





Center for Health Care Data



Welcome!

- Today's room is sponsored by Rep. Ann Johnson. Thank you!
- About TX RPC
- New Health Policy Resources from the TX RPC
- Dr. Henry Brown
- Lee Spangler Improving Health Through Data





Funding provided by:







Texas Research-to-Policy Collaboration (TX RPC) Resources





Collaboration

Meetings





TX RPC Health Policy Reports

TX Child Health Status Reports







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Texas Health Policy Resources



KEY TAKEAWAYS

- 1. More than 60% of Texas 8th and 11th graders report spending more than 4 hours in front of a screen per day. Increased screen time has been associated with sedentary behaviors, and negative physical and mental health outcomes. 2. Despite some negative outcomes associated with screen time, social media networking has helped adolescents discuss and seek advice for mental health questions. Clinicians and researchers have also utilized digital tools to reach adolescent
- 3. Recommended policies to address screen time include helping teanagers balance the positive and negative effects of supporting research on how to best use technology to reduce health inequities and increase positive health outcomes



Teenagers are spending increased time online. Approximately 46% of U.S. teens say they are online almost constantly. (1-4)

has increased in recent years, with 95% of teens reporting owning or having access to a smartphone in 2022, compared to 73% of students from 2015-2016. (3)

There are concerns about how technology influences adolescent lives, including contribution to lower levels of physical activity, decreased interpersonal connection skills, and increased rates of depression and anxiety, (5-7)



· Body dissatisfaction has been linked to risk-ta

engaging in healthy behaviors. (9)

health problems, with poor body image also p



Approximately 46% of girls

 Approximately 40% of adolescents say that ima caused them to worry about their body image or · As adolescents develop their own definition media and other personal factors may cont feelings of depression, and the need to confi

always about their body image







Impact of Hydrogen Sulfide Emissions on Health Outcomes

1. Hydrogen sulfide is a gas that occurs in naturally and as a byproduct from petroleum or wastewater management 2. Lower levels of hydrogen sulfide exposure can occur in communities that live by refineries or wastewater treatment plants, but higher concentrations of hydrogen sulfide occur more often from exposure in the workplace.

What is Hydrogen Sulfide and Where Does it Come From? Hydrogen sulfide collects in low-lying, poorly ventilated, enclosed areas like basements sewer lines, underground telephone vaults, and manure pits. (1)

When emitted, it tends to smell like "rotten eggs," (1) Hydrogen sulfide is a colorless. flammable gas, making it extremely hazardous.

Hydrogen sulfide occurs naturally in crude petroleum, natural pases, and hot springs. waste (including sewage treatment plants) (1.3)

Hydrogen sulfide is a byproduct from petroleum or natural gas drilling and refining. ater treatment, coke ovens, tanneries, and kraft paper mills. (1)

A person can lose their ability to smell hydrogen sulfide gas, even when the gas is still present. DO NOT rely on your sense of smell to identify the presence of hydrogen sulfide

Effects of Hydrogen Sulfide:

Hydrogen sulfide has not been shown to cause cancer in people, (4)

Exposure levels of hydrogen sulfide are as follows

- Typical background levels in urban communities of hydrogen sulfide emissions are from 0.11 to 0.33 parts per billion (ppb). (1,3) Hydrogen sulfide can be detected by smell at 0.01-1.5 ppm (5)
- Permissible exposure limit of hydrogen sulfide is 20 ppm and should not exceed this exposure limit during an 8 hour timeframe. (6) Prolonged exposure over several hours to levels as low as 2ppm may begin to produce
- High concentrations of hydrogen sulfide exposures, which are immediately life-threatening, are considered to

Children and adults living in areas with a higher concentration of sulfur compounds are more likely to report headaches

Additionally, there was an increase in reports of respiratory symptoms among people living in high-exposure

areas compared to those living in low-exposure areas. (3)





Paid Family Leave and Maternal & Infant Outcomes

Background

Enacted in 1993, the Family and Medical Leave Act (FMLA) is a federa policy implemented to support parental and family leave within the United States. The FMLA allows for 12 weeks of unpaid, job-protected leave to qualified workers with continuous health insurance coverage following the birth, adoption, or placement of a foster child. With Paid Family Leave (PFL), parents and infants have adequate time to receive postpartum medical care. Approximately 56% of workers in the U.S. qualify for FMLA, which excludes many parents who may earn lower and do not have the ability to take time off of work. (1-3)



TIM

Whom Does FMLA Impact?

FMLA and PFL primarily benefit higher-income individuals. (1) Since the FMLA only assists by to take time off because they will lose wages in order to take care of a child. (1

amily Leave & Maternal and Child Wellbeing

*FL improves mothers' mental health by decreasing postpartum psychological distr
• Mothers are 9% more likely to report positive mental health and 5% more likely to day-to-day demands of parenting. (5)
FL improves both mother's and fathers' health by decreasing their risk of being of

% and decreasing their consumption of alcohol by an average of 12% (6) %E fosters better child-parent relationships by allowing parents time to bond ositive caregiving skills, which leads to mothers spending more time with their balt neals together, or going on outings more frequently. (7-8) *FL improves child health and development:

- Increases the likelihood of initiating breastfeeding, which builds stronger immunity, reduces infections, and reduces infant
- . Reduces the likelihood of low birthweight and preterm births
- Decreases the likelihood of re-hospitalization within the first year of life by almost half (47%), (13)
- . Increases timely immunizations and well-child visits for the
- Reduces rates of physical abuse in children below age 2. (15) Reduces the likelihood of asthma, overweight, Attention Deficit/Hyperactivity Disorder (ADHD), and communication delays through elementary school. (16-17)



Maternal & **Child Health**

KEY TAKEAWAYS

- 1. The quality of a mother's health before, during, and after pregnancy has lifelon being of both mother and baby.
- 2. The maternal mortality crisis is compounded in Texas by the number of maternit 3. The best approach for preventing maternal death is ensuring adequate health after pregnancy
- 4. Midwives, doulas, home-visiting nurses, and community health workers car workforce especially in rural communities
- 5. Ensuring adequate and timely data collection and analysis of state maternal an

The quality of a mother's pregnancy determines the well-being of her infant and is also the time when the foundations of a child's lifelong health are built, (1) · Prenatal experiences like maternal malnutrition, elevated levels of

stress hormones, or exposure to toxins are linked to disease outcomes later in life through: (a) physiologic changes that can impact either the developing fetus directly or (b) the health of the mother, which in turn affects fetal development, (2.3)

Pregnancy can also impact the health of the mother beyond the birth of her child.

- · Some women will develop medical issues like pre-eclampsia or gestational diabetes during pregnancy. (4) These issues can lead to long-lasting impacts.
- Women with these conditions see higher lifetong risks for cardiovascular disease, type 2 diabetes, and stroke. (5)
- Pre-eclampsia, a serious form of high blood pressure during pregnancy, is linked to hemorrhaging, one of Texas's leading causes of pregnancy-associated deaths (6.7)

The maternal mortality crisis in the U.S. is well documented

 The most recent data published in 2022 by the National Center for Health Statistics show 23.8 maternal deaths for every 100,000 live births in 2020, up 36% in just two years from 17.4 per 100.000 in 2018. (8)

women in the U.S. are almost three times as likely to die from pregnance





KEY TAKEAWAYS

- 1. Doulas can provide support and serve as a liaison between pregn
- 3. Nine states and the District of Columbia currently cover pren services for women enrolled in Medicaid.
- 4. Pilot programs in Texas testing the effectiveness of doula-Me pregnancy and delivery.

What are Doulas? What do they do?

Doulas are non-clinical health professionals who provide physical, emo families before, during, and after labor and delivery. (1, 2) Doulas do not

OVE

Benefits of Receiving Doula Services

Having the extra support from a doula through pregnancy can prevent t

- Shortened labor times Fewer low birthweight ba
- · Lower use of epidurals Lower rates of cesarean births
- · Lower odds of postpartum depression
- Higher breastfeeding init





Building Responsible and Resilient Youth

What is the problem? 1-3



manipulation, and rumor-spreading, are more likely to have emotional outbursts, be

This can lead to a cycle, as students who exhibit frequent outbursts, anger, and spiraling emotions are more likely targets for bullies. In other words, bullying leads to e dysregulation which triggers further bullying.

nental health and overall well-being? Programs that incorporate Social-Emotional Learning (SEL) can help to develop responsible and resilient youth.



Social-Emotional Learning 4-7

outcomes, develop empathy for others, recognize supportive relationships, and engage in responsible decision-

SEL also teaches children about civility and citizenship. Asking students how they think they want to be treated and comparing it to how they should and should not treat others is similar to The Golden Rule

The Golden Rule: Treat others the way you would like to be treated without expecting the same kindness back

Helpful ways to learn to manage emotions



students to grab a drink of water



 Playing games that encourage mindfulness and movement activities, such as the <u>Calm</u> ann or GoNoodle com



help students learn what is making them sad or angre























Rapid Request Responses

- Legislators complete the <u>Rapid Response</u> <u>Form</u>
- TX RPC Project team will conduct research and prepare report based on requested topic
 - Reports reviewed by TX RPC researchers, UTHealth Government Relations
- Provide requested information to legislator

College Students and SNAP Utilization

Student Demographics [1]

Most of roday's college and other post-secondary students, about 71%, are considered "non-traditional" students. They may be financially independent from their parents, work full time, are enrolled part-time, are careakers, or do not have a traditional high school dipioma. The average age of college enrollment is 21, but 26 is the average age for all college students. More than one in five (22%) college students reponted being parents or caring for a child dependent, with 14% stating they are single parents.

Food Insecurity Impacts Education [1-3]

According to a 2020 survey, more than a fifth of research university students (22%) reponted food insecurity. Students who are under 21 are less likely to report food insecurity, but students over 30 are more likely to be hungry. Despite these high rates of food insecurity, even before COVID-19, while more than one in six (18%) college students were eligible, only 3% of college students were receiving Supplemental Nutrition Assistance Program (SNAP) benefits.

In a 2016 study

- Nearly a third (32%) of food insecure students believed hunger impacted their education
- More than half (55%) reported that hunger kept them from buying textbooks
- A quarter (25%) of students who reponed food insecurity also reponed dropping a class.
- More than half (53%) of students reported missing class in 2016 due to hunger

The Policy Landscape [4]

In December 2020, the US House passed the Consolidated Appropriations Act (CAA). This act carved out an exception for higher education students errolled at more than half time, who were previously ineligible to receive Supplemental Nutrition Assistance Program (SNAP) benefits if they mer centain offsets: They must be eligible for Federal Work Study and have an expected family contribution of \$0. This exception will be in effect through the end of the declared COVID-19 Public Health Emergency (PHE), which is currently set to end on October 13, 2022, though it has been extended multiple times.

[5-8]

Summary of Search Results

Based on a preliminary search for legislation related to college students and SNAP, the TX RPC project team identified four states that have proposed or passed relevant legislation. Three states (Louislana, Connecticut, and California) enacted laws related to this issue. One state (West Virginia) had Senate and House companion bills that appear to have stalled in committee.

It is important to note that no states have made the exception permanent because the rules about SNAP eligibility and college enrollment are set at the federal level and cannot be expanded at the state level.











Cost-Effectiveness of PRSS and Bystander Naloxone: Analysis and a Pilot Calculator

April 2023

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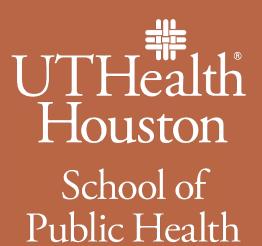
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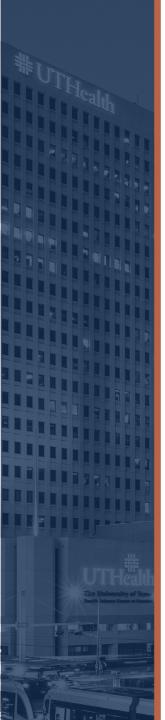
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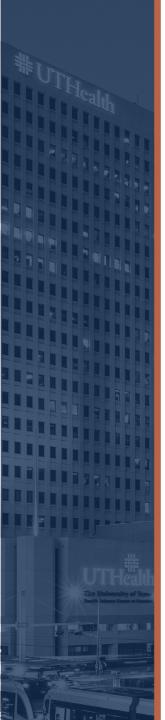
Funding from NIDA R24DA051988 Recovery Research Institute Pilot Grant



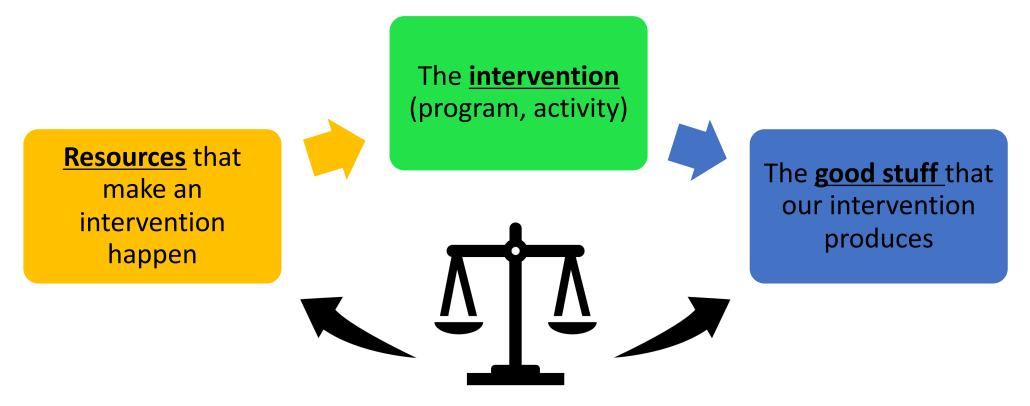


Background

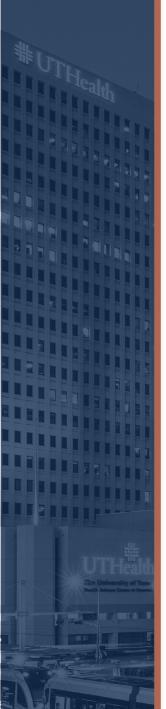
- Our ultimate goal:
 - A free, web-based multi-faceted cost-effectiveness calculator that:
 - Empowers stakeholders (RCOs, advocates, community decision-makers) to use cost-effectiveness information
 - Increases support for existing programs, build support for the adoption of programs
- Texas is poised to get \$1.46 in Opioid Settlement Funds according to the Opioid Settlement Tracker
 - How to advocate for those funds and apply them most effectively



What is Cost-Effectiveness Analysis?



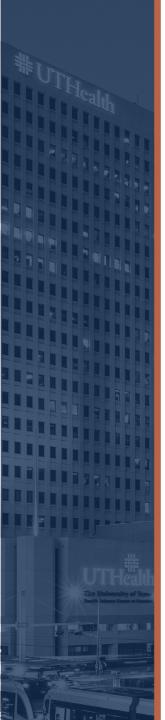
How balanced are resources to good stuff (and it is fine if good stuff outweighs resources used)?



Cost of Intervention—Cost of Treatment as Usual Intervention Effect—Treatment as Usual Effect

 The result is called an Incremental Cost-Effectiveness Ratio (ICER) and represents the cost of the intervention per unit of good stuff produced.

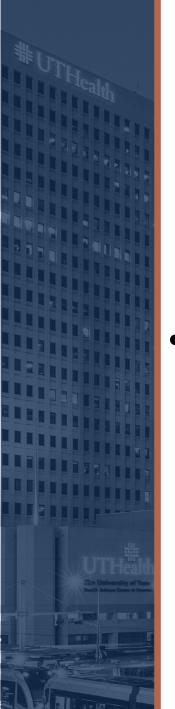
Let's look at an everyday example!



Grocery store metaphor:

- Compare sticker prices, but packaging or product is not identical, so we can compare price per ounce (or other unit), instead.
- Or for the exact same product and brand, but different sizes (economies of scale)





 $\frac{Cost\ of\ Intervention-Cost\ of\ Treatment\ as\ Usual}{Intervention\ Effect-Treatment\ as\ Usual\ Effect} = ICER$

Interpreting ICER (the result)

 If ICER is less than the willingness to pay threshold, then it is cost-effective!

"Easier to pass"

"Harder to pass"

\$200,000 threshold \$100,000 threshold \$50,000 threshold Smaller, more meaningful threshold (e.g. cost of treatment episode)

$\frac{Cost \ of \ Intervention-Cost \ of \ Treatment \ as \ Usual}{Intervention \ Effect-Treatment \ as \ Usual \ Effect} = ICER$

Interpreting ICER (the result)

Cost-effective to whatever threshold the number falls below

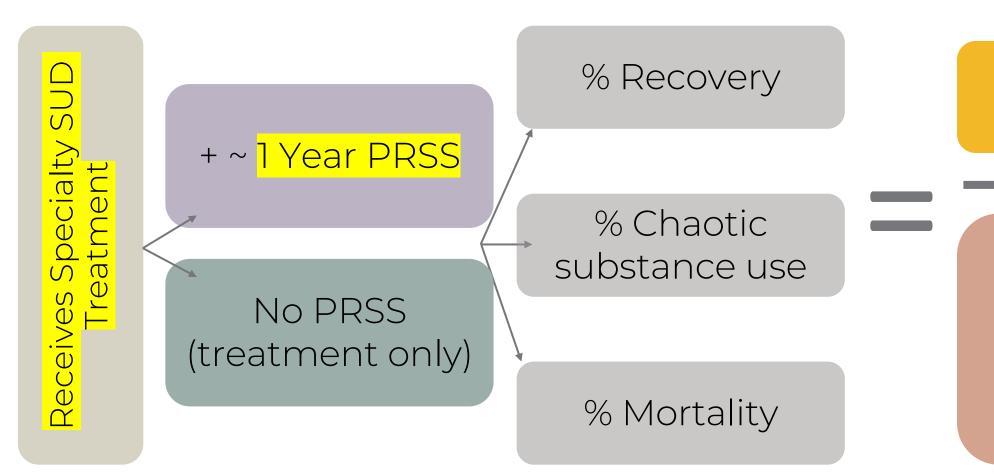
Cost-saving AND cost-effective

\$200,000 threshold \$100,000 threshold \$50,000 threshold Smaller, more meaningful threshold (e.g. cost of treatment episode)

Below zero
(because costs are less, but effects are better)

PRSS Model

<u>Cost of Intervention—Cost of Treatment as Usual</u> = <u>Intervention Effect—Treatment as Usual Effect</u> Incremental Cost-Effectiveness Ratio



Differences in Costs

Discounted differences in QALYs, or # in recovery at 3 years

15

Key Take-Aways

- PRSS are cost-effective across wide variety of circumstances
- One-way sensitivity analysis reveals peer worker pay and service utilization has less effect on cost-effectiveness than factors like PRSS effectiveness and retention.
 - Impact efficiency through program improvement not through depressing wages or limiting service utilization.

Full results, tables of parameters, and formulas here:

https://bit.ly/SCM12023



Bystander Naloxone Distribution Model

Cost of Intervention—Cost of Treatment as Usual

Intervention Effect-Treatment as Usual Effect

Incremental Cost-Effectiveness Ratio

Experiences an opioid overdose

A bystander gives naloxone they got from your RCO*

% Survives overdose

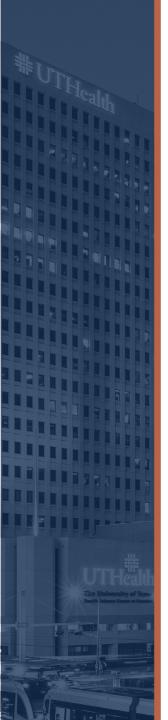
Differences in Costs

EMS gives naloxone

% Mortality

Discounted
differences in
QALYs, or # who
survive the
overdose

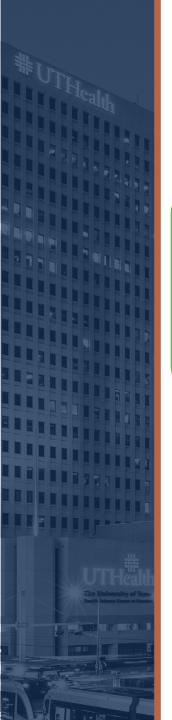
*Model includes probabilities of several factors, including presence of naloxone, administration of naloxone, EMS transport, etc.



Let's look at the calculator!

https://go.uth.edu/cea





Additional feedback or questions?

Please take our feedback survey! https://redcap.link/calculator



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School of Public Health

Center for Health Care Data



"IMPROVING HEALTH THROUGH DATA"

TX-APCD: A New Resource for Advancing Public Health and Transparency



What is an All Payor Claims Database?

- An All Payor Claims Database is exactly what is sounds like...
 - A database that collects medical, dental, and pharmacy claims from "all" payors in a state.
 - The claims are obtained using a standardized format the Common Data Layout.
 - The claims are then organized into a researcher accessible format and database.
- This is to aid in providing a comprehensive view of health care utilization, payments, and quality across the entire health care system.
- APCDs began to gain traction in the 1990s with a few states in New England implementing their own versions. Since then almost 25 states (including Texas) have established APCDs. Some states have two (one voluntary, the second mandatory) although there is not likely any advantage to having two APCDs.



APCD Benefits

Transparency: The TX-APCD provides transparency in health care costs and utilization, which can help patients and providers to make better about their health care.

Quality Improvement: The TX-APCD can be used to track the performance of health care providers and systems, **in** the aggregate, which can help identify opportunities for quality improvement.

Research: The TX-APCD is a valuable resource for researchers to study health care trends and patterns, as well as evaluate the effectiveness of health care interventions.

Public Health: The TX-APCD can provide disease prevalence and incidence awareness to help identify potential health threats to Texans and track the spread of infectious diseases.

Policy Making: The data from the TX-APCD can be used to inform health policy decisions and help to identify areas of the health care system that may require additional resources or attention.



ERISA Plans and APCDs

- Fully Self-funded ERISA Plans are exempted from submitting claims nationwide.
 - ERISA is a federal law that regulates employer sponsored benefit plans. ERISA health plans are typically "self-funded" which means they pay for the health services directly and do not buy insurance policies for that purpose. There is a very strong federal preemption provision in ERISA.
- Gobeille v Liberty Mutual Insurance Company
 - 6 -2 SCOTUS decision.
 - Liberty Mutual argued that Vermont's APCD submission mandate interfered in its ability to administer benefits uniformly across the nation. Vermont argued that as a state they had authority over health and welfare of its citizens.
 - SCOTUS agreed with Liberty Mutual and that the submission requirements were not a traditional form
 of state regulation, but instead was regulating the administration of ERISA plans. Thus, states can not
 mandate the submission of claims to APCDs.



Which plans are required to submit in Texas?

Medical plans

Dental plans

Behavioral Health plans

Medicare Advantage plans

Medicare Supplemental plans (voluntary)

Non-ERISA self funded plans

County and Municipal Sponsored Plans

State Plans

Managed Care Organizations/HHSC (Medicaid)

[Medicare available through CHCD]

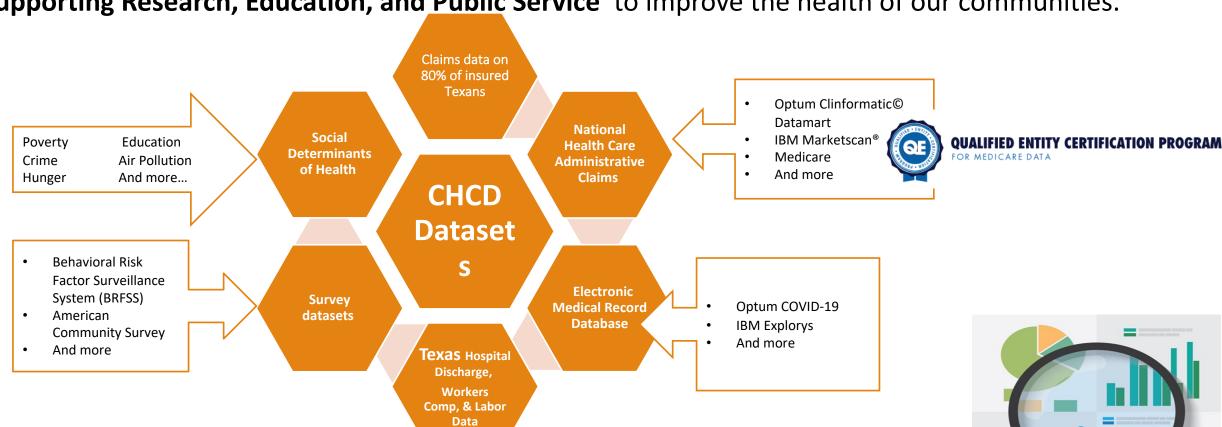
UTHealth Center for Health Care Data (CHCD)

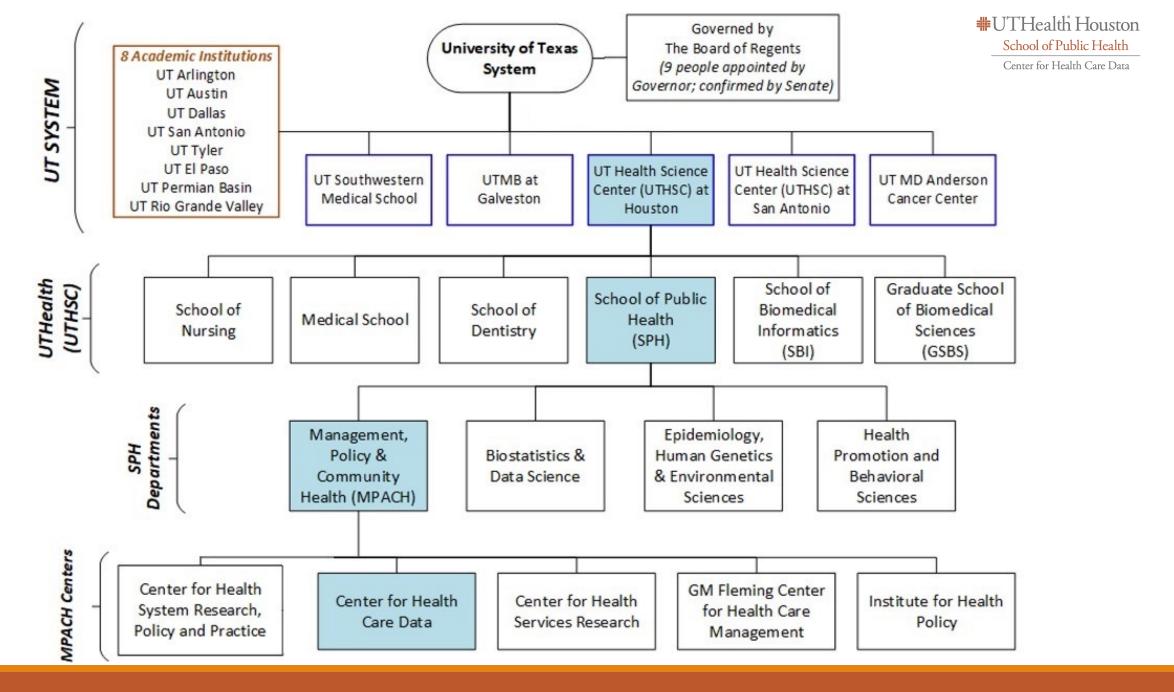


Largest, research accessible, healthcare data repository in Texas

Applying expertise in analytics, clinical medicine, public health, management, and public policy &

Supporting Research, Education, and Public Service to improve the health of our communities.







Purpose and Protection

- Legislative Purpose:
 - Controlling health care costs and improving affordability
 - Improving Population Health
 - Improving Health Care Quality and Outcomes
 - Increasing transparency of costs, utilization, and access
 - Establishes the TX-APCD

#UTHealth Houston
School of Public Health
Center for Health Care Data

What data FILES must payors submit?

Enrollment data file identifying data about a person who receives health care coverage from a payor.

Provider file information about the individuals and entities that submitted claims that are included in the medical or dental claims file;

Medical claims file medical claims and other encounter information.

Pharmacy file data about prescription medications and claims filed by pharmacies and retail dispensaries.

Dental claims file dental claims and other encounter information.

These are not medical or dental records! They are claims for payment.



Purpose and Protection of APCD

- ➤ Reporting/Research must be for "non-commercial" purposes
- Research must conform to data privacy and security requirements
- Some PHI identifiers are segregated.
 - Accessible Databases do not contain fully identifiable information
 - > Identifiable information must be maintained separately.
 - Research is performed by CHCD & Qualified Research Entities
 - ➤ Public Interest Research Organization (501(c)(3))
 - ► Institution of Higher Learning
 - ➤ Health Care Provider engaged in improving the quality and cost of health care.

Required Activities



Monitor integrity of data submitted

Test the quality of data reported to the center "to ensure that the data is accurate, reliable, and complete."

Report to the Legislature

- > Analysis of the data submitted to the database
- > Information regarding the submission of data to the center
- Recommendations from the center to further improve the transparency, cost-effectiveness, accessibility, and quality of healthcare
- Analysis of the trends of health care affordability, availability, quality and utilization.

Portal for the Public (Establish and Maintain)

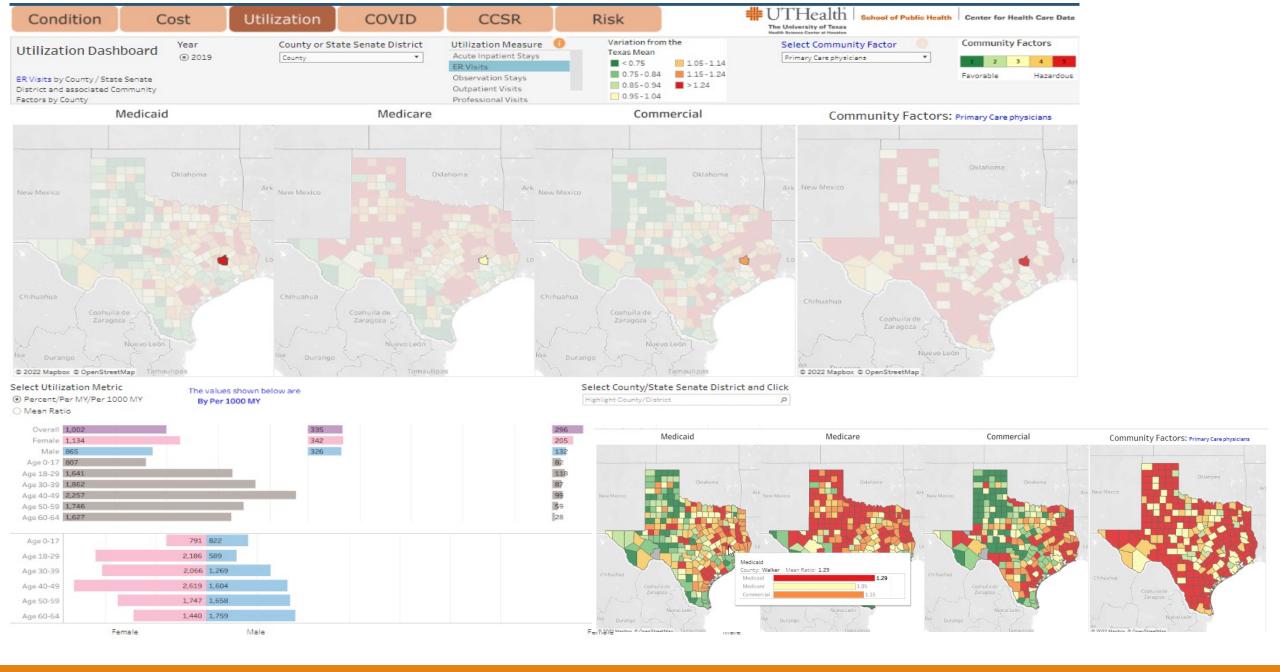
- ➤ May not identify patients, providers, plan issuer or other payor. Aggregate not specific.
- > Statewide, regional and zip code reports on:

Cost Quality

Utilization Outcomes

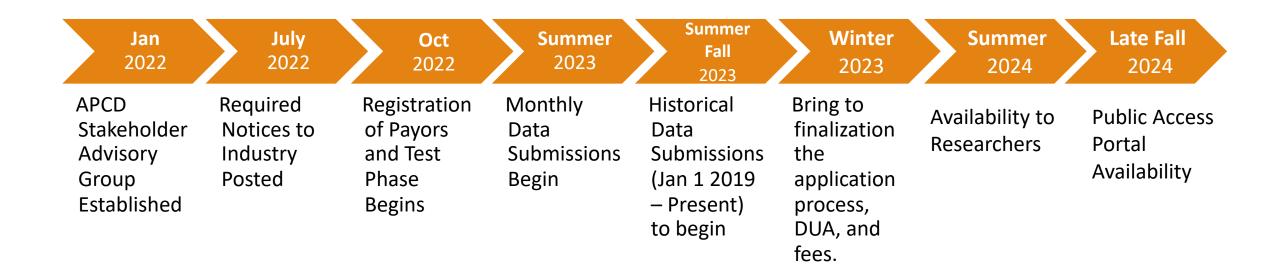
Disparities Population health

Access to healthcare





Milestones and Roadmap











Questions?



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Thank you!



