

Steering Committee Members



The Steering Committee is made up of scientists, clinicians, RCC leadership and persons with lived experience from multiple organizations and institutions from across the US.

Principal Investigators:



John F.
Kelly



Bettina B.
Hoepfner



Robert D.
Ashford



Patty
McCarthy



Julia
Ojeda



Philip
Rutherford



Brandon
G.
Bergman



Lauren A.
Hoffman



Vinod
Rao



Amy A.
Mericle

Our R24 Main Initiatives

1. **Monthly seminar series** every first Friday of the month

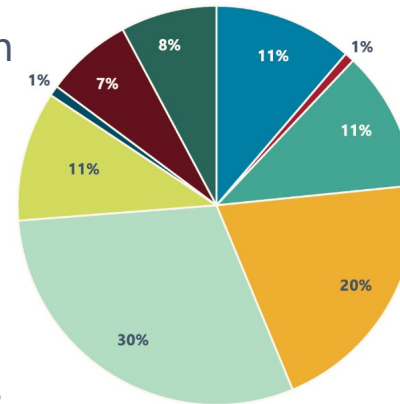
- Bring multiple stakeholders together
- You can view previous slides and recordings here: <https://www.recoveryanswers.org/addiction-research-summaries/seminar-series/>

2. **Pilot study funding**

- Bringing together academic and community teams
- Next deadline for applications: April 1st and October 1st, 2023
- Examples of currently funded projects: <http://www.recoveryanswers.org/assets/Seminar-12-Presentation.pdf>

3. **Repository of Scales**

- Making it easy to find measures that fit your RCC research need <https://www.recoveryanswers.org/addiction-research-summaries/repository-useful-scales/>



- Healthcare decision maker (e.g., hospital leadership, department of health, etc.)
- Prescriber (of medications for OUD)
- Clinician
- Scientist
- RCC leader / staff
- Peer support worker / volunteer
- RCC participant
- Recovery advocate
- None of the above



RECOVERY BULLETIN



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Upcoming Seminars

- The role a state's department of public health can play in the creation and thriving of RCCs
 - Friday, March 3rd, 2023 at 12PM ET
 - Presenter: Ms. Danielle O'Brien of the Bureau of Substance Addiction Services, Massachusetts Department of Public Health (DPH)
 - RCC Live Feature: Angela Burton of the [Detroit Recovery Project](#)
 - **Register here:** <https://partners.zoom.us/meeting/register/tZwsdO6vqTMiH9Bi3D3o3DogeniaLcJY-oR0>
- Outcome presentation for pilot project #2 : Feedback on a mobile application intervention to support pregnant and postpartum women and people (PPWP) in recovery
 - Friday, April 7th, 2023 at 12PM ET
 - Presenters: Drs. Hannah S. Szlyk and Patricia Cavazos-Rehg (Washington University School of Medicine in St. Louis)
 - Discussants: Dr. Davida Schiff (Massachusetts General Hospital), Dr. Roger Vilardaga (Duke University), Pastor Marsha Hourd (Director of [CAFE](#) & [LIFE Recovery Center](#)) and Ty Bechel (Executive director of [Amare Recovery](#))
 - **Register here:** https://partners.zoom.us/meeting/register/tZYkd-qsqDMuHNNFerkGN0Kqu1XvdFbx_QkP



Polling Questions



A pop-up Zoom window will appear with the poll questions



You must complete all questions before clicking to submit

---> Remember to scroll down to see all the questions!



We will share the poll results after a few minutes



Your responses will remain anonymous





RCC Live Feature



We are featuring a different RCC at the start of each of our seminars in order to allow all participants to learn first-hand about RCCs



Anita Bradley
Northern Ohio Recovery Association
President and CEO



<https://norainc.org/>

Located in: Cleveland, OH

Presenters



Dr. H. Shelton Brown
Associate professor
University of Texas School of Public
Health



Sierra Castedo de Martell, MPH
Doctoral Candidate
University of Texas School of Public Health



Margaret (Marnie) Moore
Doctoral Candidate
University of Texas School of Public Health

Cost-effectiveness calculators for RCCs: A pilot of peer recovery support services and bystander naloxone distribution

Recovery Research Institute Seminar Series: February 3, 2023

Sierra Castedo de Martell, MPH, Doctoral Candidate,
Sierra.J.CastedodeMartell@uth.tmc.edu

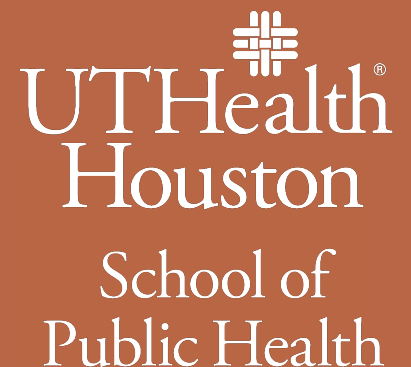
Margaret Brannon Moore, JD, LLM, MPH, Doctoral Candidate,
Margaret.B.Moore@uth.tmc.edu

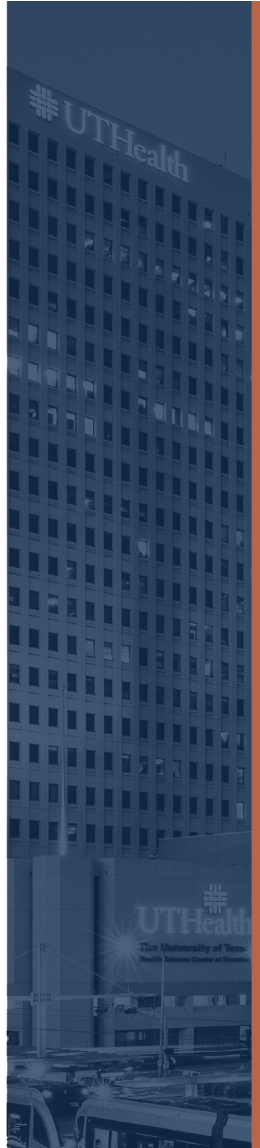
Hannah Wang, PhD, Programmer Analyst IV, Information Technology

H. Shelton Brown, III, PhD, Associate Professor and PI,

The University of Texas Health Science Center at Houston, School of Public Health

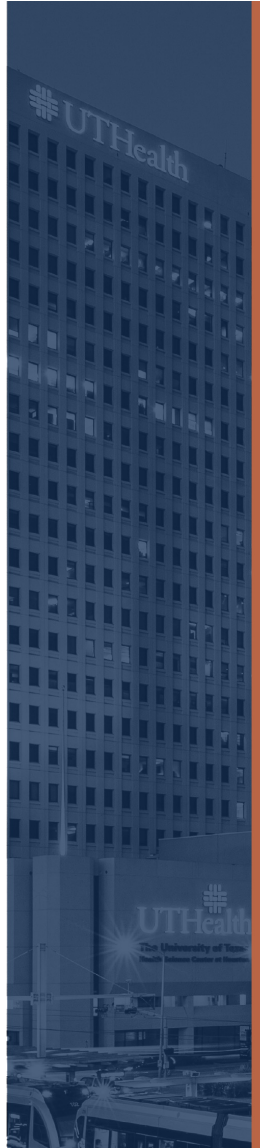
Funding from NIDA R24DA051988 Recovery Research Institute Pilot Grant





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- Peek at the calculator
- Future directions



Background

- Our ultimate goal: a tool for communities and organizations
 - A free, web-based multi-faceted cost-effectiveness calculator that:
 - Empowers stakeholders to use cost-effectiveness information
 - Increases support for existing programs, build support for the adoption of programs
- Fill in the knowledge gaps – very little economic evaluation research on peer-driven SUD interventions.

A vertical photograph of a multi-story building with a grid of windows. The word "UTHealth" is visible on the building's facade. The image is partially obscured by a dark blue vertical bar on the left side of the slide.

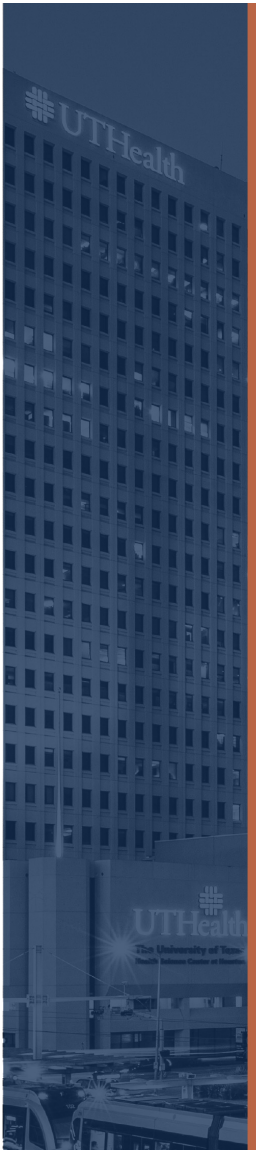
Background

- Lots of work to do!
- Collegiate recovery program calculator [here](#)
- Pilot funding to make today's calculator (NIDA R24DA051988 Recovery Research Institute Pilot Grant)
 - Peer recovery support services (PRSS)
 - Bystander naloxone distribution (Coffin & Sullivan, 2013)
- + Future work to build out more pieces of the calculator, publication and dissemination, and test potential impacts.

What is Cost-Effectiveness Analysis?

Longer tutorial available on the calculator site

web.sph.uth.edu/cea/



A vertical photograph of a multi-story building with a grid of windows, likely a hospital or university building. The 'UTHealth' logo is visible at the top and bottom of the image.

What is Cost-Effectiveness Analysis?

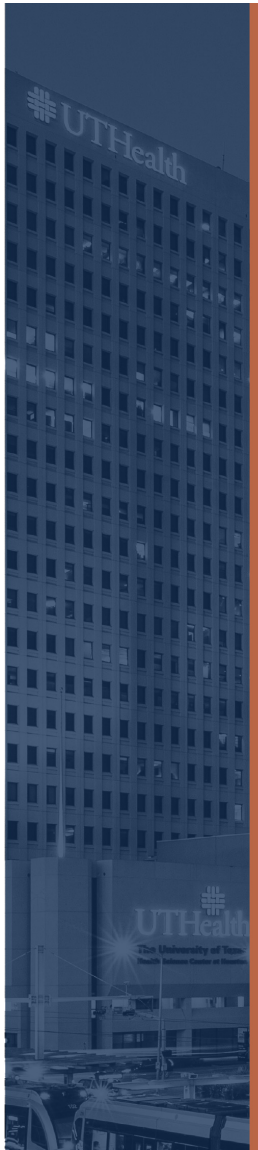
The intervention
(program, activity)

What is Cost-Effectiveness Analysis?

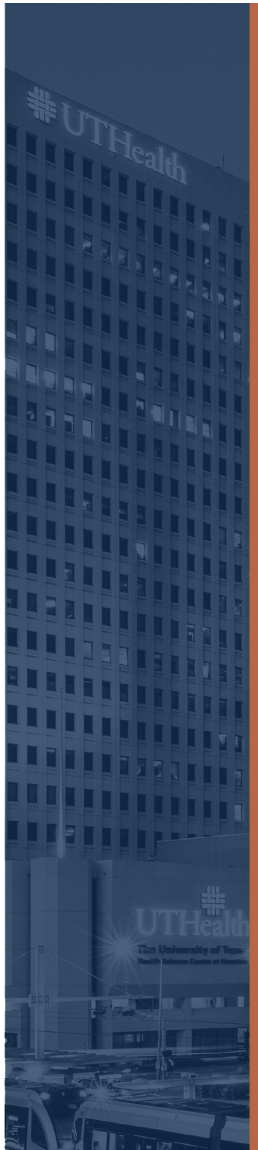
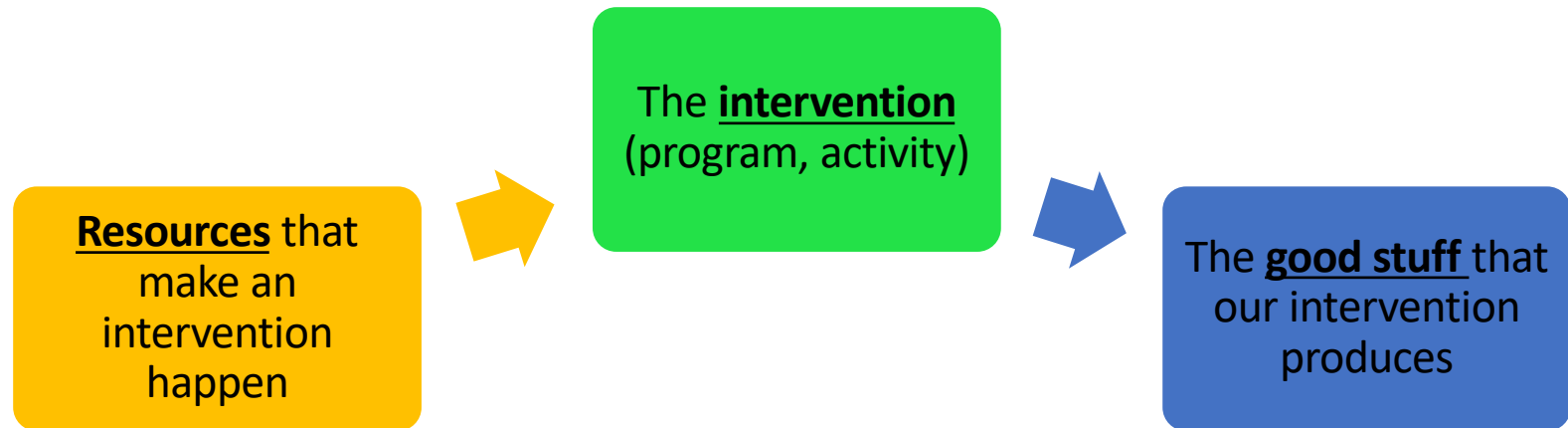
Resources that
make an
intervention
happen



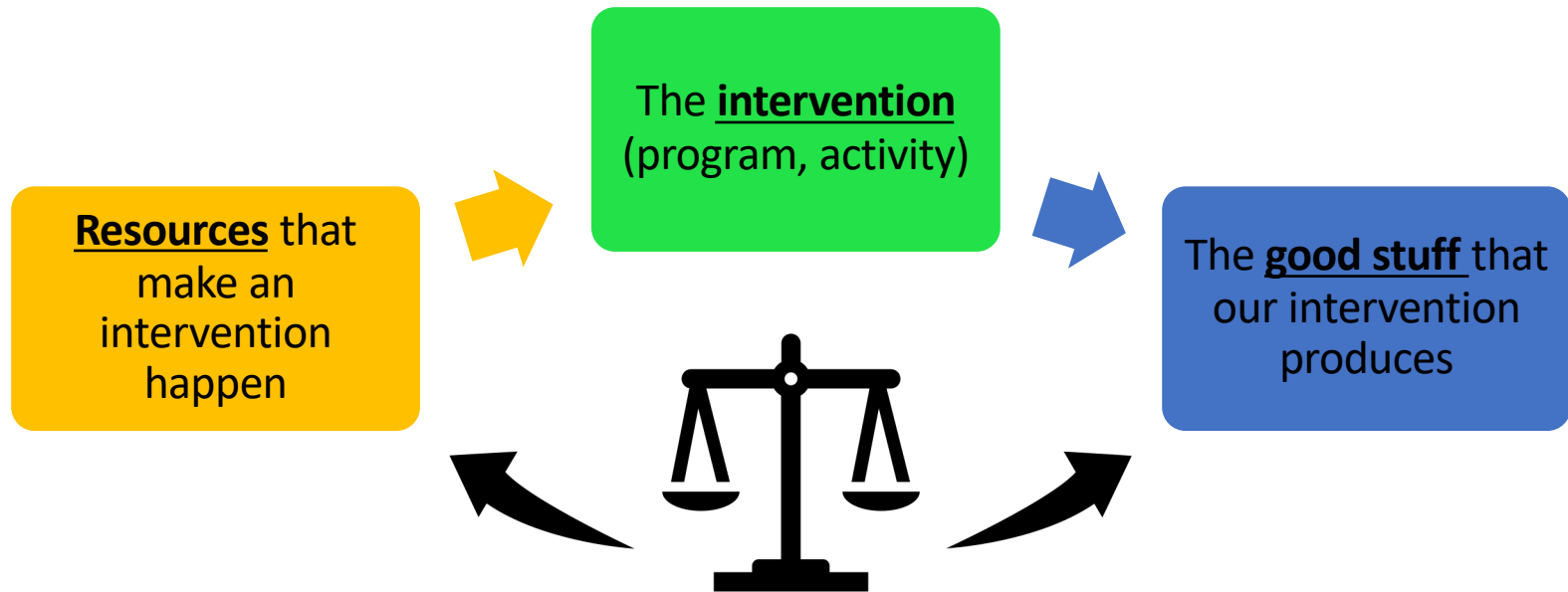
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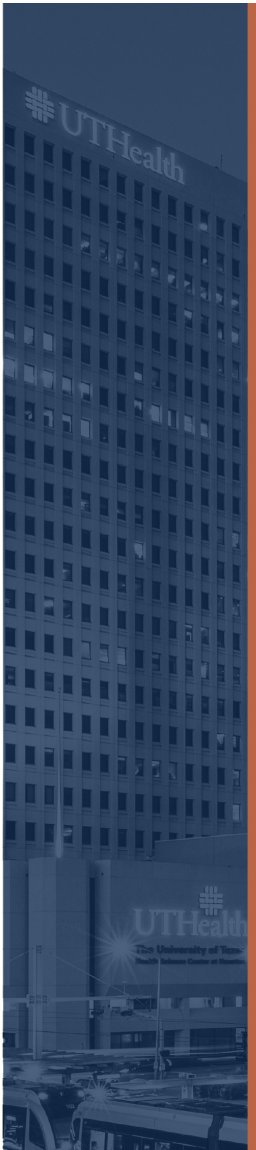
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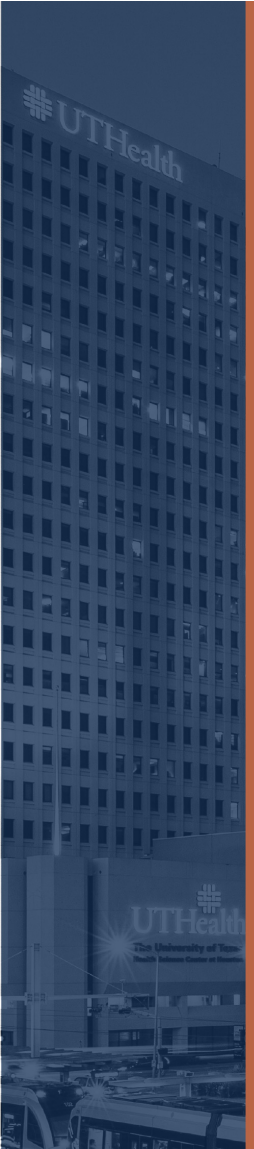


What is Cost-Effectiveness Analysis?



How balanced are resources to good stuff?

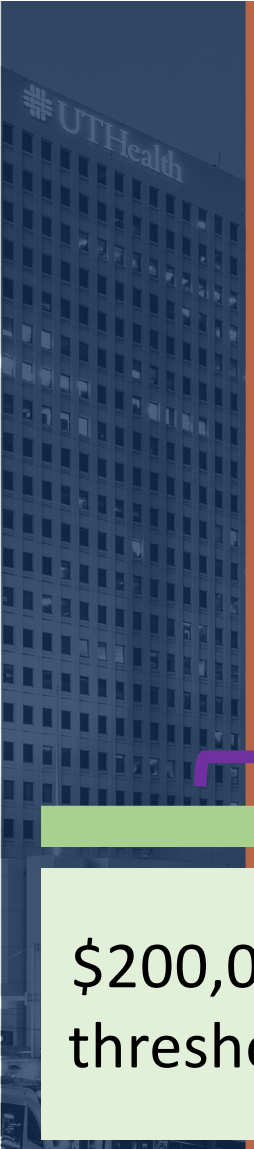



$$\frac{\textit{Cost of Intervention} - \textit{Cost of Treatment as Usual}}{\textit{Intervention Effect} - \textit{Treatment as Usual Effect}} = \text{ICER}$$

Incremental Cost-
Effectiveness
Ratio

- **Costs:**
 - All \$\$\$
 - Societal and health system perspectives
- **Effects:**
 - No \$\$\$
 - QALY and ideally something meaningful (people in recovery)

So we will have at least 2 ICERs, maybe 4


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

Interpreting ICER (the result)

Willingness-to-pay thresholds

Cost-effective to whatever threshold the number falls below

Cost-saving AND cost-effective

\$200,000
threshold

\$100,000
threshold

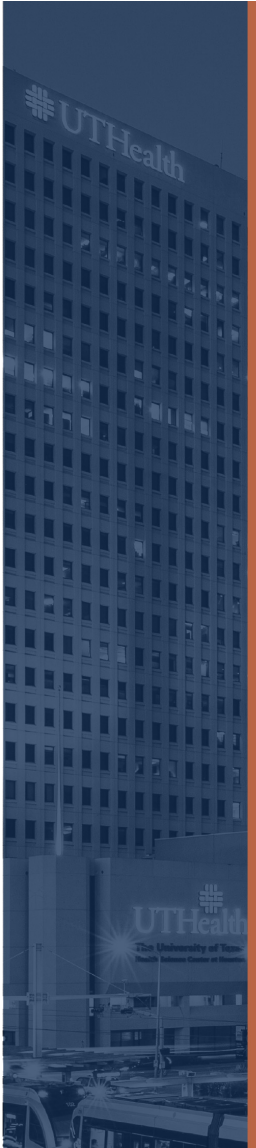
\$50,000
threshold

Smaller, more
meaningful
threshold (e.g.
cost of treatment
episode)

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

Longer tutorial and slides with detailed notes available in the “Tutorial and Resources” tab on the calculator site:

web.sph.uth.edu/cea/



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Outline for Today

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- Aims:

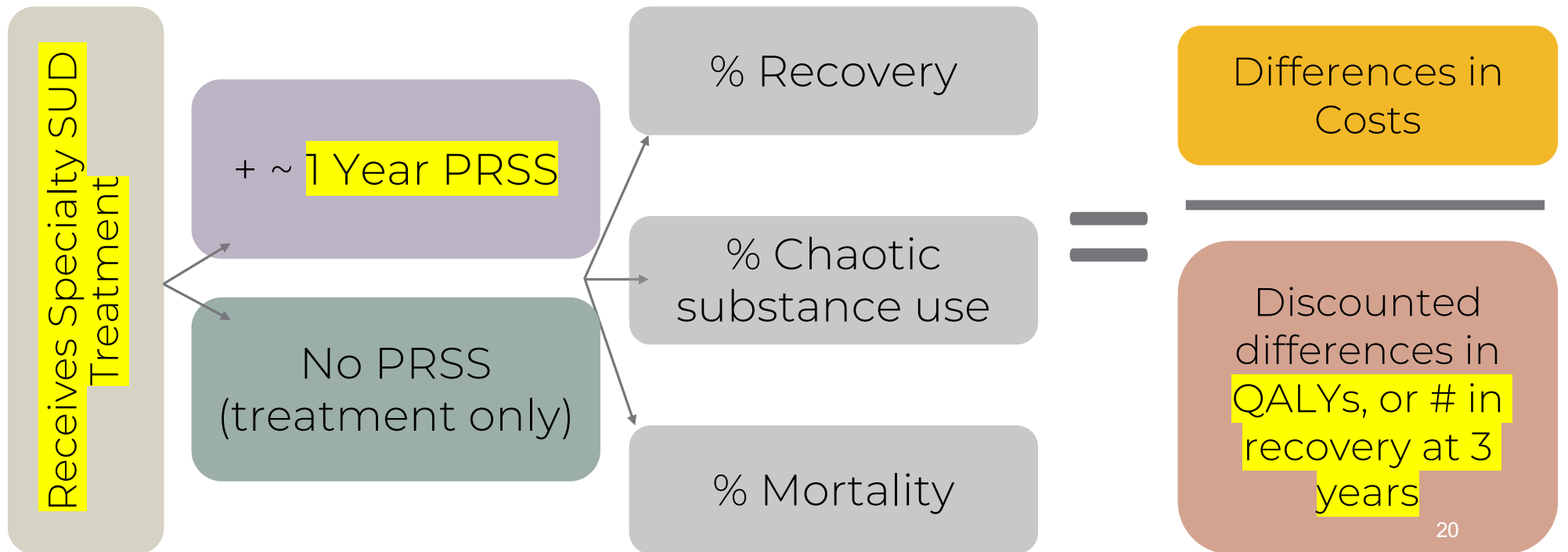
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- Peek at the calculator

- Future directions

PRSS Model

$$\frac{\text{Cost of Intervention} - \text{Cost of Treatment as Usual}}{\text{Intervention Effect} - \text{Treatment as Usual Effect}} = \text{Incremental Cost-Effectiveness Ratio}$$



Results: Base Case

PRSS Effects

571,927
or 2.25% more QALYs
than treatment only

319,404
or 40.75% more
people in recovery
than treatment only

Health System
Perspective

Cost-effective
to all thresholds

\$5,898.60 per
QALY

\$10,562.08 per
person in
recovery

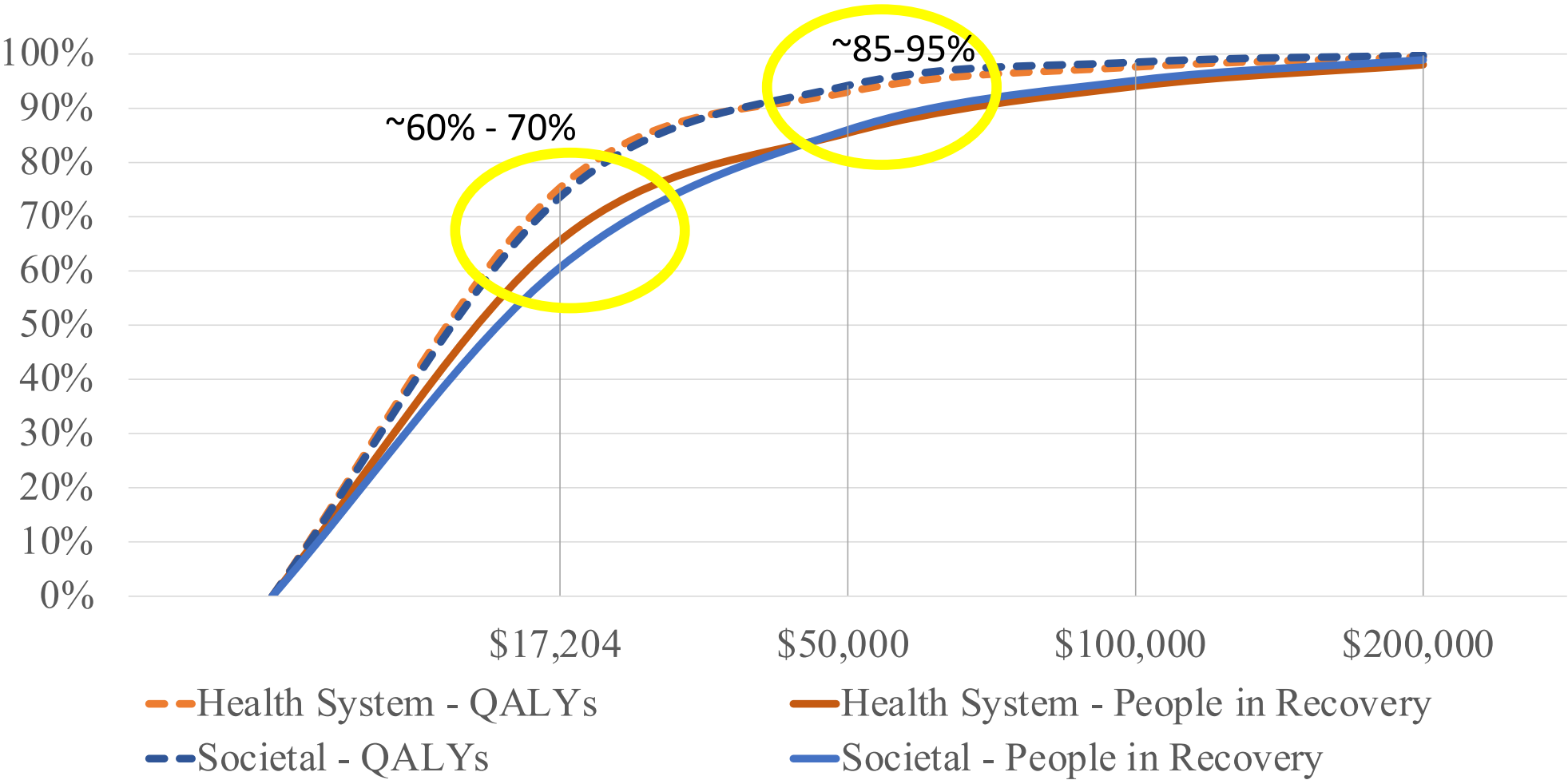
Societal
Perspective

Cost-effective
to all thresholds

\$3,421.58 per
QALY

\$6,126.72 per
person in
recovery

Results: Probabilistic Sensitivity Analysis



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.

<https://bit.ly/SCM12023>



A vertical image on the left side of the slide shows a multi-story building with the 'UTHealth' logo at the top. The building is dark with many windows, and the logo is in white. A red arrow points from the building towards the second bullet point of the 'Aims' section.

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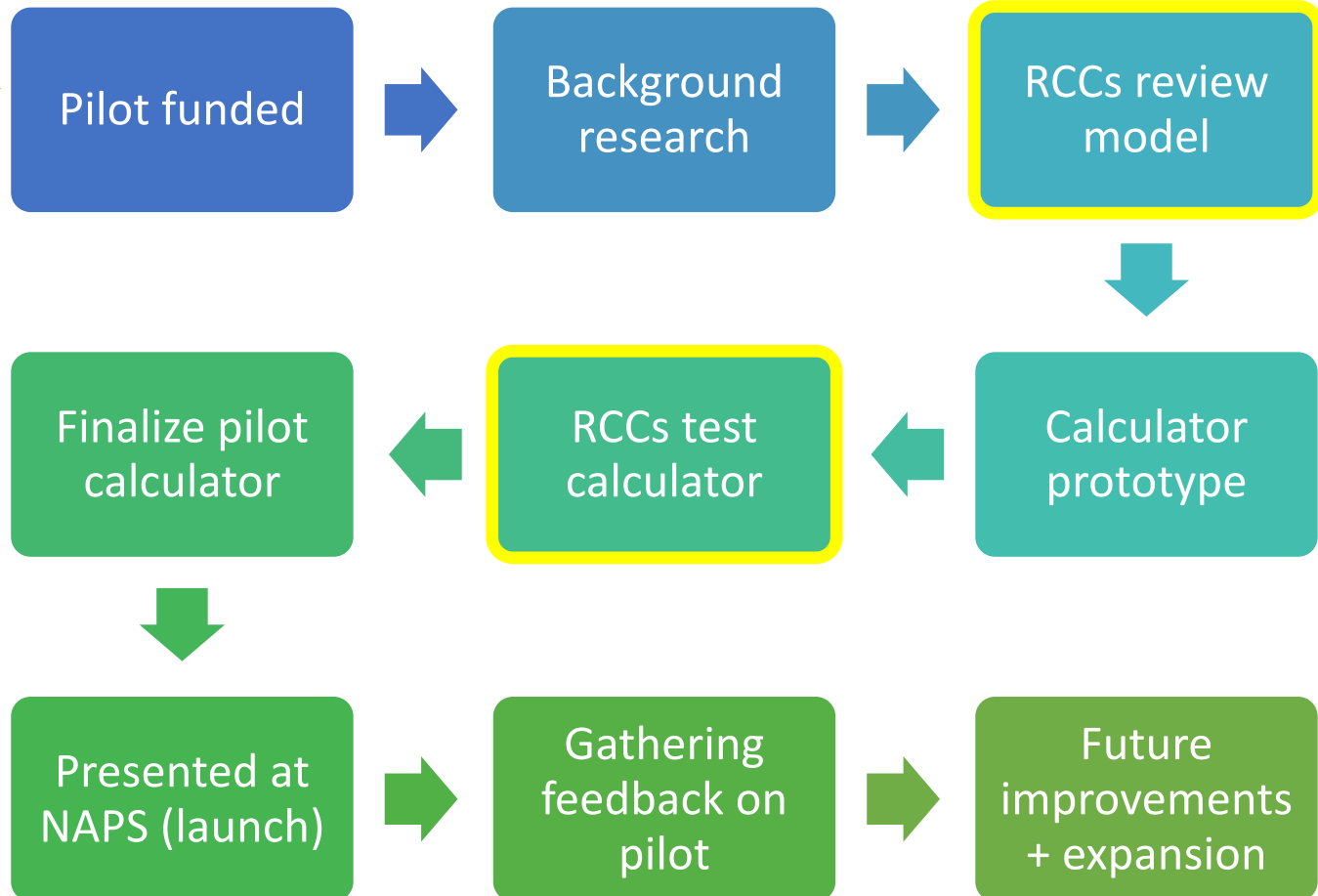
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THANK YOU to [Communities for Recovery](#) and [RecoveryATX](#) for providing critical feedback!

Funding from Recovery Research Institute Pilot Grant Program




The Markov Chain

L4 \times \checkmark f_x $\{=MMULT(K3:M3,\$F\$10:\$H\$12)\}$

	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	
1																
2					ActiveSUD	Recovery	Dead	LY	intervention							
3			Power	25	0	2572000	0		LY disc	dead c	dead f	QALY	QALY disc	ActiveSUD	Recover	
4				1	26	663790.776	1880132	28077.2239	2557961.39	2483457.66	0	28077.2239	1904317.88	1848852.31	1257922.78	12
5				2	27	1261989.12	1254162.94	55847.9428	2544076.03	2398035.66	7246.26836	20524.4506	1753188.91	1652548.7	1642233.6	87391
6				3	28	1384864.59	1103819.91	83315.5029	2530342.25	2315621.6	13776.4973	13691.0628	1704099.51	1559492.46	1704269.95	78441
7				4	29	1484534.37	976982.412	110483.214	2516758.39	2236107.24	15117.8667	12049.8439	1660772.55	1475574.9	1752834.88	70868
8				5	30	1556001.49	869895.562	146102.951	2498948.52	2155614.95	21798.785	13842.7117	1619657.45	1397130.74	1780515.35	64452
9				6	31	1611265.1	779230.213	181504.685	2481247.66	2078005.85	23367.6606	12252.0765	1579333.08	1322666.59	1799028.87	58990
10	0.020	0.011		7	32	1652997.42	702363.285	216639.299	2463680.35	2003197.58	25362.4952	9772.11875	1541887.17	1253695.37	1809918.51	54329
11	0.731	0.011		8	33	1683440.78	637092.373	251466.842	2446266.58	1931105.43	26019.3925	8808.15106	1507317.14	1189890.07	1814478.64	50343
12	0.000	1.000		9	34	1704476.7	581568.257	285955.042	2429022.48	1861643.47	26498.5934	7989.60593	1475037.88	1130493.71	1813794.9	46924
13				10	35	1718016.27	534238.235	319745.5	2412127.25	1794849.21	25133.4827	7293.29276	1444429.55	1074791.24	1809482.37	43982
14				11	36	1725163.72	493805.21	353031.073	2395484.46	1730548.94	25333.1313	6699.73955	1416092.61	1023015.43	1801639.1	41443
15				12	37	1727004.08	459175.753	385820.17	2379089.92	1668645.8	25438.5246	7350.5726	1389758.71	974748.796	1790892.23	39244
16				13	38	1724447.85	429431.229	418120.925	2362939.54	1609046.84	25465.6617	6835.09339	1364266.9	928999.372	1777767.7	37332
17				14	39	1718258.96	403799.814	449941.223	2347029.39	1551662.92	25427.9686	6392.32916	1339946.93	885862.774	1762706.37	35661
18				15	40	1700364.08	381633.019	490002.899	2326998.55	1493611.82	25336.71	6010.7909	1311547.74	841832.586	1737374.76	34194
19				16	41	1680482.09	362211.678	529306.228	2307346.89	1437862.3	32055.3378	7247.99094	1286823.26	801905.712	1711251.93	32881
20				17	42	1659022.43	345111.685	567865.89	2288067.06	1384318.2	31680.5217	6879.13998	1260310.54	762508.602	1684555.86	31700
21				18	43	1636327.27	329976.498	605696.229	2269151.89	1332887.58	31275.9631	6554.37617	1234654.59	725229.447	1657467.95	30631
22				19	44	1612682.4	316506.333	642811.27	2250594.37	1283482.52	30848.1131	6266.92803	1209782.22	689921.895	1630138.88	29658
23				20	45	1572229.2	304449.095	695321.704	2224339.15	1231562.66	30402.3589	6011.10208	1176197.92	651232.27	1586559.4	28766
24				21	46	1532316.63	293270.805	746412.568	2198793.72	1181959.97	43521.7801	7569.08392	1148333.7	617285.95	1544030.96	27912
25				22	47	1492020.1	282859.225	796120.670	2173220.66	1124552.81	42416.0272	7301.17405	1116541.70	592714.795	1502546.95	27002

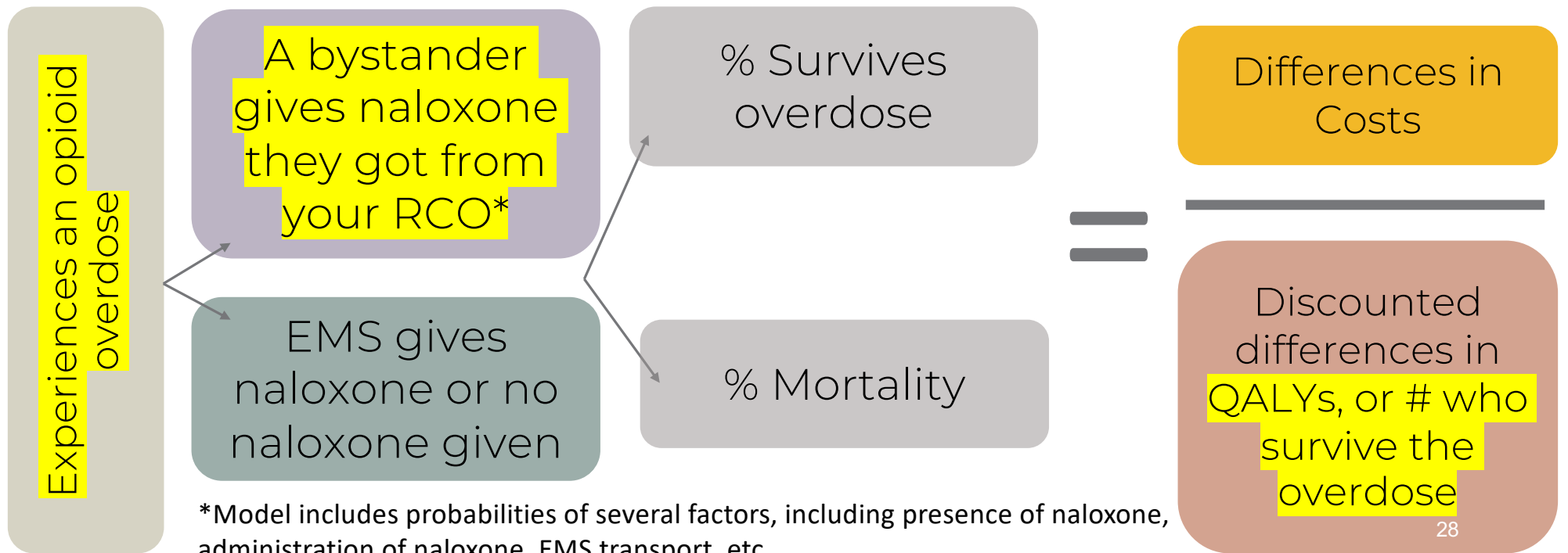


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Bystander Naloxone Distribution Model

$$\frac{\text{Cost of Intervention} - \text{Cost of Treatment as Usual}}{\text{Intervention Effect} - \text{Treatment as Usual Effect}} = \text{Incremental Cost-Effectiveness Ratio}$$





Cost Effectiveness of Distributing Naloxone to Lay Users

- *Cost-Effectiveness of Distributing Naloxone to Heroin Users for Lay Overdose Reversal*, Coffin and Sullivan (2013)
- Found that distributing naloxone to heroin users for reversal by bystanders was cost-effective. One life would be saved per 227 naloxone kits distributed.
- Rigorous cost-effectiveness study.
- Modeled the calculator after this study, updating the parameters and simplifying some of the analysis.



Bystander Naloxone Distribution Calculator Parameters

- Updated parameters to 2019 values where relevant.
- Other parameters were revised based on the literature, such as:
 - Likelihood that overdose was witnessed
 - Likelihood that naloxone administered if witnessed
 - Proportion who call EMS if witnessed
 - Proportion transferred to ED if EMS called
 - Medical costs
- Modeled probability of overdose over three years, rather than modeling multiple overdoses



Bystander Naloxone Distribution Calculator Parameters

- Did not include some parameters from study, such as utility and transition from heroin use to discontinued use following an overdose
- Question survival rate from overdose if no treatment administered. Markov chain calculations on mortality measures mortality in excess of background rates.
- Calculator represents a robust model that allows RCCs to calculate the cost-effectiveness of distributing naloxone to their participants in order for witnesses who have access to that naloxone to administer it.

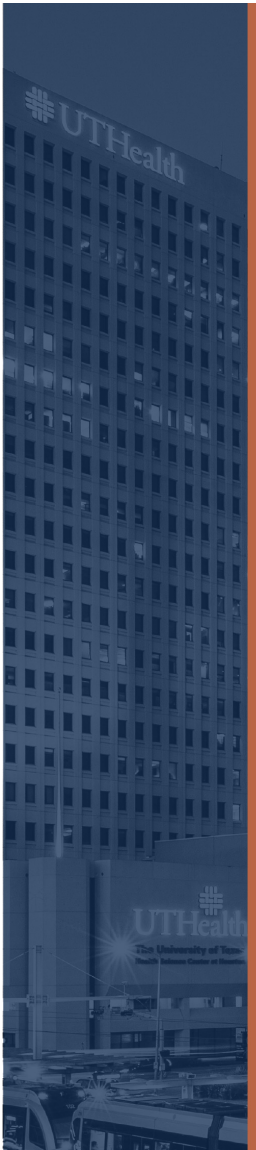
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Let's look at the calculator!

web.sph.uth.edu/cea/



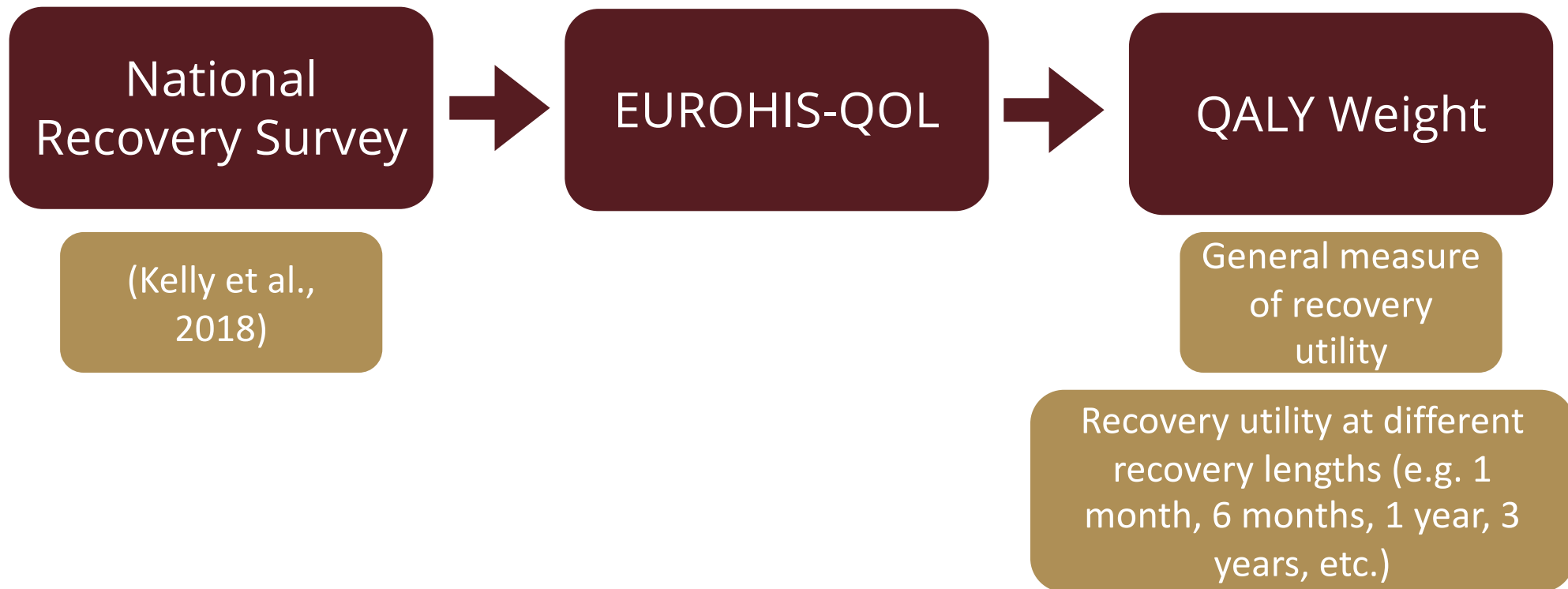
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Future Research

Recovery Utility



Future Research

Recovery Utility



Expansion in future to other forms of recovery quality of life measurement (e.g. Recovery Capital)

Future Directions

Cost-effectiveness Calculators as Decision Aids in Funding Community Substance Use Interventions



R34→ R01, co-investigator with Dr. H.S. Brown, Dr. Lori Holleran Steiker (+ others)

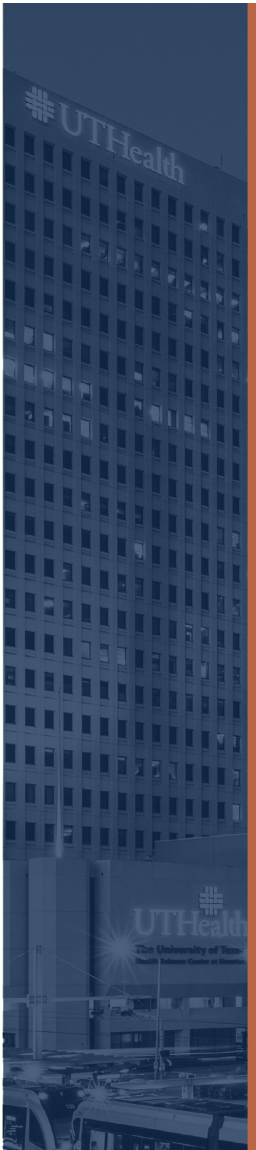
UTHealth, UT Austin, National Sobering Collaborative, ARCO, ARHE, ARS, AAPG

Additional feedback or questions?
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Margaret.B.Moore@uth.tmc.edu



Discussants



Patty McCarthy
Chief Executive Officer
Faces & Voices of Recovery



Philip Rutherford
Chief Operating Officer
Faces & Voices of Recovery



**FACES & VOICES
OF RECOVERY**

ADVOCATE. ACT. ADVANCE.