connectivity within and beyond the hospital

Partnerships: No institution is an island

Your Hospital +

Other local/regional hospitals & committees

Local and state public health departments

Skilled nursing and rehabilitation facilities

Academic institutions

Data sharing partnerships

Data



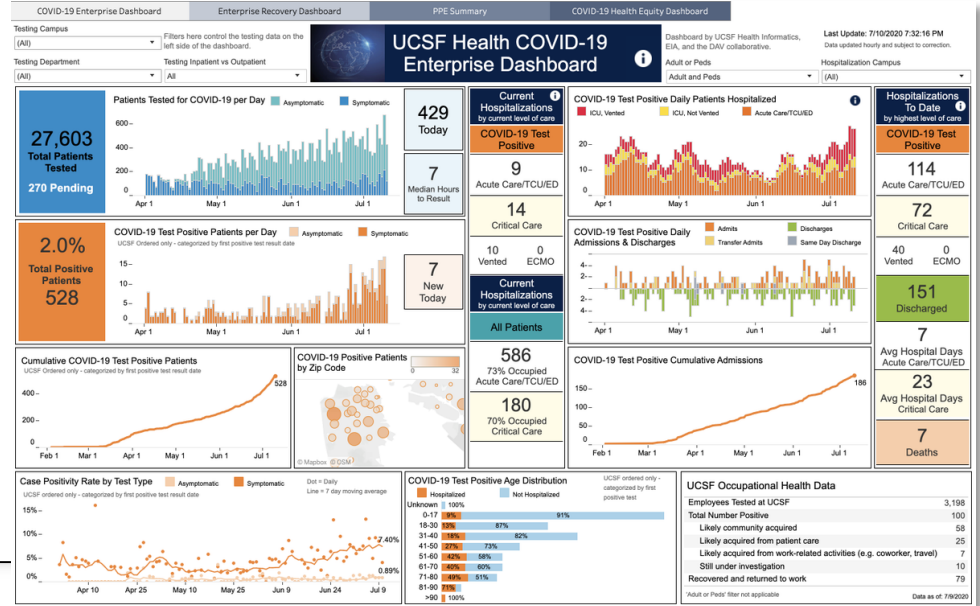
THE VICE PRESIDENT
WASHINGTON

March 29, 2020

At the President's direction, we are requesting that all hospitals report the following information to HHS:

1. COVID-19 Test Result Reporting

- a. We are requesting that all hospitals report data on COVID-19 testing performed in your Academic/University/Hospital "in-house" laboratories. *If all of your COVID-19 testing is sent out to private labs and performed by one of the commercial laboratories on the list below, you do not need to report using this spreadsheet.*
 - i. **Commercial laboratories:** LabCorp, BioReference Laboratories, Quest Diagnostics, Mayo Clinic Laboratories, and ARUP Laboratories.
- b. **Reporting Instructions:** We request that all data for COVID-19 testing completed at "in-house" laboratories or a laboratory not listed above be **reported** using the attached spreadsheet.



Santa Clara County COVID-19 Case Report Form (For instructions see "Reporting COVID-19 Cases")

Send via secure email (coronavirus@phd.sccgov.org) or secure fax (408-224-7046)

Today's date: _____ Healthcare Provider Name: _____ Provider phone: _____

Clinic/Hospital Name: _____

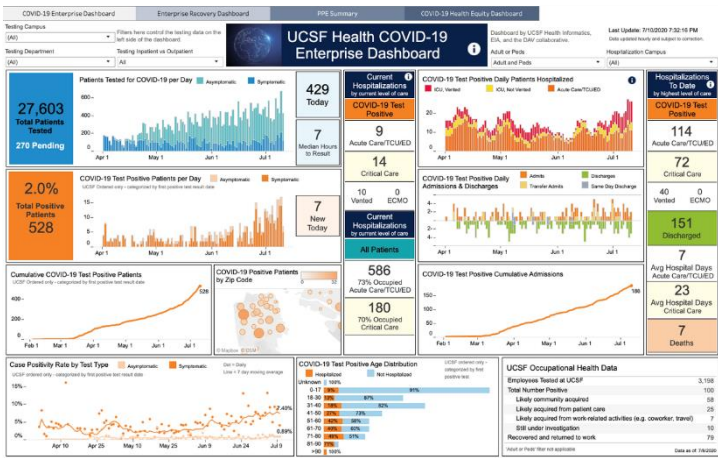
COVID-19 confirmed case home and work information

R. Wachter Twitter

COVID-19 Guidance for Hospital Reporting and FAQs For Hospitals, Hospital Laboratory, and Acute Care Facility Data Reporting Updated May 27, 2021 Implementation Date: June 10, 2021

Innovation

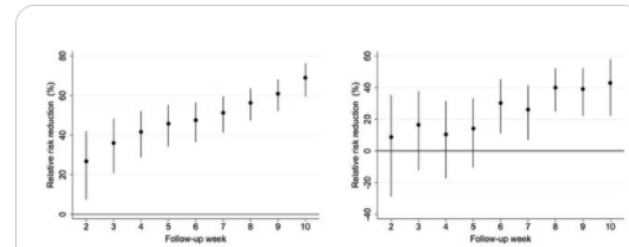
Continuous data aggregation and visualization
Implementation of forecasting data
Press releases and pre-prints
Rapid dissemination of new practices
Twitter and YouTube as educators



Eric Topol @EricTopol · May 29

More on less transmission, yet another incentive: "Our results suggest that mRNA-based vaccines do not only prevent #SARSCoV2 infections among vaccinated individuals but lead to a substantial reduction in infections among unvaccinated household members"

medrxiv.org/content/10.1101...



(a) Vaccine effectiveness on vaccinated individuals (b) Vaccine effectiveness on unvaccinated spouse
Figure 1: Vaccine effectiveness on vaccinated individuals and unvaccinated spouses living in the same household

40 657 1.8K

Equity

First and foremost

Data on Race, Ethnicity and Language is essential

- Forecasting needed capacity
- forecasting your staffing
- detecting disparities in outcomes (before & after discharge)

Focus on disparities alongside safety and quality

Quality of care for patients AND their families

Building trust in vulnerable communities

Now What?

Preparing - What do we do now?

Identify your lessons learned

- codify those you can | elevate those you can't

Identify what went wrong

- fix (& codify) what you can | plan to mitigate those you can't

Solidify and expand partnerships

Develop pipelines for key roles and leadership

- Train, train, train

Strengthen your focus on equitable care

Presentation 5

Don't Panic: Understanding Variations in Data



Scott V. Masten, PhD

*Vice President of Measurement Science and
Performance Analytics
Hospital Quality Institute*

Scott V. Masten, PhD



Scott Masten is the Vice President of Measurement Science and Data Analytics at the Hospital Quality Institute, which is the non-profit quality improvement arm of the California Hospital Association and the state regional hospital associations. He has a multidisciplinary background, having earned his injury epidemiology doctorate from the University of North Carolina at Chapel Hill and experimental psychology master's degree from California State University, Sacramento. He is experienced in research design, study implementation, and a large array of statistical techniques, taught undergraduate research methods and statistics courses at California State University, Sacramento, and still teaches a two-semester series of graduate-level applied statistics courses at Alliant International University.

His primary focus at HQI has been to develop, manage, and continually improve HQI's Hospital Quality Improvement Platform, which is a free web-based comparative quality analytics and reporting platform that uses data all California hospitals already report to OSHPD and NHSN to create over 300 quality measures that can be compared to peer hospitals. He also spearheaded the implementation of HQI's sentinel signal detection system, which uses artificial intelligence and natural language processing to automatically detect abnormal changes (i.e., signals) in the incidence of diagnosis codes from hospital discharge records in the Hospital Quality Improvement Platform, as well as term frequencies from CHPSO safety reports for the purpose of alerting member hospitals of these emerging conditions so they can act to stop the spread of disease or harmful conditions and decrease the risk of additional harm to patients. In addition to running HQI's analytics team, he also provides statistical consulting, program evaluation, and education for member hospitals.

Don't Panic – Understanding Variations in Data

Scott Masten, PhD

Vice President, Measurement Science and Data Analytics



Hospital Quality Institute

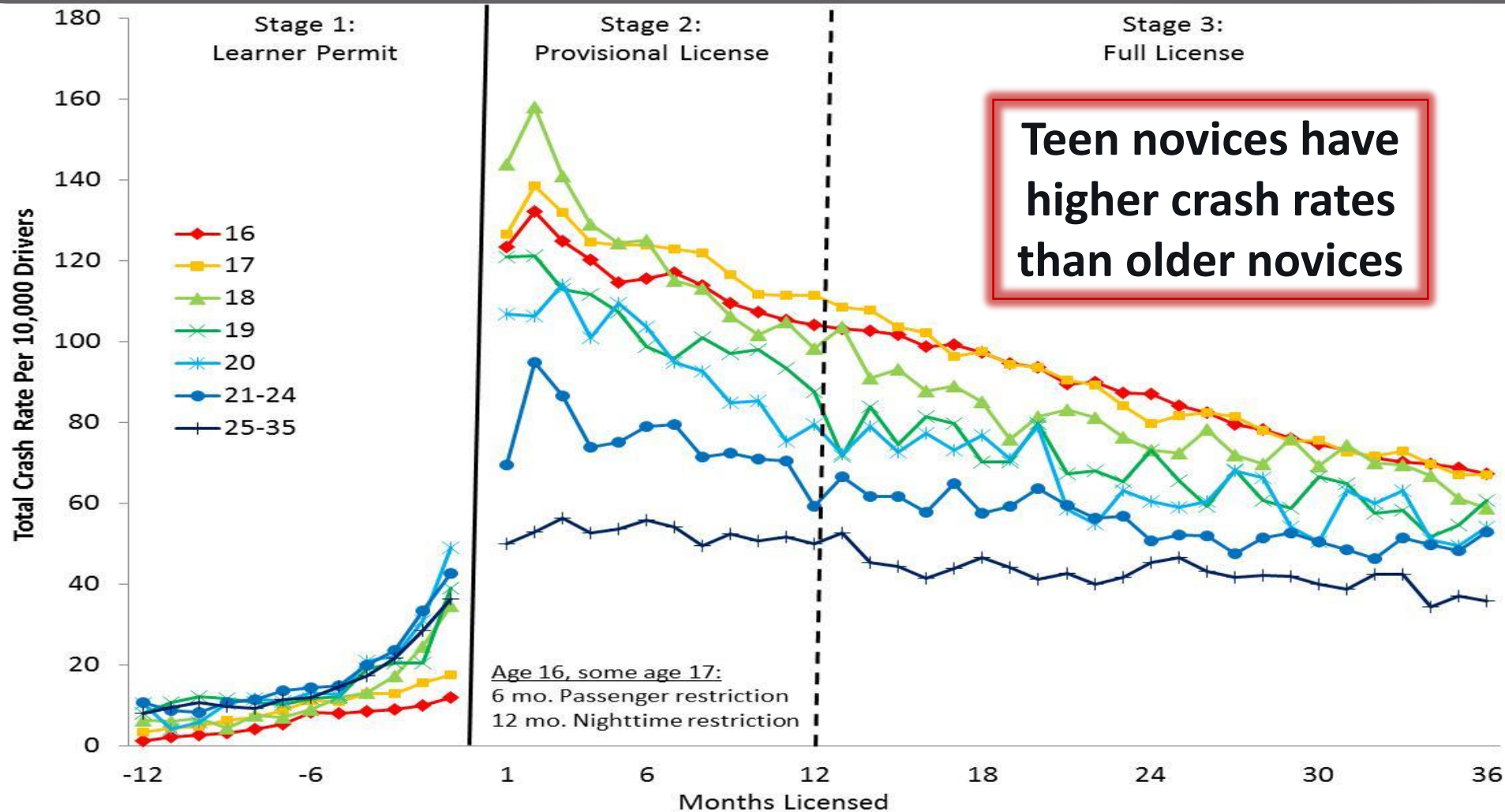
Leadership in quality and patient safety

Hospital Quality Symposium

June 22, 2021

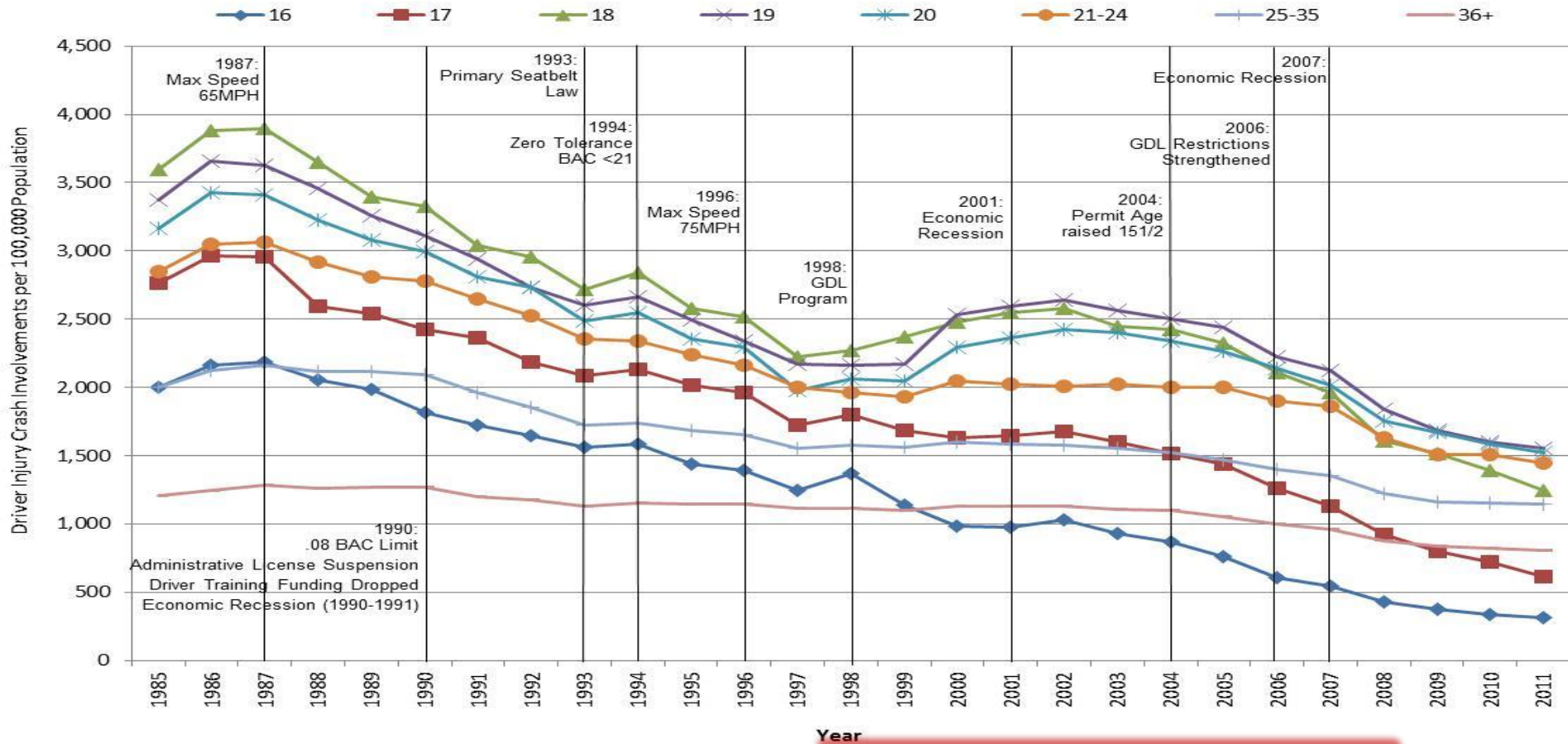
12:30pm – 1:20pm

CA Total Crash Rates of Novice Drivers



CA Crash Rates, per 100,000 capita

California Driver Injury Crash Involvements per 100,000 Population by Age 1986-2011

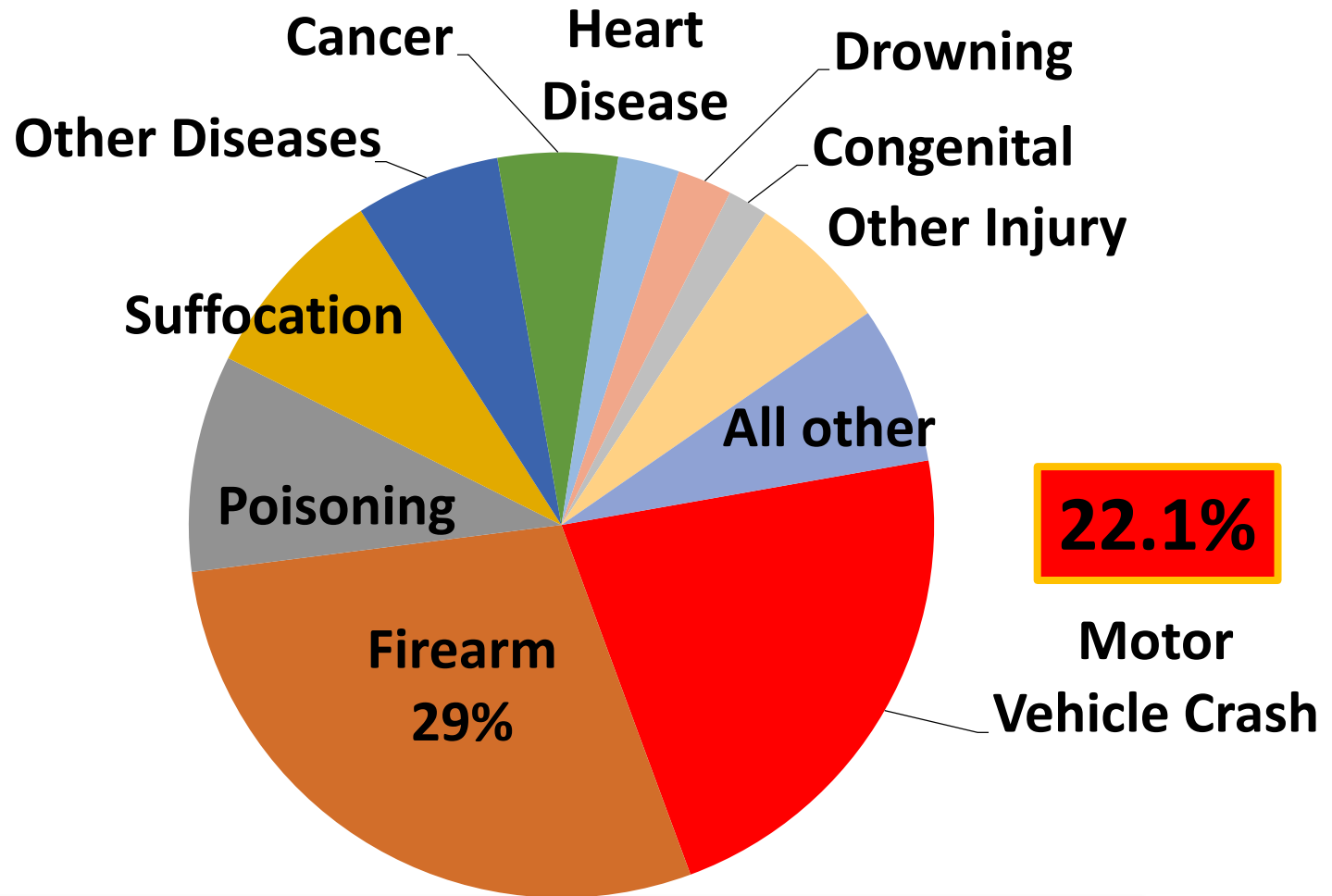


Crash rates are generally lower as a function of older age

Younger drivers have the highest crash rates

Age 16-19 Leading Causes of Death United States, 2019

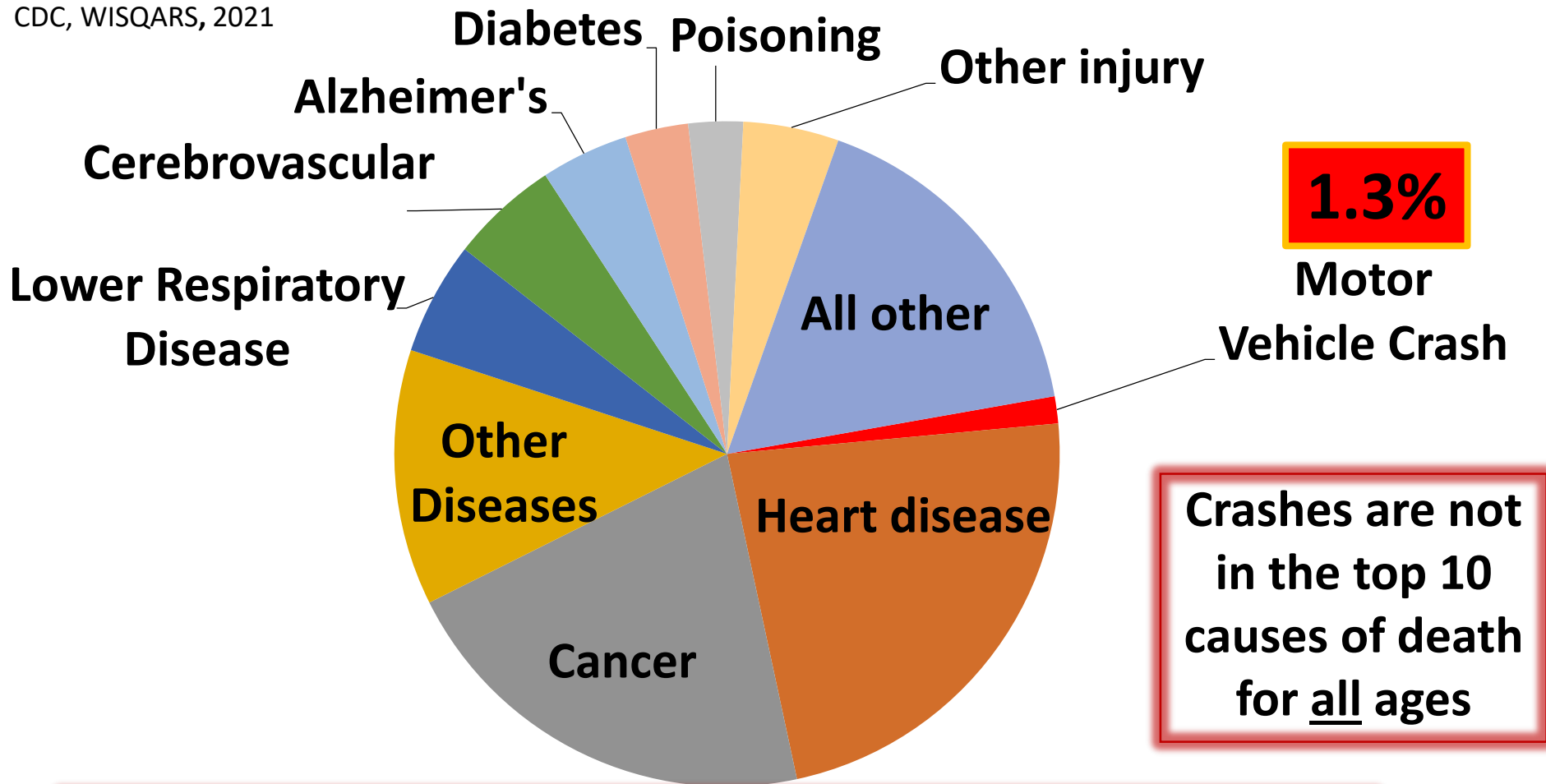
CDC, WISQARS, 2021



Crashes are #2 cause of death for 16-19-year-olds

All-Age Leading Causes of Death United States, 2019

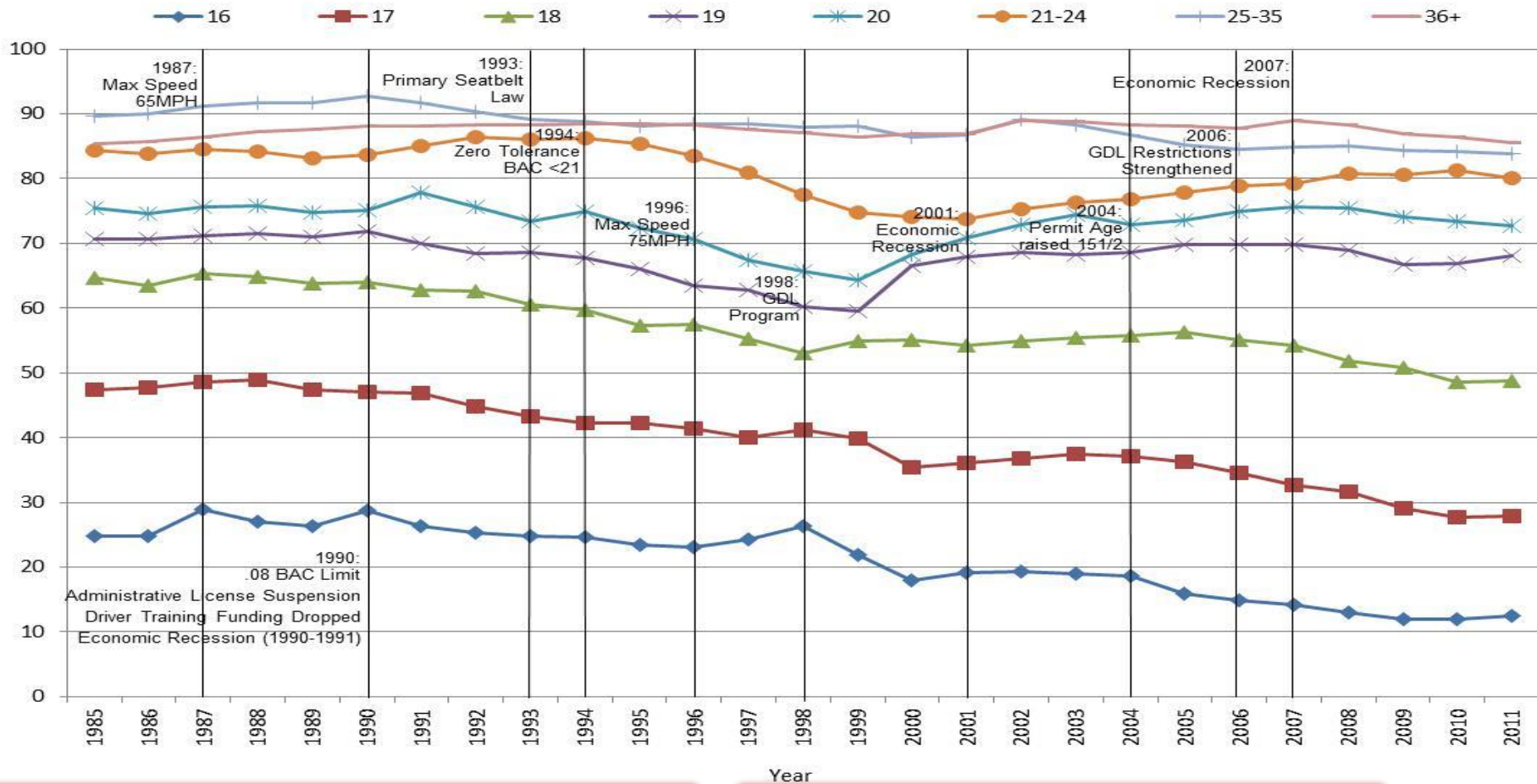
CDC, WISQARS, 2021



Why? Partly due to competing risks and crash severity, but also: Those with the highest rates are fewest in number

California Licensure Rates by Age

California Percentage of Population Licensed by Age 1986-2011



Although teens have high crash rates, licensure rates are lower than adults

High rates x small number of drivers = low actual # of crashes

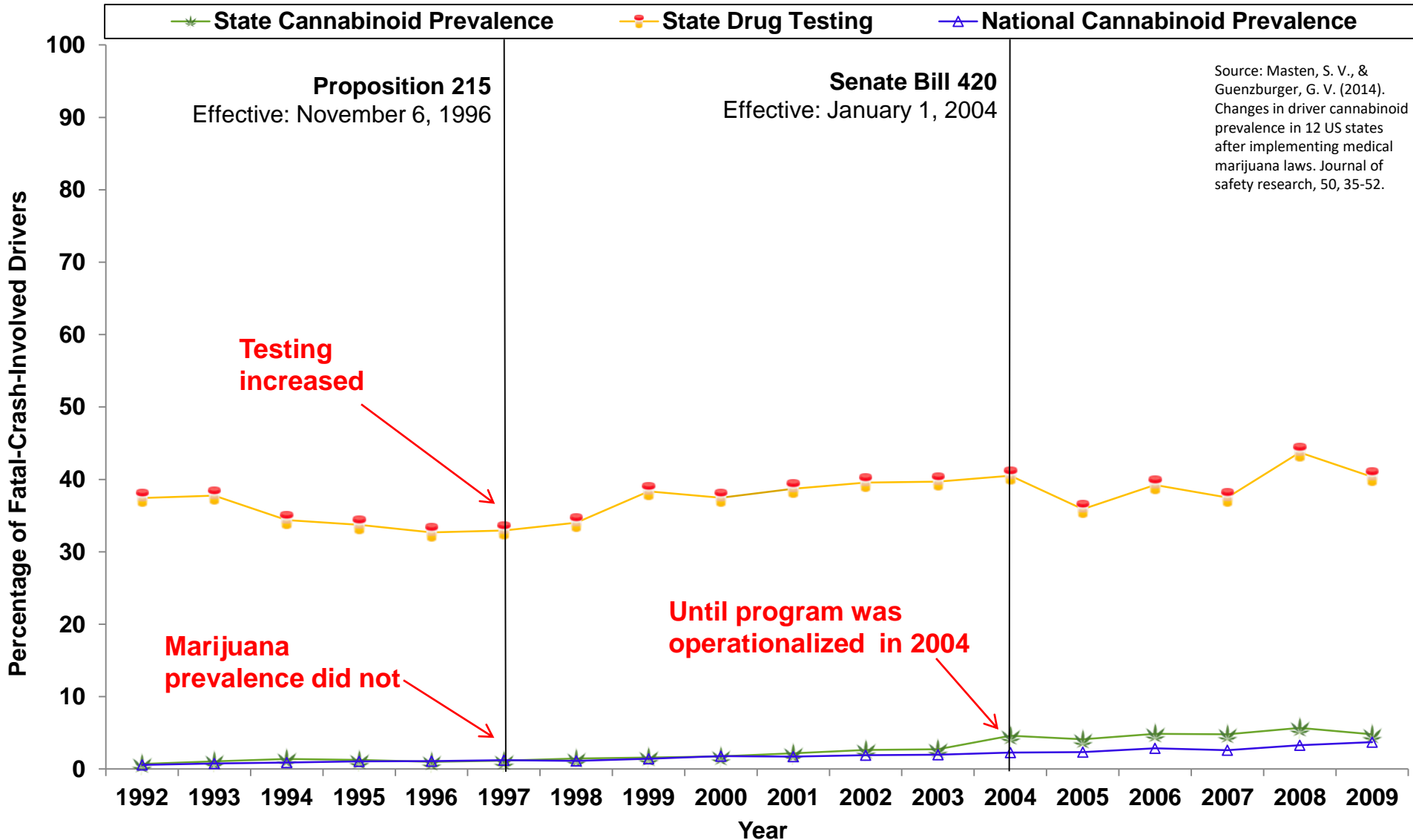
Medical Marijuana & THC Prevalence among Drivers

Did Medical Marijuana Laws Increase Cannabinoid Prevalence Among Drivers in Crashes?

- **Source:** Fatality Analysis Reporting System (FARS)
- **Period Observed:** 1992 - 2009
- **Interventions:** Dates medical marijuana laws were implemented in 14 U.S. states
- **Cohorts:** All drivers involved in fatal crashes; fatally-injured drivers
- **Adjustments:** Drug testing of drivers in each state; national cannabinoid prevalence



Drug Testing and Cannabinoid Prevalence Among Fatal-Crash Involved CA Drivers



Change in Cannabinoid Prevalence Among Fatal-Crash-Involved Drivers

State	Δ_{PPadj}	95% CI	$\Delta_{\%adj}$
Alaska	-2.2	-5.5, 1.1	-39.2
California	2.1*	1.4, 2.9	195.8
Colorado	-0.2	-1.7, 1.3	-4.8
Hawaii	6.0*	4.4, 7.6	235.3
Maine	0.1	-0.3, 0.6	50
Maryland	0.1	-0.4, 0.6	86.3
Michigan	-0.1	-0.6, 0.4	-8
Montana	-0.6	-3.1, 1.9	-13.3
Nevada	1.2	-0.3, 2.6	58.8
New Mexico	0.1	-2.0, 2.2	3
Oregon	0.1	-1.0, 1.2	3.3
Rhode Island	-2.5	-6.4, 1.3	-112
Vermont	0	-2.7, 2.8	1.7
Washington	3.4*	1.4, 5.3	454.9

Source: Masten, S. V., & Guenzburger, G. V. (2014). Changes in driver cannabinoid prevalence in 12 US states after implementing medical marijuana laws. *Journal of safety research*, 50, 35-52

So driver cannabinoid prevalence increased in only 3 of 14 states after they passed medical marijuana laws

The Journal Article

Journal of Safety Research 50 (2014) 35–52

Contents lists available at ScienceDirect

Journal of Safety Research

journal homepage: www.elsevier.com/locate/jsr



A B S T R A C T



Changes in driver cannabinoid prevalence in 12 U.S. states after implementing medical marijuana laws

Scott V. Masten*, Gloriam Vanine Guenzburger

California Department of Motor Vehicles, Research and Development Branch, 2570 24th Street, MS H-126, Sacramento, CA 95818-2606, USA



Objective: To determine if cannabinoid prevalence increased among fatal-crash-involved drivers in 12 U.S. states after implementing medical marijuana laws. *Methods:* Time series analyses of 1992 to 2009 driver cannabinoid prevalence from the Fatality Analysis Reporting System. *Results:* Increased driver cannabinoid prevalence associated with implementing medical marijuana laws was detected in only three states: California, with a 2.1 percentage-point increase in the percentage of all fatal-crash-involved drivers who tested positive for cannabinoids (1.1% pre vs. 3.2% post) and a 5.7 percentage-point increase (1.8% vs. 7.5%) among fatally-injured drivers; Hawaii, with a 6.0 percentage-point increase (2.5 vs. 8.5) for all drivers and a 9.6 percentage-point increase (4.9% vs. 14.5%) among fatally-injured drivers; and Washington, with a 3.4 percentage-point increase (0.7% vs. 4.1%) for all drivers and a 4.6 percentage-point increase (1.1% vs. 5.7%) among fatally-injured drivers. Changes in prevalence were not associated with the ease of marijuana access afforded by the laws. *Discussion:* Increased prevalence of the states... e prevalence... ss to a stable... Although this... between states... cal marijuana... : It is recom... improve the

Results: Increased driver cannabinoid prevalence associated with implementing medical marijuana laws was detected in only three states: California, with a **2.1 percentage-point** increase in the percentage of all fatal crash-involved drivers who tested positive for cannabinoids (1.1% pre vs. 3.2% post) ... corresponding to subsequent cannabinoid prevalence being about **196% higher** among all fatal crash-involved drivers in California after SB 420.

2.1%p vs. 196%? These seem to imply completely different conclusions

Both are accurate: The former is an absolute effect; latter is a relative effect

Absolute Effect Estimates

The difference in outcomes between groups/times

- **Examples:** Risk/Rate Difference, Number Needed to Treat

Quick Facts:

- Smaller in magnitude and seem less dramatic
- Do NOT involve relative comparisons of groups/times
- Do NOT confound the effect size with the baseline rate
- However, less intuitive to interpret

Relative Effect Estimates

The ratio of outcomes between groups/times

- **Examples:** Relative Risk, Rate/Odds/Hazard Ratios, Percentage Difference

Quick Facts:

- Larger in magnitude and seem much more dramatic
- Involve relative comparisons of groups/times
- Confound the effect size with the baseline rate
- Seem easy to understand, but are prone to misinterpretation (particularly by the press and public)

Different Effect Estimates for the Medical Marijuana Study

State	Rate _{Pre}	Rate _{Post}	RD	RR	NNT	%D
California	1%	3%	2	3	50	200%
π Equation	$\frac{\text{Pre-law THC Drivers}}{\text{Total Drivers}}$	$\frac{\text{Post-law THC Drivers}}{\text{Total Drivers}}$	$\text{Rate}_{\text{post}} - \text{Rate}_{\text{pre}}$	$\frac{\text{Rate}_{\text{post}}}{\text{Rate}_{\text{pre}}}$	$\frac{1}{\text{RD}}$	$(\text{RR} - 1) \times 100$

Note: Numbers rounded for didactic purposes.

Source: Masten, S. V., & Guenzburger, G. V. (2014). Changes in driver cannabinoid prevalence in 12 US states after implementing medical marijuana laws. *Journal of safety research*, 50, 35-52.

- **Rates (THC drivers):** 1% pre vs. 3% post-law **Absolute**
- **Risk Difference (RD):** Post-law rate 2%-point higher **Effect size**
- **Rate Ratio (RR):** Post-law rate was 3x pre-law rate
- **Number Needed to Treat (NNT):** For every 50 fatal crashes post-law, 1 additional THC driver was involved **Relative**
- **Percentage Difference (%D):** Post-law rate 200% higher **Effect size**

Same study, but two seemingly vastly different impressions

This is due to something called the "Relative Effect Fallacy"

The “Relative Effect Fallacy”

When low absolute incidence (rare events) makes relative effect estimates seem dramatically large

- Statins (cholesterol-busting drugs)
- Clearly effective to reduce subsequent AMI & stroke risk



Health

New statin guidelines: Everyone 40 and older should be considered for the drug therapy

EDITORIAL (FREE PREVIEW)

More HOPE for Prevention with Statins

William C. Cushman, M.D., and David C. Goff, Jr., M.D., Ph.D.

Statins reduced death by 23% over 5.6 years among people without confirmed AMI/stroke

ORIGINAL ARTICLE

Cholesterol Lowering in Intermediate-Risk Persons without Cardiovascular Disease

Salim Yusuf, M.B., B.S., D.Phil., Jackie Bosch, Ph.D., Gilles Dagenais, M.D., Jun Zhu, M.D., Denis Xavier, M.D., Lisheng Liu, M.D., Prem Pais, M.D., Ph.D., Lawrence A. Leiter, M.D., Antonio Dans, M.D., Alvaro Avezum, M.D., Ph.D., Leopoldo S. Piegas, M.D., Ph.D., et al. for the

23% vs. 1.1%?

- Relative benefit = 22.9% $[(1.1 / 4.8) \times 100]$

- **3.7%** who took statins died
- **4.8%** who took the placebo died
- Absolute benefit = 1.1% (4.8 - 3.7)

Relative effect appears dramatic, because incidence is low

Sources:

<https://www.washingtonpost.com/news/to-your-health/wp/2016/11/13/new-statin-guidelines-everyone-age-40-should-be-considered-for-the-drug-therapy/>

Cushman, W. C., & Goff, D. C. (2016). More HOPE for prevention with statins. *N Engl J Med*, 374(21), 2085-7.
Yusuf, S., Bosch, J., Dagenais, G., Zhu, J., Xavier, D., Liu, L., ... & Avezum, A. (2016). Cholesterol lowering in intermediate-risk persons without cardiovascular disease. *New England Journal of Medicine*, 374(21), 2021-2031.

Need Absolute & Relative Effects

WHY THE NUMBERS MATTER

RELATIVE RISK

"New wonder drug reduces heart attack risk 50%"

ABSOLUTE RISK

"New wonder drug reduced heart attacks from from 2 per 100 to 1 per 100"

The absolute risk is more useful at conveying the true impact of an intervention, yet is often under-reported in the research and the news.



“Knowing only the relative effect is like having a 50% off coupon for selected items at a store, but you don’t know if the coupon applies to a diamond necklace or to a pack of chewing gum.”

- [Woloshin](#) & [Schwartz](#), Dartmouth Institute for Health Policy & Clinical Practice

Does this sound like a wonder drug?

Relative Effect: New drug reduces the risk for AMI by 50%

Absolute Effect: 5-year AMI risk went from 2% to 1%

Both types of effect sizes are needed to understand the true impact meaning

Source:

<https://www.healthnewsreview.org/toolkit/tips-for-understanding-studies/absolute-vs-relative-risk/>

Absolute vs. Relative Effects: Low-Dose Aspirin to Prevent CVD

Experts debate: Do healthy people need an aspirin a day?

STAT

By PATRICK SKERRETT @PJSkerrett / APRIL 11, 2016



Annals of Internal Medicine®

LATEST ISSUES CHANNELS CME/MOC IN THE CLINIC JOURNAL CLUB WEB EXCLUSIVES AUTHOR INFO

◀ PREVIOUS ARTICLE | THIS ISSUE | NEXT ARTICLE ▶
CLINICAL GUIDELINES | 21 JUNE 2016

Aspirin Use for the Primary Prevention of Cardiovascular Disease and Colorectal Cancer: U.S. Preventive Services Task Force Recommendation Statement FREE

Kirsten Bibbins-Domingo, PhD, MD, MAS; on behalf of the U.S. Preventive Services Task Force *

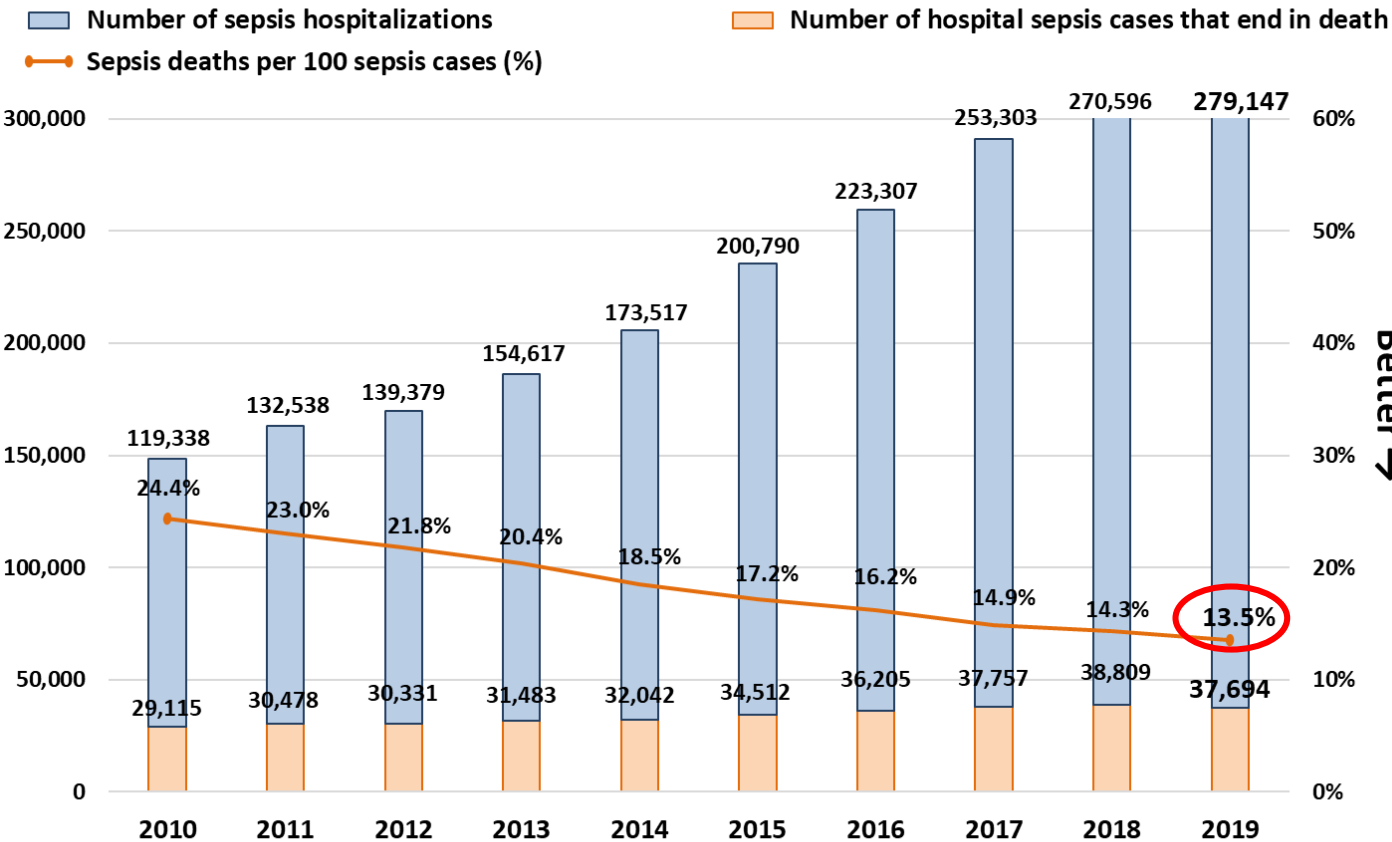
Sources:
<https://www.statnews.com/2016/04/11/aspirin-primary-prevention/>
Bibbins-Domingo, K. (2016). Aspirin use for the primary prevention of cardiovascular disease and colorectal cancer: US Preventive Services Task Force recommendation statement. *Annals of internal medicine*, 164(12), 836-845.

In a meta-analysis of randomized trials of aspirin for primary prevention ($N = 95,000$), serious cardiovascular events occurred in **0.51%** of participants taking aspirin and **0.57%** of those not taking aspirin. That corresponds to a **10.5% relative reduction** in risk.

- **Relative Effect = 10.5% reduction** $(0.57 - 0.51) / 0.57 \times 100$
- **Absolute Effect = 0.06%-point reduction** $(0.57 - 0.51)$
- **NNT = 1667 take dose 5+ years to prevent 1 event** $(1 / 0.0006)$
- The other 1666 receive no benefit and higher bleeding risk

Absolute vs. Relative Effects: In-Hospital Sepsis Mortality

Sepsis Case Mortality Rate (%)
California: 2010-2019 (Annual)^a



^aSource: OSHPD Discharge Data; Data reflect updated Modified Dombrovskiy Method of case identification (ICD-9 & ICD-10).

Success Story

Rates:

- 2019: 13.5%
- 2010: 24.4%

Relative:

44.7% ↓

$$(24.4 - 13.5) / 24.4 \times 100$$

Absolute:

10.9%pt ↓

$$24.4 - 13.5$$

Lives Saved:

30,427 in 2019

$$24.4 * (279,147 / 100) -$$

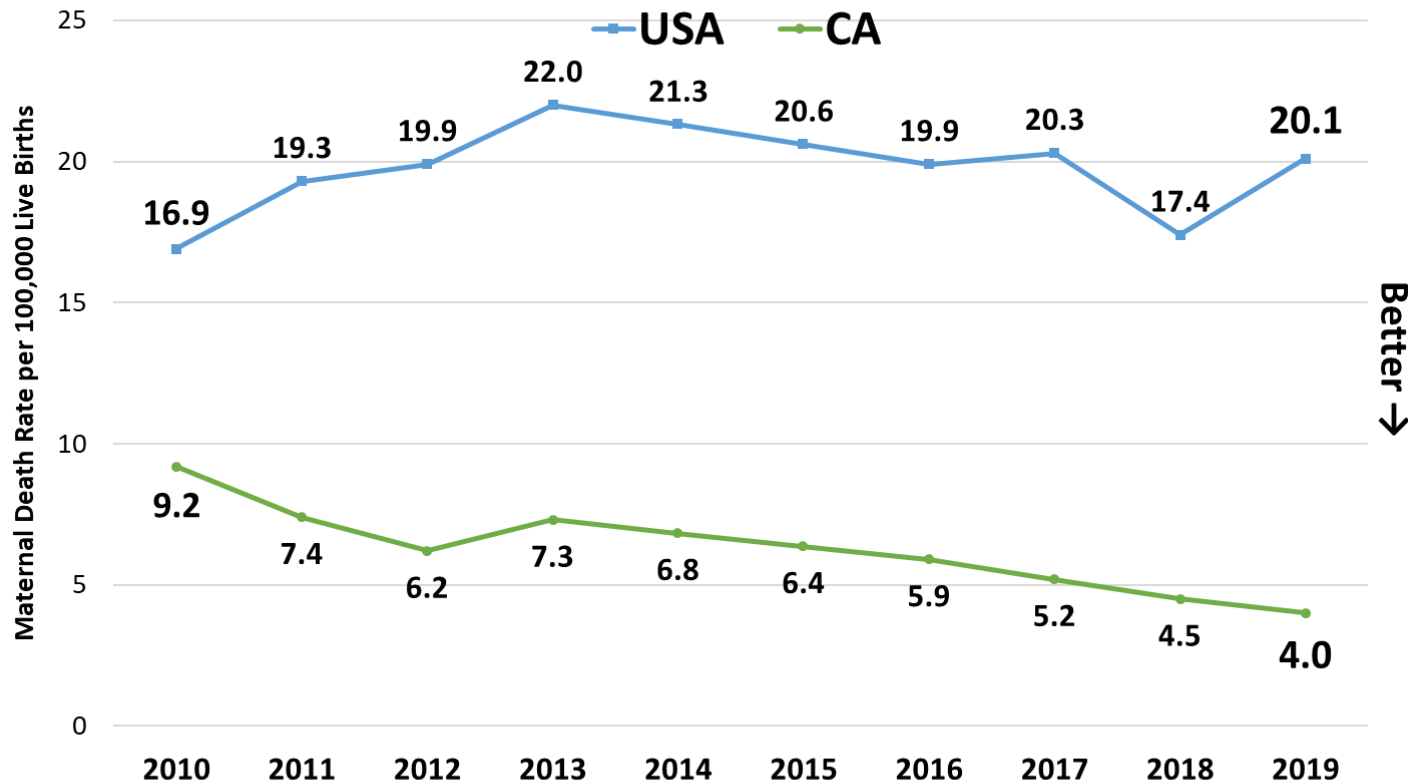
$$13.5 * (279,147 / 100) \approx 68112 - 37685$$

**A big success based
on any effect
measure**

Better →

Absolute vs. Relative Effects: Total Maternal Mortality

Maternal Mortality per 100,000 Live Births,
CA vs. US 2010-2019



Success Story

Rates:

- 2019: 4.0 per 100k
- 2010: 9.2 per 100k

Relative:

56.5% ↓
 $(9.2 - 4.0) / 9.2 \times 100$

Absolute:

5.2 per 100k ↓
 $9.2 - 4.0$

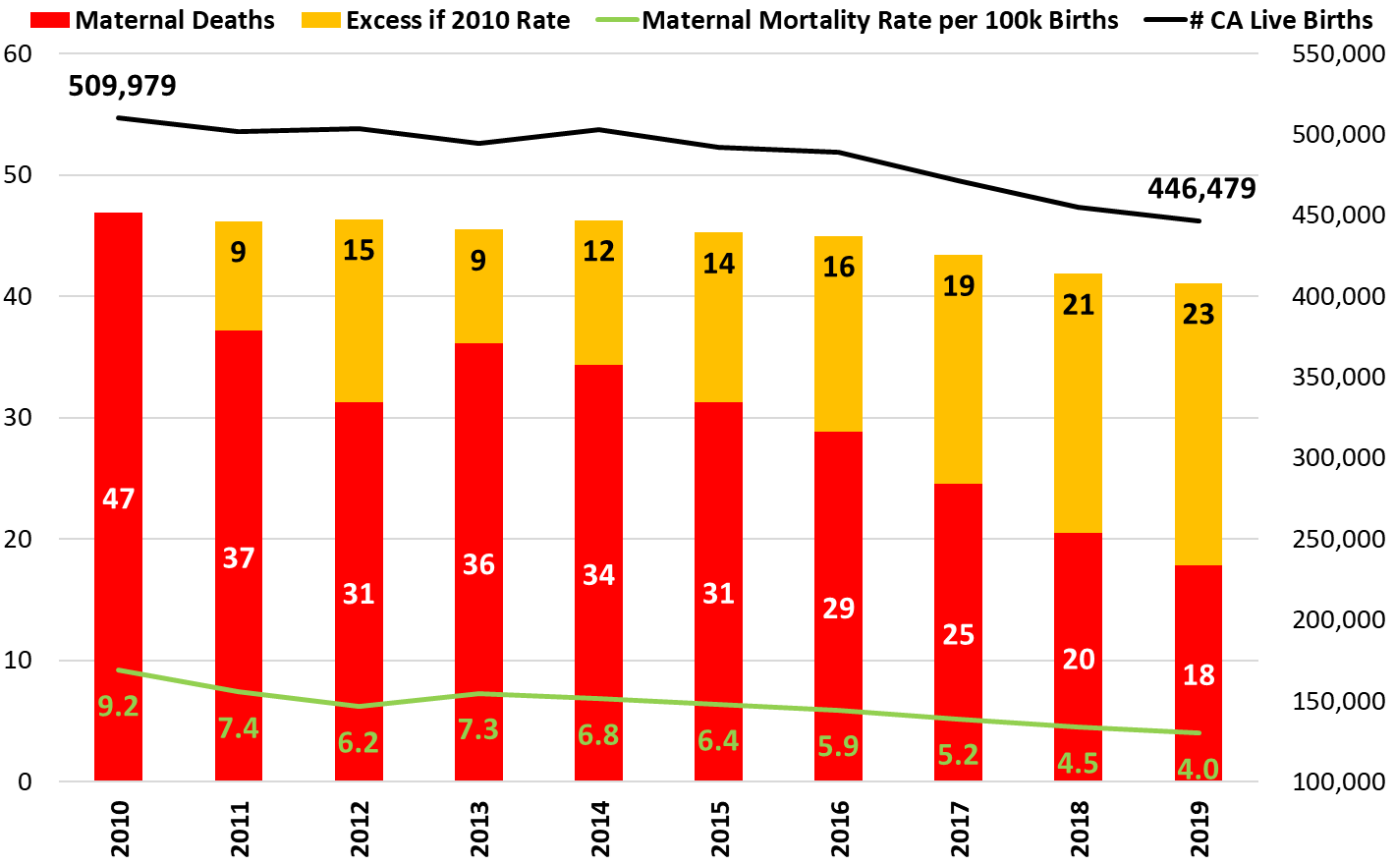
Lives Saved:

23 in 2019
 $9.2 * (446,479 / 100,000) - 4.0 * (446,479 / 100,000) \approx 41-18$

Again, a big success based on any effect measure

Cumulative Absolute Effect: Total Maternal Mortality

Excess Maternal Deaths & Live Births, CA 2010-2019



Red = Actual maternal deaths each year

Orange = Excess maternal deaths if 2010 rate maintained

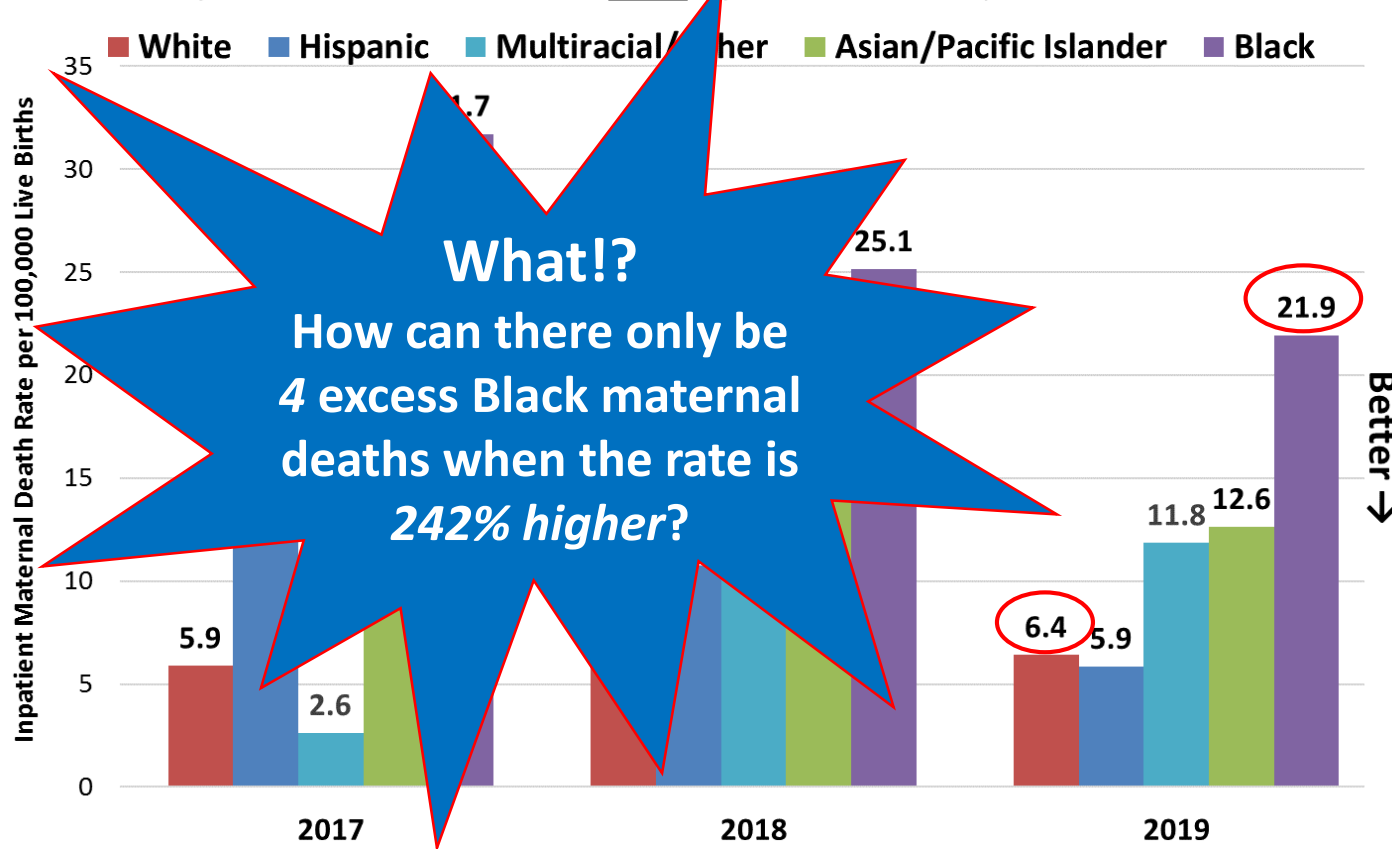
Since 2010:
Maternal deaths ↓
Cumulative lives saved: 139 since 2010
 $\Sigma(\text{Excess } 2010-2019)$

Another amazing effort for CA mothers overall

Source: CDPH, 2010-2013; AmericasHealthRanking, 2014-2017; CDC 2018-2019: <https://www.cdc.gov/nchs/maternal-mortality/index.htm>

In-Hospital Maternal Mortality Rate by Race/Ethnicity

Inpatient Maternal Death Rate by Race/Ethnicity, CA 2017-2019



What!?
How can there only be
4 excess Black maternal
deaths when the rate is
242% higher?

Not a Success Story

2019 Rates:

- Black: 21.9 per 100k
- White: 6.4 per 100k

2019 Relative:

242% ↑

$$(21.9-6.4)/6.4 \times 100$$

2019 Absolute:

15.5 per 100k ↑

$$21.9-6.4$$

2019 Excess Black Maternal Deaths:

≈ 4

$$\frac{(21.9 \times 22,803) - (6.4 \times 22,803)}{100,000}$$

100,000

Source: 2017-2019 OSHPD Inpatient Discharge Data. Definition: Numerator = Number of persons ages 12-55 (inclusive) with at least one of the following maternity ICD-10 codes A34, O00-O95, O98-O99, 09A discharged as "Expired". Denominator = Number of live births.

242% higher is the relative effect, whereas the +4 is the absolute effect

Answer: Very low Incidence (few births)



Relative effects appear dramatic, when incidence is very low

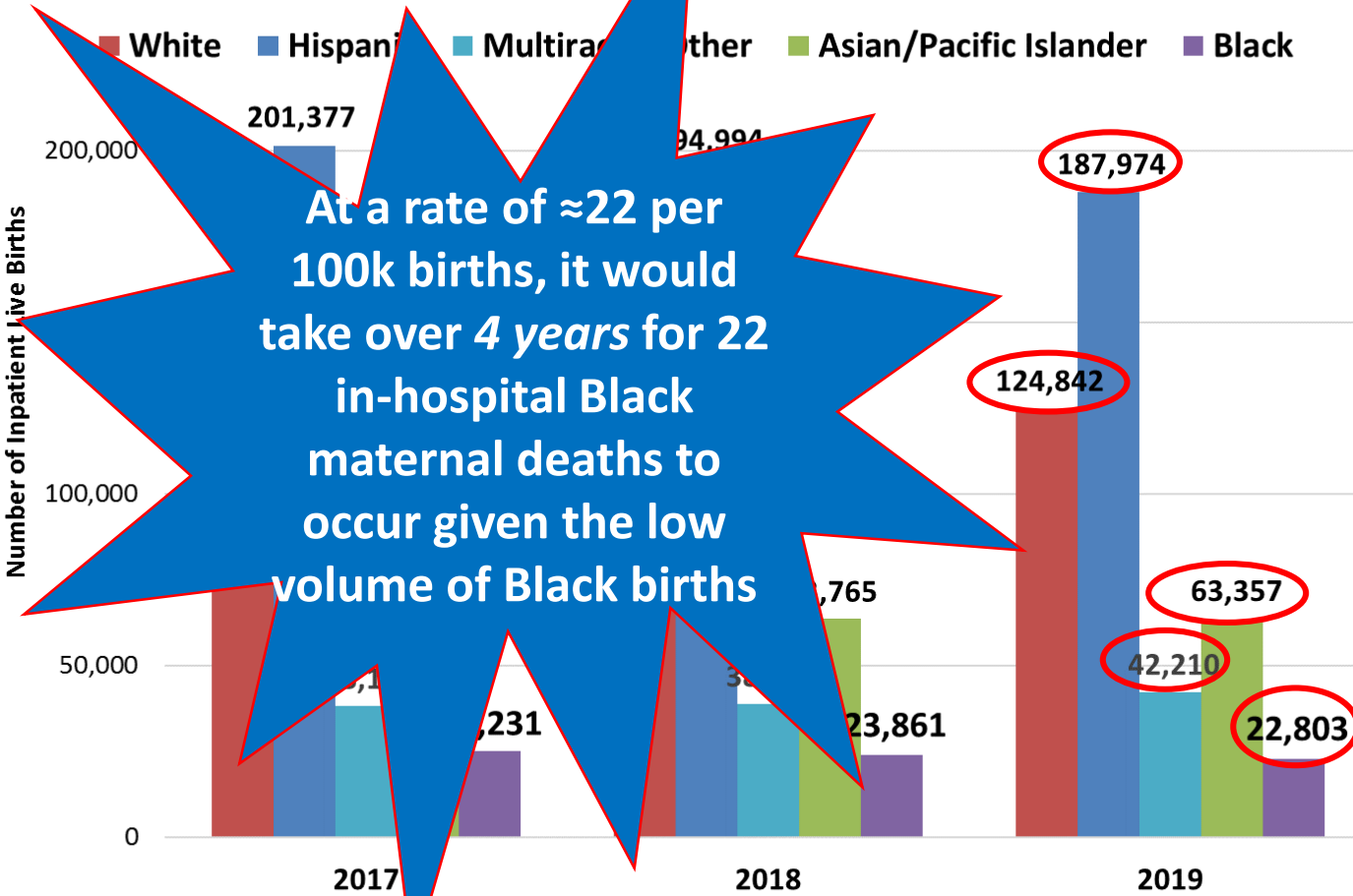


... and I would've gotten away with it if it wasn't for you meddling epidemiologists!



Number of In-Hospital Live Births by Race/Ethnicity

Number of Inpatient Live Births by Race/Ethnicity, CA 2017-2019



At a rate of ≈ 22 per 100k births, it would take over 4 years for 22 in-hospital Black maternal deaths to occur given the low volume of Black births

2019 Live Births:

- White: $\approx 125k$
- **Hispanic: $\approx 188k$**
- Multiracial: $\approx 42k$
- Asian/PI: $\approx 63k$
- Black: $\approx 23k$

Maternal Deaths are usually shown as a rate per 100k live births

The denominator is the primary driver of the actual number of deaths

The incidence of Black live births is the lowest of any race/ethnicity

Source: 2017-2019 OSHPD Inpatient Discharge Data. Definition: Number of live births.

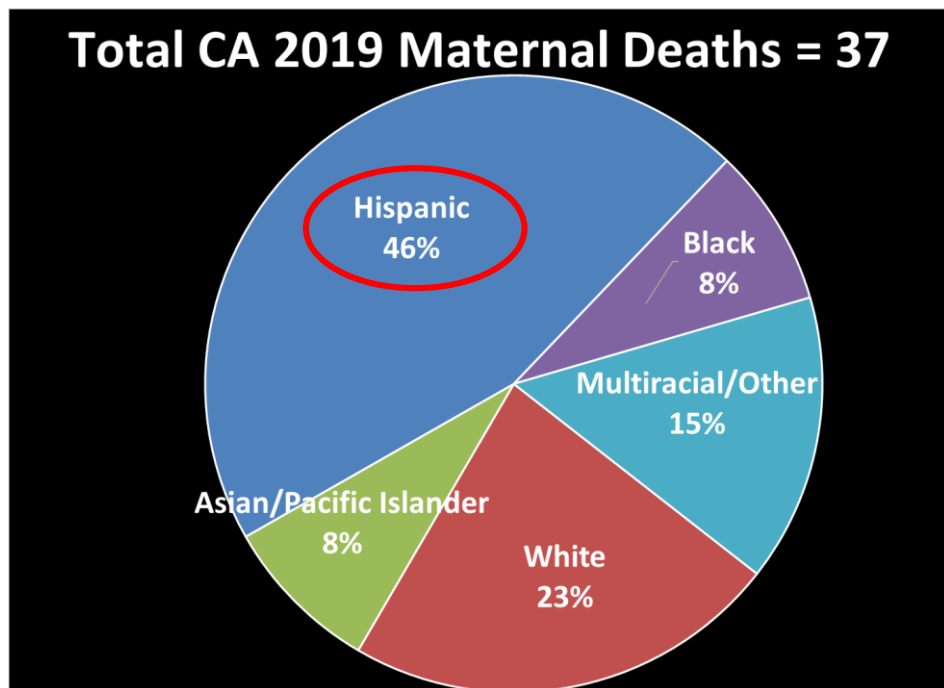
Number of In-Hospital Maternal Deaths by Race/Ethnicity

Inpatient Maternal Deaths by Race/Ethnicity, CA 2017-2019

35 ■ White ■ Hispanic ■ Multiracial/Other ■ Asian/Pacific Islander ■ Black

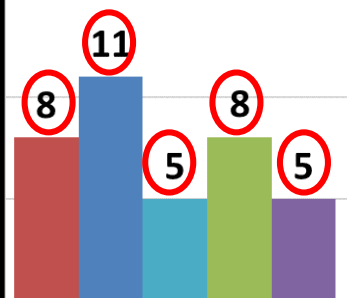
Total CA 2019 Maternal Deaths = 37

Number of Inpatient Maternal Deaths



2017

2018



2019

Better →

2019 Maternal Deaths:

- **White: 8**
6.4*(124,842/100,000)
- **Hispanic: 11**
5.9*(187,974/100,000)
- **Multiracial: 5**
11.8*(42,210/100,000)
- **Asian/PI: 8**
12.6*(63,357/100,000)
- **Black: 5**
21.9*(22,803/100,000)

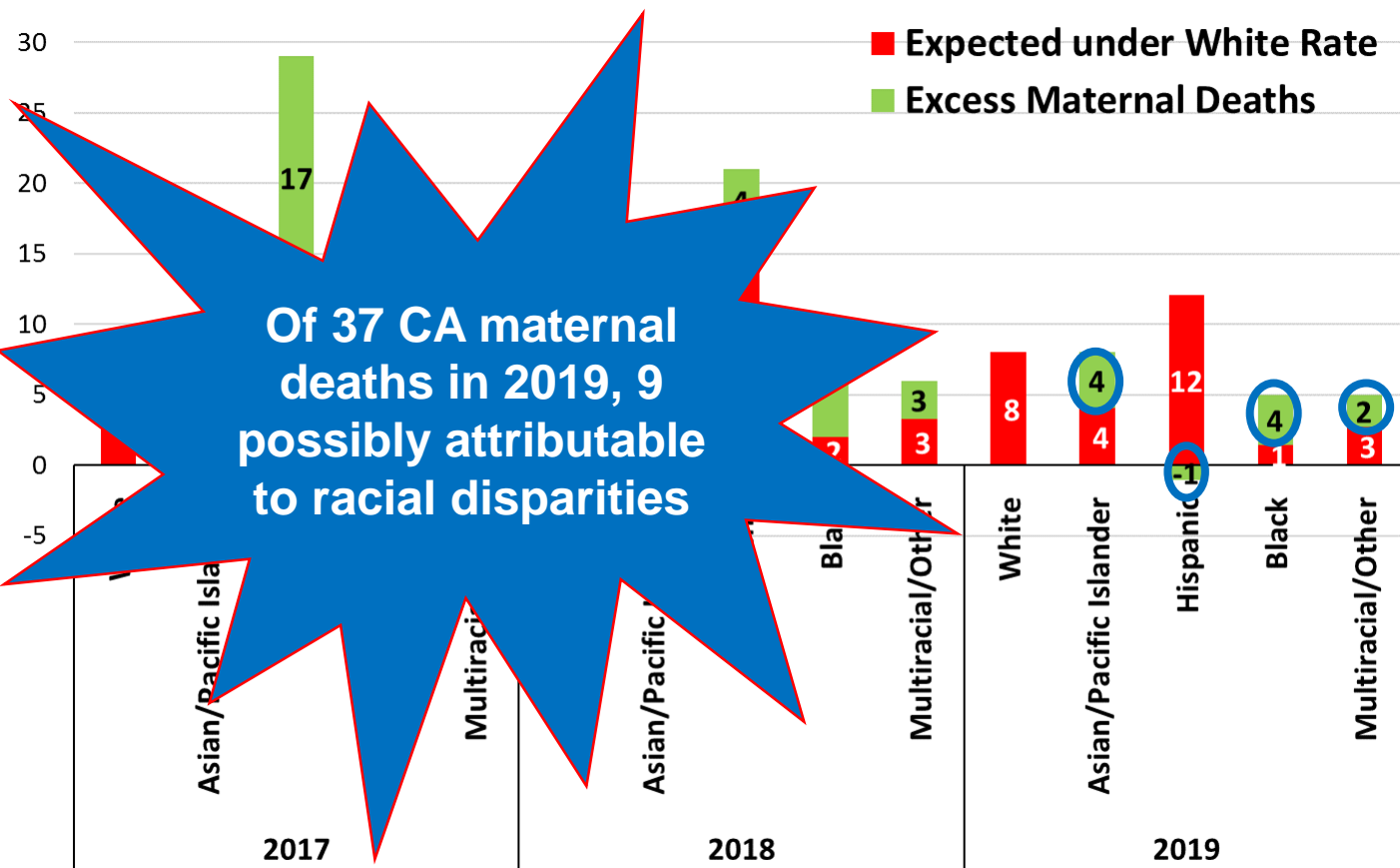
8% were Black mothers

Source: 2017-2019 OSHPD Inpatient Discharge Data. Definition: Number of persons ages 12-55 (inclusive) with at least one of the following maternal ICD-10 codes A34, O00-O95, O98-O99, O9A discharged as "Expired".

Of the 37 CA maternal deaths in 2019, almost 50% were Hispanic mothers

Excess In-Hospital Maternal Deaths by Race/Ethnicity vs. White

Excess Inpatient Maternal Deaths by Race/Ethnicity, CA 2017-2019



Of 37 CA maternal deaths in 2019, 9 possibly attributable to racial disparities

What if all races had the White maternal mortality rate?

2019 Maternal Deaths in excess of White:

- **Asian/PI: 4**

$$\frac{(12.6 * 63,357) - (6.4 * 63,357)}{100,000}$$
- **Hispanic: -1**

$$\frac{(5.9 * 187,974) - (6.4 * 187,974)}{100,000}$$
- **Black: 4**

$$\frac{(21.9 * 22,803) - (6.4 * 22,803)}{100,000}$$
- **Multiracial: 2**

$$\frac{(11.8 * 42,210) - (6.4 * 42,210)}{100,000}$$

Σ Excess Deaths: 9

Source: 2017-2019 OSHPD Inpatient Discharge Data. Definition: Number of persons ages 12-55 (inclusive) with at least one of the following ICD-10 codes A34, O00-O95, O98-O99, 09A discharged as "Expired".

Attribution Perspective on 2019 In-Hospital Maternal Deaths (N = 37)

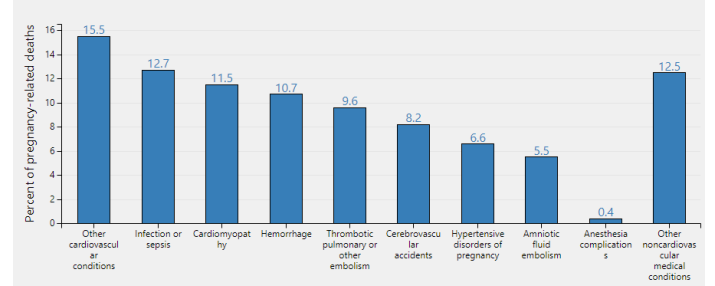
76%: 28 maternal deaths attributable to other causes

24%: 9 maternal deaths possibly attributable to racial disparities

Multiracial/Other, 3
Black, 1
Hispanic, 12
Asian/Pacific Islander, 4
White, 8
Multiracial/Other, 2
Black, 4
Asian/Pacific Islander, 4
Hispanic, -1

There's still work needed to reduce the 76% of in-hospital maternal deaths attributable to other causes

Causes of pregnancy-related death in the United States: 2014-2017



Other Attributable Causes

1. Other cardiovascular (15.5%)
2. Infection or sepsis (12.7%)
3. Cardiomyopathy (11.5%)
4. Hemorrhage (10.7%)
5. Embolism (9.6%)

Source: 2019 OSHPD Inpatient Discharge Data. Definition: Number of persons ages 12-55 (inclusive) with at least one of the following ICD-10 codes A34, O00-O95, O98-O99, O9A discharged as "Expired".

Centers for Disease Control and Prevention. Pregnancy Mortality Surveillance System. Causes of pregnancy-related death in the United States: 2011-2015.

<https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-mortality-surveillance-system.htm>

Healthcare-Associated Infections (HAIs): Standardized Infection Ratios (SIRs)

SIR = Ratio of Observed / Expected numbers of infections (O/E)

- **SIRs = 1.00:** No difference between O and E (4/4 = 1.00)
- **SIRs > 1.00:** O higher than E (5/4 = 1.25 or 25% ↑)
- **SIRs < 1.00:** O lower than E (3/4 = 0.75 or 25% ↓)
- **% Difference:** Relative measure of SIR in CA vs. US

$$\frac{SIR_{CA} - SIR_{US}}{SIR_{US}} \times 100$$

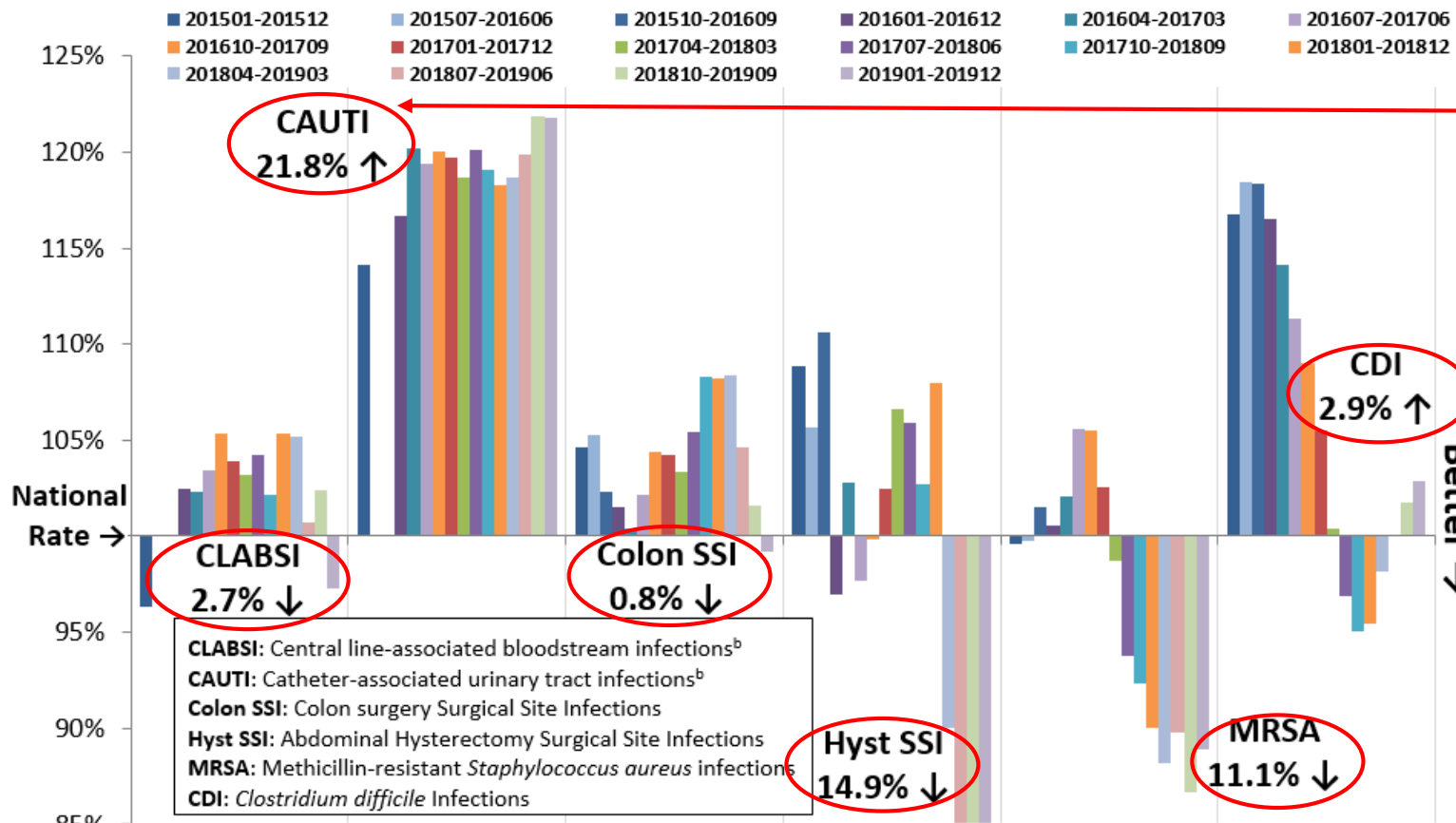
HAI Measure	Better	California			Hospital Range	National*	
		Prior	Current	% Change		Current	% Difference CA vs. US
CLABSI in ICUs and select wards (HAI-1)	↓	0.78	0.67	-14.7	0.00 - 3.91	0.68	-2.7
CAUTI in ICUs and select wards (HAI-2)	↓	0.95	0.87	-7.7	0.00 - 3.85	0.72	21.9
Colon Surgery SSI (HAI-3)	↓	0.97	0.86	-11.3	0.00 - 2.98	0.87	-0.8
Abdominal Hysterectomy SSI (HAI-4)	↓	0.97	0.79	-18.8	0.00 - 3.71	0.93	-14.8
MRSA Bloodstream Infections (HAI-5)	↓	0.76	0.73	-4.5	0.00 - 4.44	0.82	-11.1
<i>Clostridium difficile</i> Infections (HAI-6)	↓	0.68	0.60	-11.8	0.00 - 2.84	0.58	3.2
		Value change better or better than comparison (≥2%)		No clear change/difference (<2%)	Value change not better or not better than comparison (≥2%)		

Note. Data were retrieved from CMS Hospital Compare HAI files, which are updated quarterly in April, July, October, and December. The current file was updated 04/01/2021 and represents 4 quarters of data during each period ([link](#)). Time periods compared 01/18-12/18 (Prior) vs. 01/19-12/19 (Current). SSI = surgical site infections. *The national comparison SIRs are calculated based on all US hospitals for each time period shown, rather than assuming national SIRs of 1.0.

HAI: % Difference CA vs. US

What is California's biggest HAI challenge?

Healthcare-Associated Infection SIR Percentage Difference
California vs. National Re-Baseline: Jan 2015-Dec 2019 (Quarterly)^a



CAUTI?
Highest relative difference from US

CLABSI: Central line-associated bloodstream infections^b
CAUTI: Catheter-associated urinary tract infections^b
Colon SSI: Colon surgery Surgical Site Infections
Hyst SSI: Abdominal Hysterectomy Surgical Site Infections
MRSA: Methicillin-resistant *Staphylococcus aureus* infections^b
CDI: *Clostridium difficile* Infections

^aSource: CMS Hospital Compare HAI files. Percentages reflect the last CMS quarterly data release on 04/2021. Inconsistency in quarterly releases is due to re-baselining of all HAI rates to CY 2015.
^bData were not available for one or more quarters because they were suppressed by CMS.

HAIs: Numbers of Infections during Latest 4-Quarters ($N = 8,716$)

What is California's biggest HAI challenge?



CDI?

Highest number of actual infections is CDI: 52.8% of all HAIs

What's the answer the to “biggest HAI challenge” question?

- CAUTI (biggest difference from US rate) – Relative Effect
- CDI (highest actual number of infections) – Absolute Effect

Take Home Lessons

1. To be aware of the difference between relative and absolute effect sizes
 - **Ratios vs. Differences in risks/ratios**
2. To be able to identify instances of The Relative Effect Fallacy in quality data
 - **Relative effect sizes often look dramatic when incidence is low**
3. To understand how to use both relative and absolute effects to prioritize quality improvement
 - **Focus on absolute effects for the greatest marginal gains**
 - **Find a balance, but avoid chasing small numbers**

Suggestions for Focusing Quality Improvement Efforts

Given limited time & resources for improvement efforts:

1. Focus efforts towards absolute effects to gain the largest net improvement in quality/safety (greatest marginal improvement)
 - **Use standardized quality processes and implement proven interventions that impact ALL cases (e.g., drivers, mothers, HAIs, surgeries, etc.) where possible**
2. Balance relative effects & absolute effects for the most comprehensive approach
 - **Avoid Relative Effect Fallacy trap of chasing small numbers that are unlikely to move the overall quality picture, unless strongly warranted**
3. Of course other factors exist that should be considered too
 - **Payment penalties, systemwide priorities, etc.**

Questions & Discussion

Visit us at www.hqinstitute.org to learn more about:

- The Hospital Quality Improvement Platform
- Quality Transparency Dashboards
- CHPSO



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Closing Remarks



Mark Netherda, MD
*Associate Medical Director,
Partnership HealthPlan of California*

Mark Netherda, MD



Dr. Mark Netherda is a Board Certified Family Medicine physician. He spent the majority of his career providing family medicine and HIV specialty care in public health settings. He also spent several years providing in country support to the US CDC in Namibia, developing guidelines for the care and treatment HIV patients and helped develop a national training program and collection of clinics to deliver

comprehensive healthcare services to people in Namibia living with HIV/AIDS. He has been with PHC since 2015 and in his role as Associate Medical Director for Quality since 2018. He has 3 adult “kids” and lives with his wife, 2 dogs and 4 large tortoises in Santa Rosa.

Evaluation

WE NEED YOUR FEEDBACK

- Immediately following the Symposium you will receive an evaluation via Survey Monkey.
- Please complete the brief evaluation– your feedback is important to us.

CME/CE CREDITS

- If you wish to be considered for CME/CE credits, you will be able to enter your name, title and license number at the end of the evaluation.

NOTE: Application for CE credit has been filed with the California Board of Registered Nursing, Provider CEP16728 for (hours TBD) contact hours. Determination of credit is pending.

Application for CME credit has been filed with the American Academy of Family Physicians. Determination of credit is pending.

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