

Understanding the Landscape in NC for Substance Use Disorders, Addiction & Treatment... with special emphasis on Opioids & Medication Assisted Treatment (MAT)

Presentation for the NC Institute of Medicine

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Coastal Horizons & NCATOD

April 29, 2019

NCATOD

- NCATOD = the North Carolina Association for the Treatment of Opioid Dependence
 - www.ncatod.org
 - Fall Conference each year & website resources
 - ~20,000 patients in OTPs / ~800 Professionals
- AATOD = The American Association for the Treatment of Opioid Dependence
 - www.aatod.org
 - National Conference every 18 months & website resources

Coastal Horizons

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Coastal Horizons ...

***Providing & Promoting Choices for
Stronger Families, Healthier Lives &
Safer Communities***

Behavioral Health is Essential To Health



Prevention Works



Treatment is Effective



People Recover

PREVENTION

- Decrease **STIGMA** associated with Addiction & Treatment
- Focus on **SAFETY, WELLNESS, RESILIENCE & RECOVERY**
- Increase **collective efforts** such as community education, reduce access to Rx drugs (from medicine cabinet to proper disposal to DR. education to patient education)
- Support Efforts that **Increase Protective Factors** and **Decrease Risk Factors**
- Address the **Impact of Trauma** in its many expressions
- Look for **Faith community** opportunities to partner
- Explore how **TECHNOLOGY** can assist in these efforts

DECREASE STIGMA & INCREASE HOPE

PREVENTION

- Supporting Policies & Funding that Promote Prevention Efforts at Several Levels
- Using Research, Data & Experience from other States in Making Key Decisions
- Work to “Reframe” Pain
- Work to Re-educate about Addiction, Substance Use Disorders (SUD) & Recovery in the context of Health & Wellness

STIGMA & LANGUAGE





Reframing Pain

TAKE CHARGE OF YOUR PAIN

Pain can be reduced by:

- Exercise
- Weight control
- Relaxation
- Medication
- ✓ ALL OF THESE AND MORE

Talk with your health provider about the many ways to control your pain.



The word cloud, shaped like a person in a yoga pose, contains the following terms:

- Head:** health, breath, consulting, know, your, choices, music, art, relaxation, meditation, games, spirituality, hobbies, tai chi, know your meds, topicals, aids.
- Upper Body:** physical therapy, over the counter, recreation, dancing, trust, ice, activity, massage, peer support, meds, safe dose, muscle relaxation, sleep, occupational therapy, topicals, aids.
- Torso:** movement, weight loss, awareness, healthy, relaxation, eating, support, weight, safe use, maintenance, weight control, exercise, counseling, recreation, stretching, elevation, water, aerobics, nutrition, acupuncture, wellness, balance, chiropractic care, rest, yoga, specialist, awareness, communication, motivation, mood, prevention, elevation, muscle relaxation, sleep, know your choices, ice.
- Lower Body:** ice, rest, medication, understanding, heat, compression.



Community Partners Coalition



terminated
a specified per
addiction. 1. T
substance, es
narcotic dr
emotional

Addiction is:

- **a chronic brain disease caused by complex, long-term, changes in the structure and functioning of the brain.**
- expressed as compulsive behavior
- expressed within a social context
- prone to relapse
- Treatable

Addiction Is A Brain Disorder

**During active
substance use**



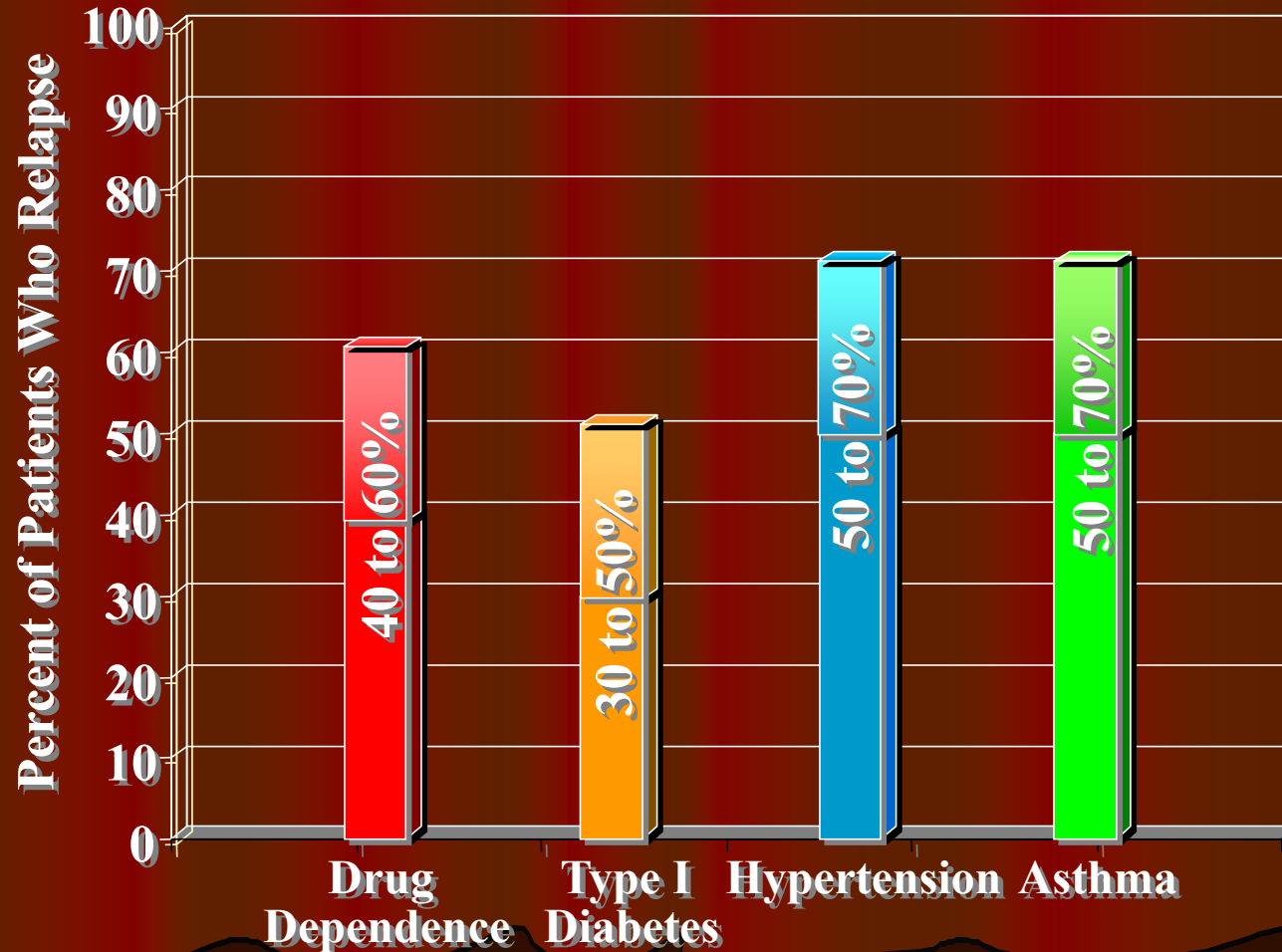
**One year free of
substance use**



Treatment...Does it work?

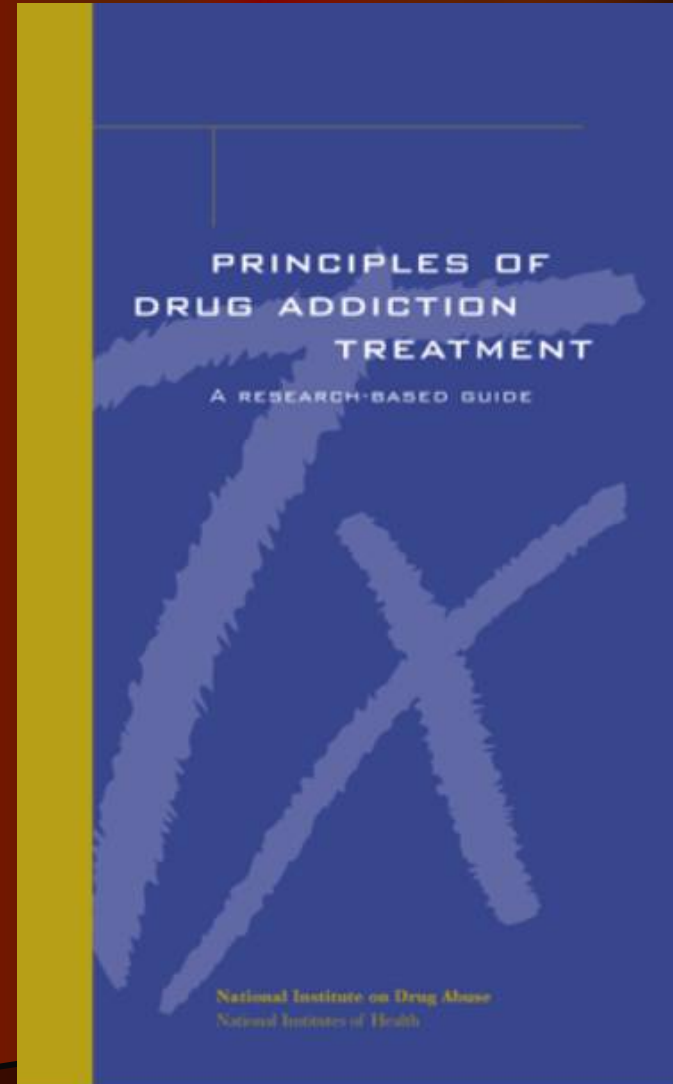
Drug addiction is a chronic illness with relapse rates similar to those of hypertension, diabetes, and asthma

Relapse Rates for Drug Addiction are Similar to Other Chronic Medical Conditions



Treatment Can Work

- **No single treatment is appropriate for all individuals.**
- **Treatment needs to be readily available.**
- **Treatment must attend to multiple needs of the individual, not just drug use.**
- **Multiple courses of treatment may be required for success.**
- **Remaining in treatment for an adequate period of time is critical for treatment effectiveness.**



Effectiveness of Treatment

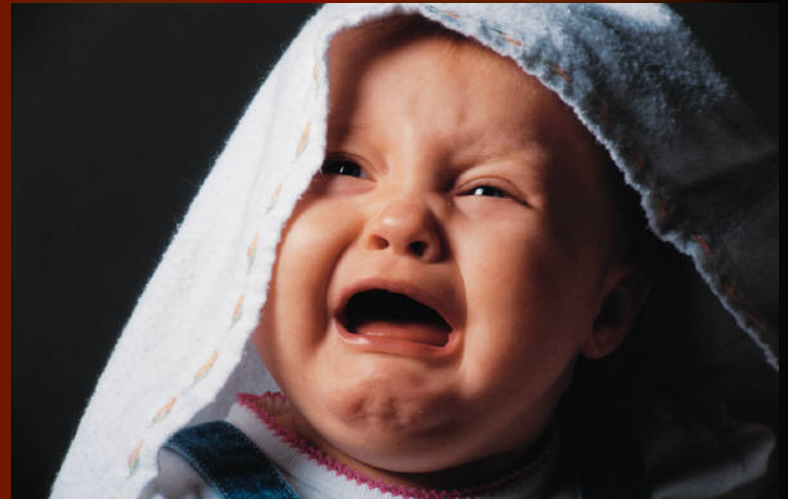
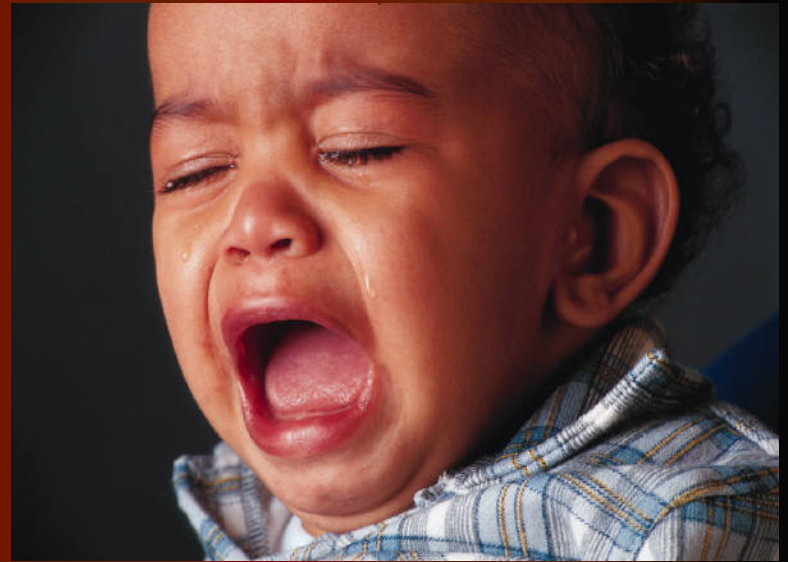


But, you might ask...

“Don’t people have to want it,
don’t they have to be ready and
motivated for treatment, in order
for treatment to do any good???”

**“The only
people really
motivated for
change are
really wet
babies.”**

B.F. Skinner



Cost Offset of Treatment Services

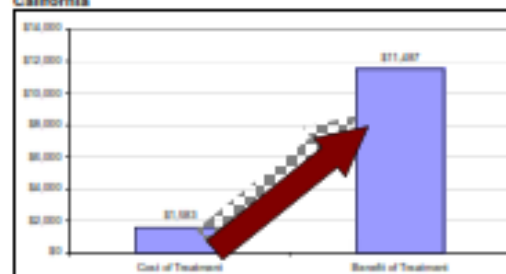
There is a great paucity on nationwide data related to the cost benefit of substance use treatment. However, the limited research in some States suggests that there is a major benefit to substance use treatment. According to recent estimates¹, the total financial cost of drug use disorders to the United States is estimated to be \$180 billion annually. The economic costs of alcohol abuse were 184.6 billion in 1995². Accessible and effective community-based alcohol and drug treatment is imperative to reduce society's financial burden from problems associated with drug use. As the U.S. economy faces unsustainable escalations in health care costs, we need to ensure needed substance use disorder treatment and recovery programs help reduce health and societal costs.

The benefits of treatment far outweigh the costs. Even beyond the enormous physical and psychological costs, treatment can save money by diminishing the huge financial consequences imposed on employers and taxpayers.

Cost Savings of Treatment: California, New York, and Washington

Treatment has been shown to have a benefit-cost ratio of 7:1³. The largest savings were due to reduced cost of crime and increased employer earnings (see Figure 1).

Figure 1. Cost Offset of Substance Abuse Treatment in California



For every \$100,000 spent on treatment,



\$467,000 of health care costs⁴ and
\$700,000 of crime costs were
shown to be avoided⁴.

Public Assistance in Washington

A comparison of medical expenses of Medicaid clients⁵ who received treatment noted these savings:

| Modality | Savings per Medicaid member per month |
|------------|---------------------------------------|
| Inpatient | \$170 |
| Outpatient | \$215 |
| Methadone | \$230 |

Spending money on treatment has led to important health and public safety cost reductions in Washington⁷:



Health Care Utilization Savings: California

Treated patients have been shown to reduce⁸:



Employers

Employees treated for substance use⁹ have:

- reduced absenteeism,
- reduced tardiness,
- lowered on the job injuries,
- fewer mistakes, and
- disagreements with supervisors by



A Cost/Benefit Analysis ...

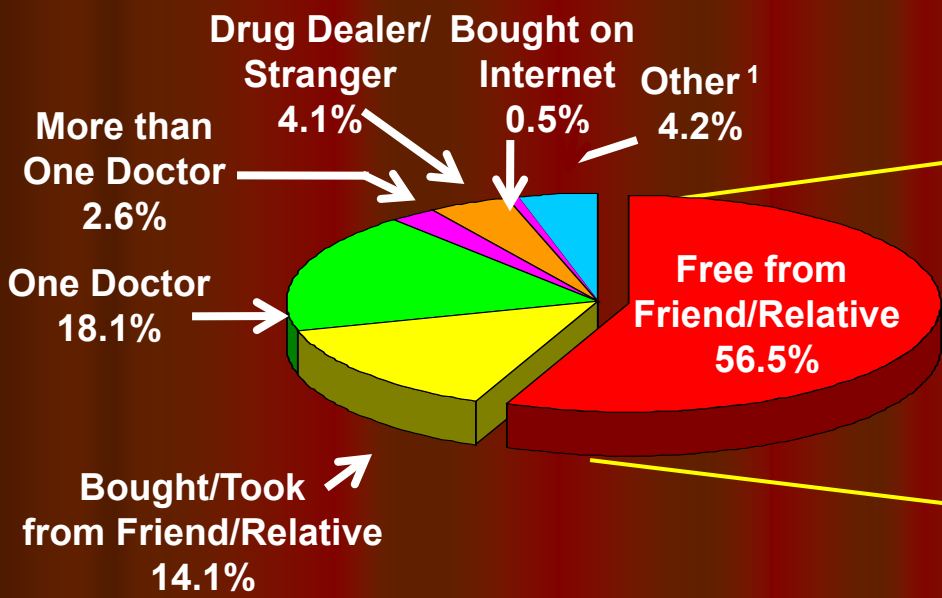
- *Addiction is both preventable and treatable ... untreated addiction costs \$1,000 for every man, woman, and child ...*
- *For every \$1.00 spent on Prevention and Treatment, anywhere from \$7.00 to \$18.00 in medical, legal, and other social costs can be saved ...*
- *Research shows conclusively that successful prevention and treatment not only reduces substance abuse and addiction, but also leads to reductions in traffic fatalities, crime, unwanted pregnancy, child abuse, HIV, cancer, and heart disease.*

Treatment vs. Recovery

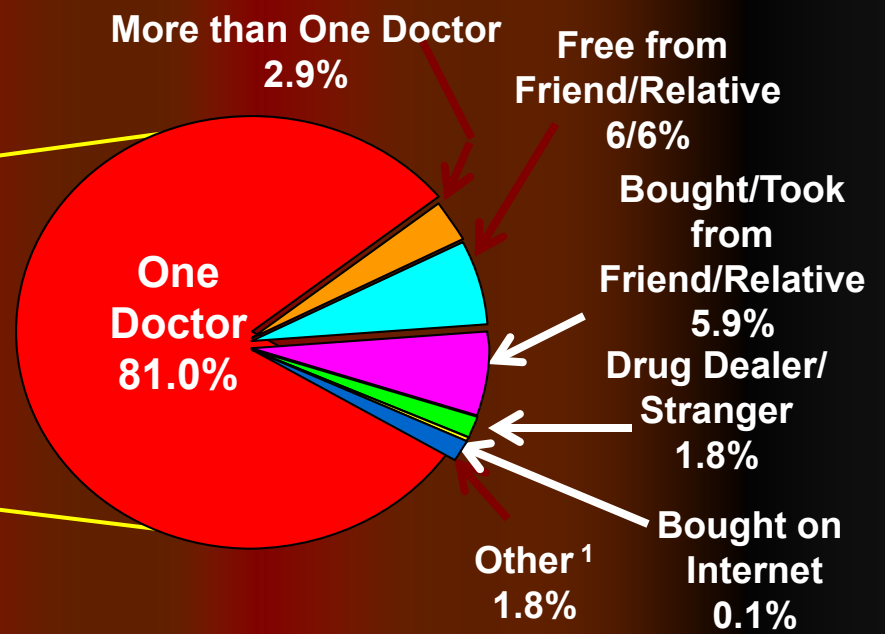
- Treatment is what we do...
- **Treatment is a system of behavioral therapies and/or pharmacotherapy delivered to assist (over time) individuals in their recovery ...**
- Recovery is what you do ...
- **Recovery is the process that an individual and/or family goes through in pursuing healthier living and freedom from addictive, destructive patterns of thinking and acting...**

Source Where Pain Relievers Were Obtained for Most Recent Nonmedical Use among Past Year Users Aged 12 or Older: 2007

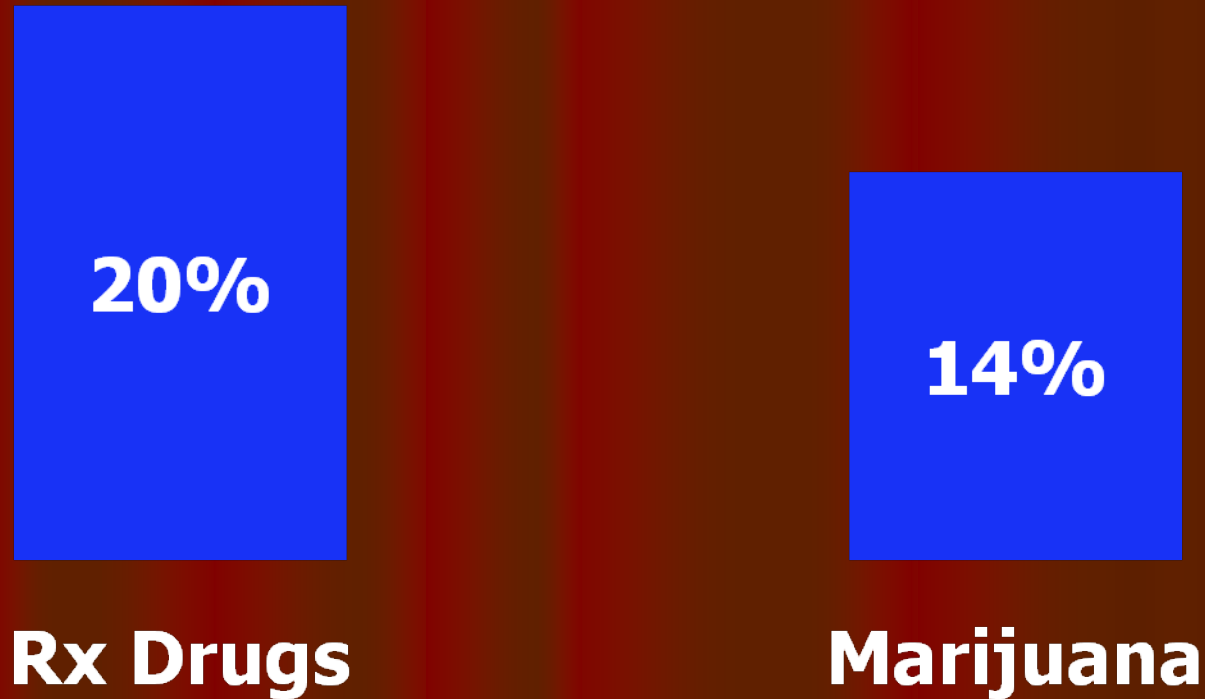
Source Where Respondent Obtained



Source Where Friend/Relative Obtained



More Teens Can Get Rx Drugs than Marijuana within 1 Hour; Difference Shrinks with Age



JACKPOT!



Heroin Trends

Heroin Use Surges, Especially Among Women And Whites

- **Health officials, confronted with a shocking increase in heroin abuse, are developing a clearer picture of who is becoming addicted to this drug and why. The results may surprise you. The biggest surge is among groups that have historically lower rates of heroin abuse: women and white (non-Hispanic) Americans. They tend to be 18-25 years old, with household incomes below \$20,000. "In addition, persons using heroin are abusing multiple other substances, especially cocaine and opioid pain relievers," says a report published Tuesday by the Centers for Disease Control and Prevention. All told, more than half a million Americans used heroin in 2013, according to the report. That represents a nearly 150 percent increase since 2007.**

- <http://www.npr.org/sections/health-shots/2015/07/07/420874860/heroin-use-surges-especially-among-women-and-whites>

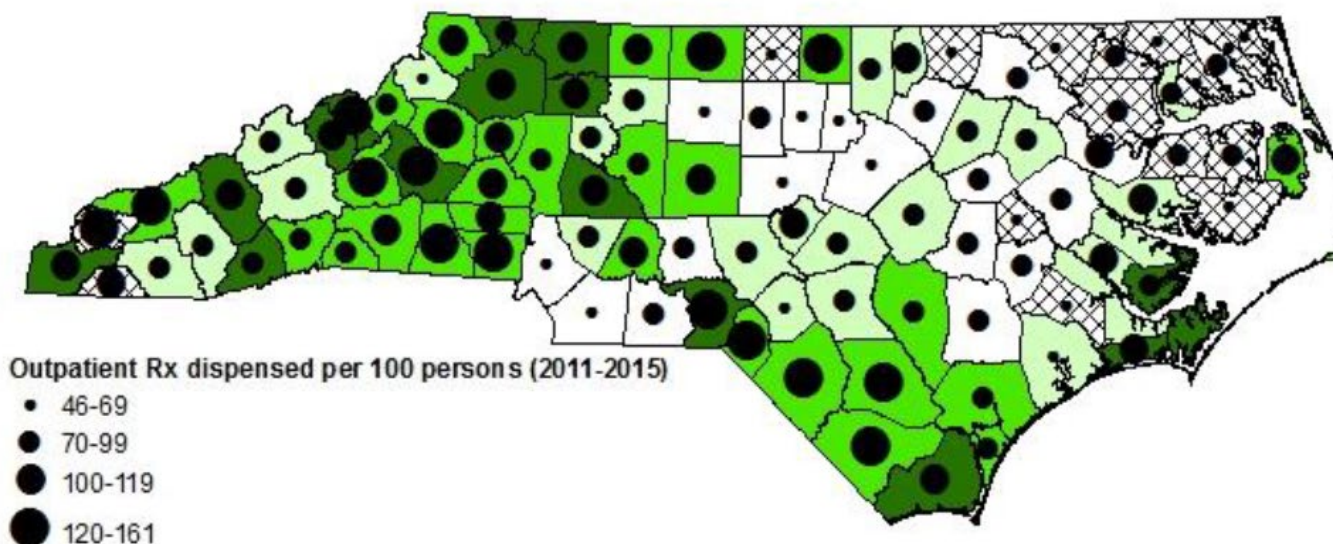
| County | Opioid-related overdose rate per 100,000 (2012-2016) |
|-------------|--|
| Chatham | 2.32 |
| Duplin | 2.35 |
| Anson | 3.86 |
| Lenoir | 4.45 |
| Orange | 4.70 |
| Northampton | 4.85 |
| Durham | 4.90 |
| Montgomery | 5.09 |
| Martin | 5.10 |
| Wake | 5.10 |

| County | Opioid-related overdose rate per 100,000 (2012-2016) |
|-------------|--|
| Wilkes | 30.78 |
| Burke | 22.79 |
| Brunswick | 20.13 |
| Yadkin | 19.04 |
| Yancey | 18.17 |
| Mitchell | 17.02 |
| Gaston | 16.81 |
| Alleghany | 16.53 |
| Rowan | 16.28 |
| New Hanover | 16.07 |

Source: Deaths-N.C. State Center for Health Statistics, Vital Statistics, 2012-2016,
Any mention of T40.0 (opium), T40.2 (Other Opioids), T40.3 (Methadone) and/or T40.4 (Other synthetic opioid) and
unintentional intent (Y40-Y44)/Population-National Center for Health Statistics, 2012-2016
Analysis by Injury Epidemiology and Surveillance Unit

Rates of Unintentional/Undetermined Prescription Opioid Overdose Deaths & Outpatient Opioid Analgesic Prescriptions Dispensed

North Carolina Residents, 2011-2015



Source: Deaths- N.C. State Center for Health Statistics, Vital Statistics, 2011-2015, Overdose: (X40-X44 & Y10-Y14) and commonly prescribed opioid T-codes (T40.2 and T40.3)/Population-National Center for Health Statistics, 2011-2015/Opioid Dispensing- Controlled Substance Reporting System, NC Division of Mental Health, 2011-2015
Analysis: Injury and Epidemiology Surveillance Unit

Average mortality rate:
6.4 per 100,000 persons

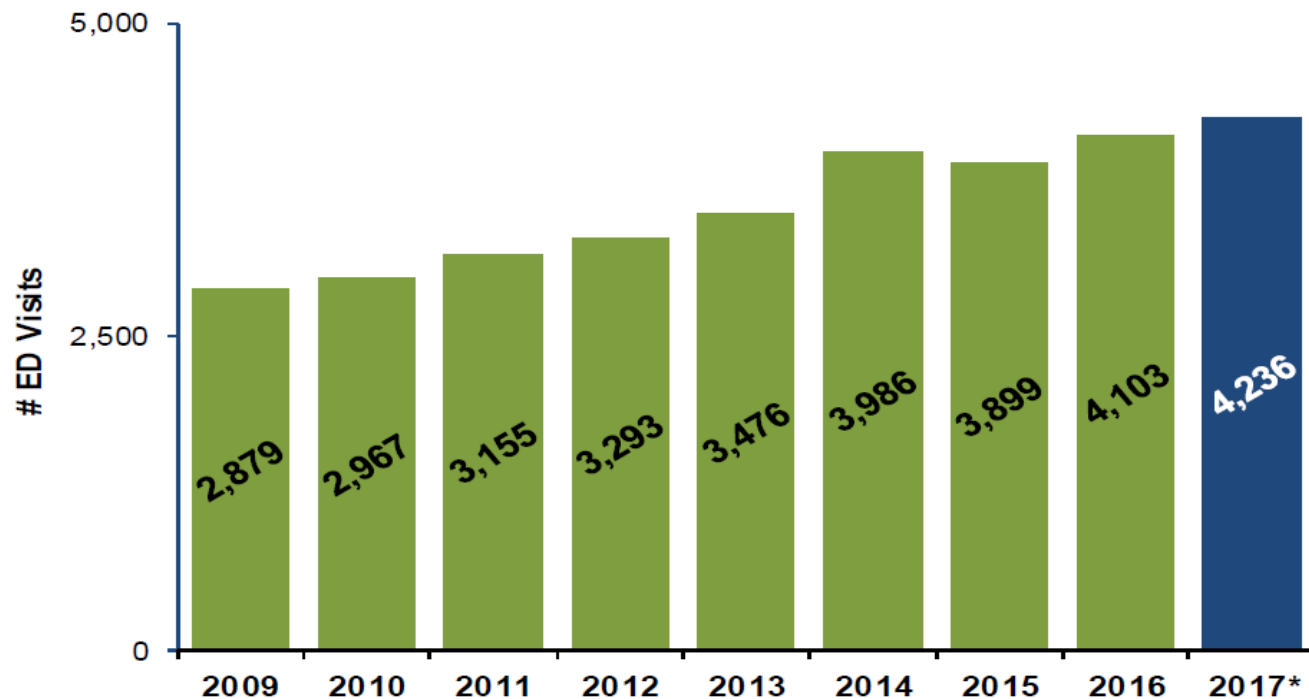
Average dispensing rate:
82.9 Rx per 100 persons

North Carolina
Injury & Violence
PREVENTION Branch



Opioid Overdose ED Visits by Year: North Carolina, 2009-2017 YTD

North Carolina
Injury & Violence
PREVENTION Branch



YTD: Year to Date
*Provisional
Data: 2017 ED
Visits

Source: The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NCDETECT). Counts based on diagnosis (ICD-9/10-CM code) of an opioid overdose of any intent (accidental, intentional, assault, and undetermined) for North Carolina residents. Opioid overdose cases include poisonings with opium, heroin, opioids, methadone, and other synthetic narcotics. Analysis by Injury Epidemiology and Surveillance Unit



Opioid Overdose ED Visits by Insurance Coverage: 2017 YTD

| Insurance Coverage | |
|--------------------|-----|
| Private insurance | 14% |
| Medicaid/Medicare | 27% |
| Uninsured/Self-pay | 50% |
| Other/Unknown | 9% |

Data Source: The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NCDETECT). Counts based on diagnosis (ICD-9/10-CM code) of an opioid overdose of any intent (accidental, intentional, assault, and undetermined) for North Carolina residents. Opioid overdose cases include poisonings with opium, heroin, opioids, methadone, and other synthetic narcotics.



Medication Assisted Treatment (MAT)

- **The use of medications...**
 - *in combination with counseling and behavioral therapies...**
 - *providing a whole-patient approach to the treatment of substance use disorders...**
 - *as part of a comprehensive treatment plan...**
 - *with the ultimate goal being recovery and the return to full social functioning.**

MAT

Table 1
FDA-Approved Drugs Used in MAT²¹

| Medication | Mechanism of action | Route of administration | Dosing frequency | Available through |
|---------------|---------------------|--|------------------|---|
| Methadone | Full agonist | Available in pill, liquid, and wafer forms | Daily | Opioid treatment program |
| Buprenorphine | Partial agonist | Pill or film (placed inside the cheek or under the tongue) | Daily | Any prescriber with the appropriate waiver |
| | | Implant (inserted beneath the skin) | Every six months | |
| Naltrexone | Antagonist | Oral formulations | Daily | Any health care provider with prescribing authority |
| | | Extended-release injectable formulation | Monthly | |

Figure 1
How OUD Medications Work in the Brain



Methadone



*Full agonist:
generates effect*

Buprenorphine



*Partial agonist:
generates limited effect*

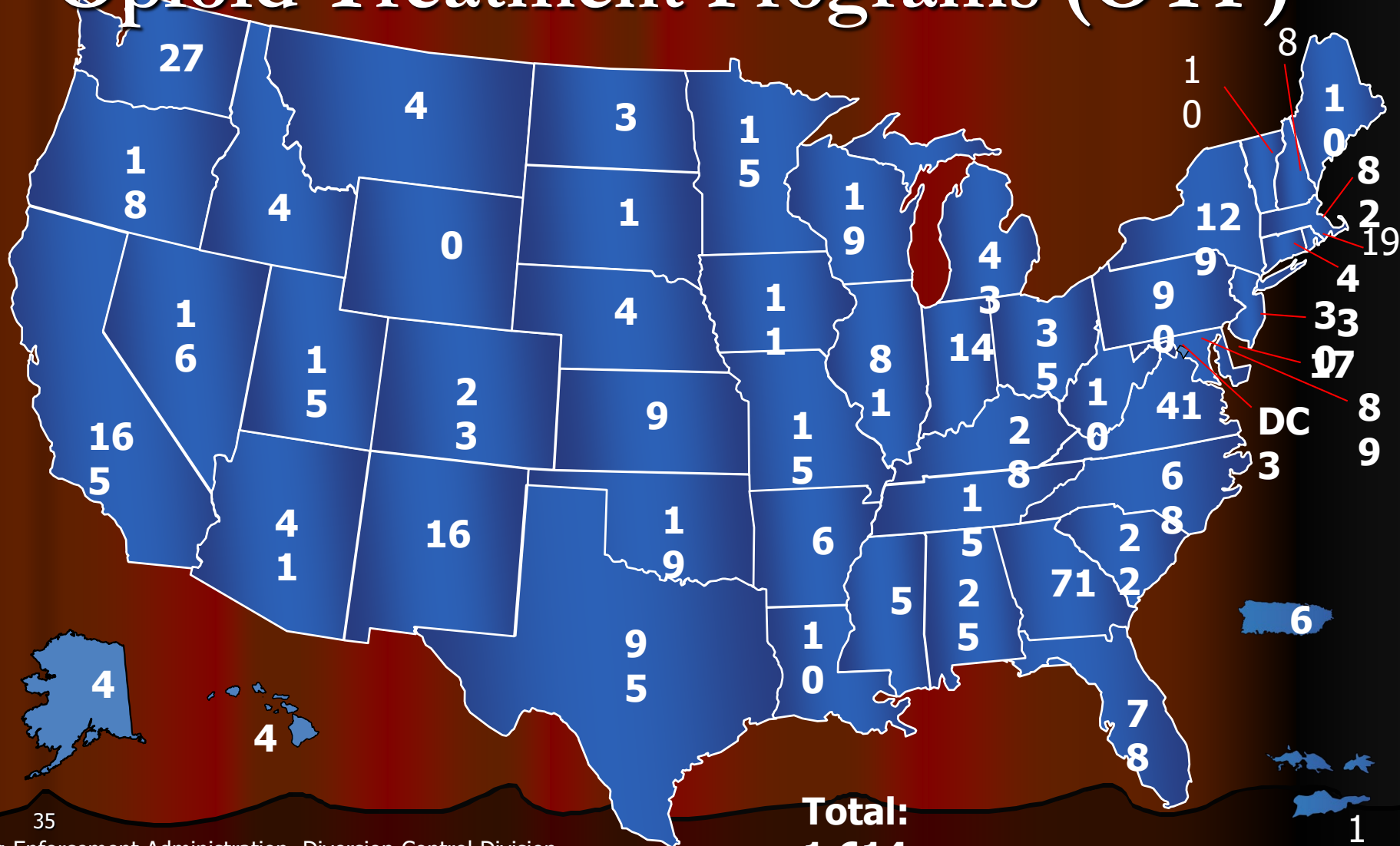
Naltrexone



*Antagonist:
blocks effect*

OBOT vs. OTP

DEA Registered Opioid Treatment Programs (OTP)



Total:
1,614

OTP – Documented Outcomes

- Methadone treatment has by far the largest, oldest evidence base of all treatment approaches to opioid addiction.¹⁰
- **MAT has been demonstrated to:**
 - *Decrease* opioid use, opioid-related overdose deaths, criminal activity, and infectious disease transmission
 - *Increase* social functioning and retention in treatment
 - *Improve outcomes* for babies born to opioid-dependent pregnant women¹¹
- **Low diversion rates:**
 - Opioid treatment programs are required to maintain and implement robust diversion control plans.
 - Methadone diversion is primarily associated with methadone prescribed for the treatment of pain and not for the treatment of opioid use disorders.¹²

10. TIP 63: Medications for Opioid Use Disorder

11. World Health Organization. Proposal for the inclusion of methadone in the WHO models list of essential medicines. (2005)

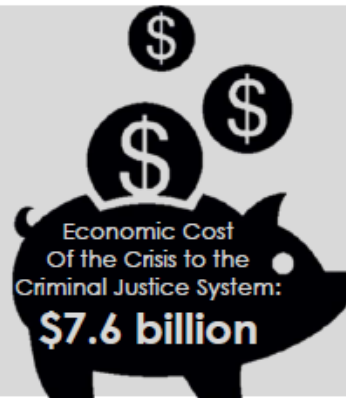
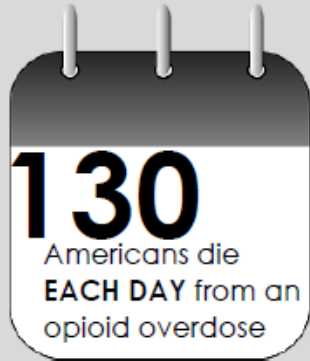
12. Medications to Treat Opioid Use Disorder, NIDA National Institute on Drug Abuse

NC, the CJS & Re-Entry

- In North Carolina, between 22,000 and 27,000 individuals are released from prison each year.
- A recent study in North Carolina found that, in the first two weeks after being released from prison, former inmates were 40 times more likely to die of an opioid overdose than someone in the general population.
- Why?
 - **1 – ~67% already have an SUD (Substance Use Disorder)**
 - **2 – Low tolerance, especially since many underwent forced withdrawal during incarceration**
 - **3 – Limited support systems upon release & lack of access to needed health care resources**

These findings, published online July 19, 2018 by the [American Journal of Public Health](#), were co-authored by five researchers from the UNC-Chapel Hill Gillings School of Global Public Health and two representatives of the N.C. Division of Public Health and the N.C. Department of Public Safety (DPS).

OPIOID CRISIS: BY THE NUMBERS



Risk of overdose
death is **129**
times higher in
the first 2 weeks
after release
from prison



Treating CJ-involved persons with
MAT results in a
COST SAVINGS OF
\$18,000 per person
over 6 months
compared to detox



EFFECTIVE SOLUTIONS: WHAT WORKS

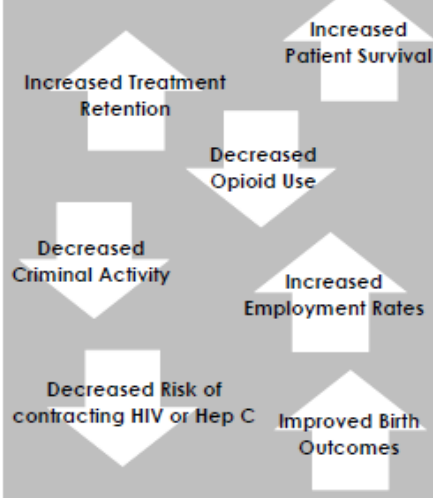


One study found that inmates who receive MAT are

85% LESS

likely to have an **OVERDOSE DEATH** in the first month after release

Other Benefits:



Rhode Island Prison-Based MAT Data:

64% of inmates utilizing MAT in the prison in Rhode Island choose methadone.

Of those over **93%** follow-through in the community.

This is an astounding figure and speaks strongly to the necessity of providing all federally-approved medications

CLINICAL GUIDANCE FOR TREATING PREGNANT AND PARENTING WOMEN WITH OPIOID USE DISORDER AND THEIR INFANTS



Access to Treatment

- A study on trends conducted in 2015 showed that only 10.8% of individuals age 12 or older who were identified as needing substance use treatment received treatment at a facility specializing in addiction treatment.³⁴
- Of those that do receive treatment, MAT is still significantly underutilized. One study showed that only 33% of heroin admissions had treatment plans that included MAT in 2016³⁵
- Research indicates that the two most common reasons given for not receiving substance use treatment among adults aged 18 were:
 - that they were not ready to stop using alcohol or illicit drugs, or
 - that they had no health care coverage and could not afford the cost of treatment.³⁶⁻³⁸

34. America's Need for and Receipt of Substance Use Treatment in 2015, the CBHSQ Report, SAMHSA, National Survey on Drug Use and Health

35. https://www.samhsa.gov/data/sites/default/files/2016_Treatment_Episode_Data_Set_Annual_Revised.pdf

36. Park-Lee, E., Lipari, R. N., Hedden, S. L., Copello, E. A. P., & Kroutil, L. A. (2016, September). *Receipt of services for substance use and mental health issues among adults: Results from the 2015 National Survey on Drug Use and Health*. NSDUH Data Review. Retrieved from <http://samhsa.gov/data/>

37. Han, B., Hedden, S. L., Lipari, R. N., Copello, E. A. P., & Kroutil, L. A. (2015, September). *Receipt of services for behavioral health problems among adults: Results from the 2014 National Survey on Drug Use and Health*. NSDUH Data Review. Retrieved from <http://samhsa.gov/data/>

38. Substance Abuse and Mental Health Services Administration. (2014). *Results from the 2013 National Survey on Drug Use and Health: Summary of national findings* (NSDUH Series H-48, HHS Publication No. (SMA) 14-4863). Rockville, MD: Author.

Making Progress and Moving Forward

- Centers for Medicare and Medicaid Services (CMS) is encouraging states to expand the availability of medication assisted treatment for opioid use disorder for Medicaid recipients through mechanisms such as **1115 waivers**.
- **HR 6** included provisions to cover for Opioid Treatment Program services under Medicare
- The **21st Century Cures Act of 2017** dedicated \$1 billion to fighting the opioid epidemic, with much of the funds going to treatment and recovery services.
- The **2018 Consolidated Appropriations Act** provided over \$3 billion in additional funding, including \$1 billion for State Targeted Response to the Opioid Crisis Grants through the Substance Abuse and Mental Health Services Administration and over \$400 million for the Health Resources and Services Administration to improve access to addiction treatment in rural and underserved areas.

**WE NEED ALL THE TOOLS IN
THE TOOLBOX!**

Co-Occurrence of Mental Illness with Substance Use Disorders

The Most Common MH Disorders Among Substance Using Populations...

- Mood ... *e.g., Depression, Bi-Polar, etc.*
- Anxiety ... *e.g., Panic, Phobia, OCD, PTSD, etc.*
- Personality ... *e.g., Antisocial, Borderline, Paranoid, etc.*
- Psychotic Disorders ... *e.g., Schizophrenia*
- Other Compulsions ... *e.g., Gambling, Overeating, Sex, etc.*

Anxiety, Loneliness & Depression

"Many older adults who drink are retired, the article notes. They may have lost a spouse, as well as their career, and feel they have no purpose. They may be lonely and depressed."

NY Times 10/4/2014

Reasons for Substance Use – per a Florida study:

63% - anxiety or depression

30% - financial stress

20% - cited retirement as a contributing factor

People with SMI and the General Population: A Comparison on Health Indicators

Data Sources:

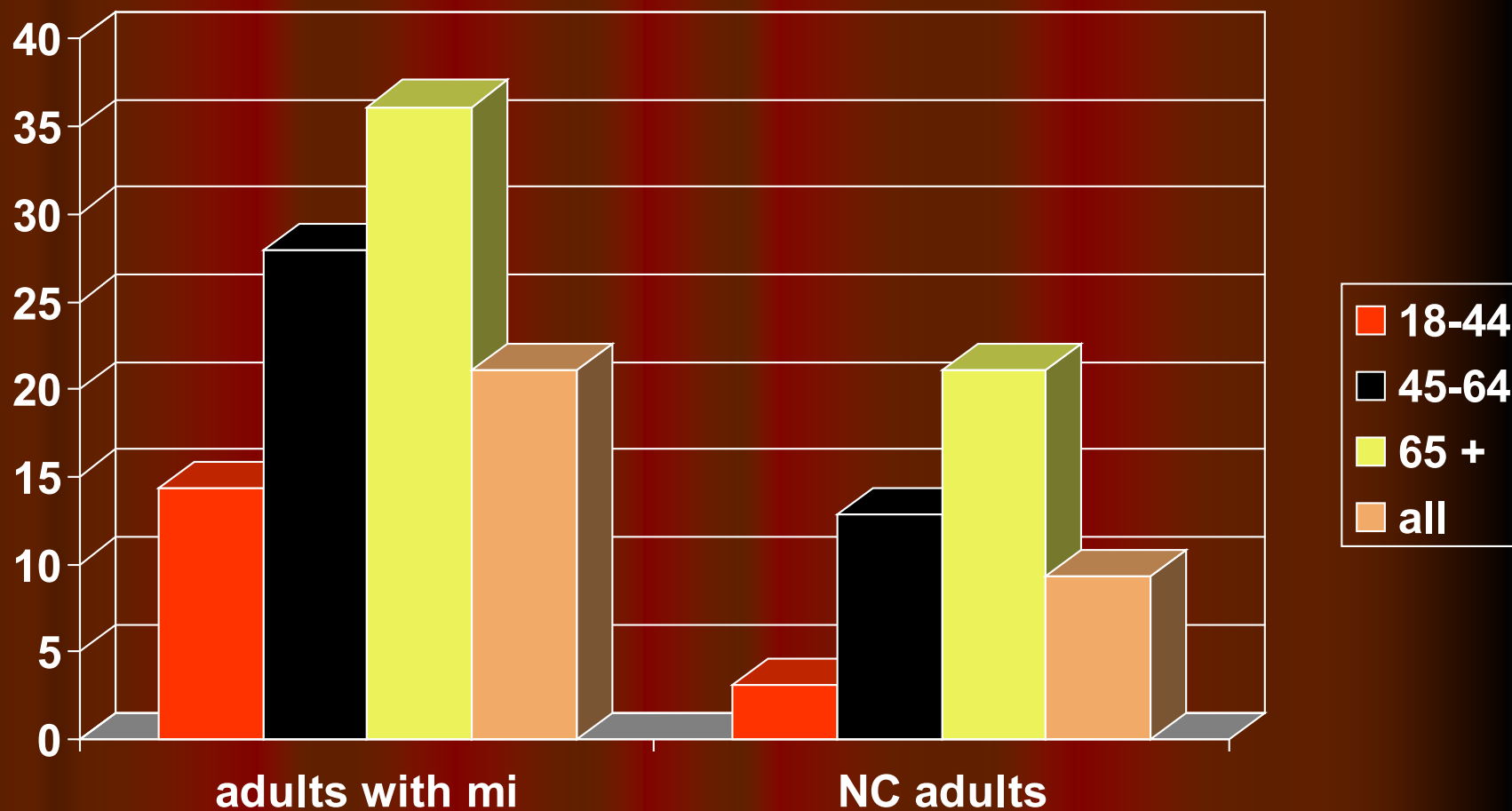
- The Mental Health Statistics Improvement Program (MHSIP) Perception of Care Survey for people with mental illness
- The NC Behavioral Risk Factors and Surveillance System for the general population of North Carolina adults

Impact of Co-morbidity

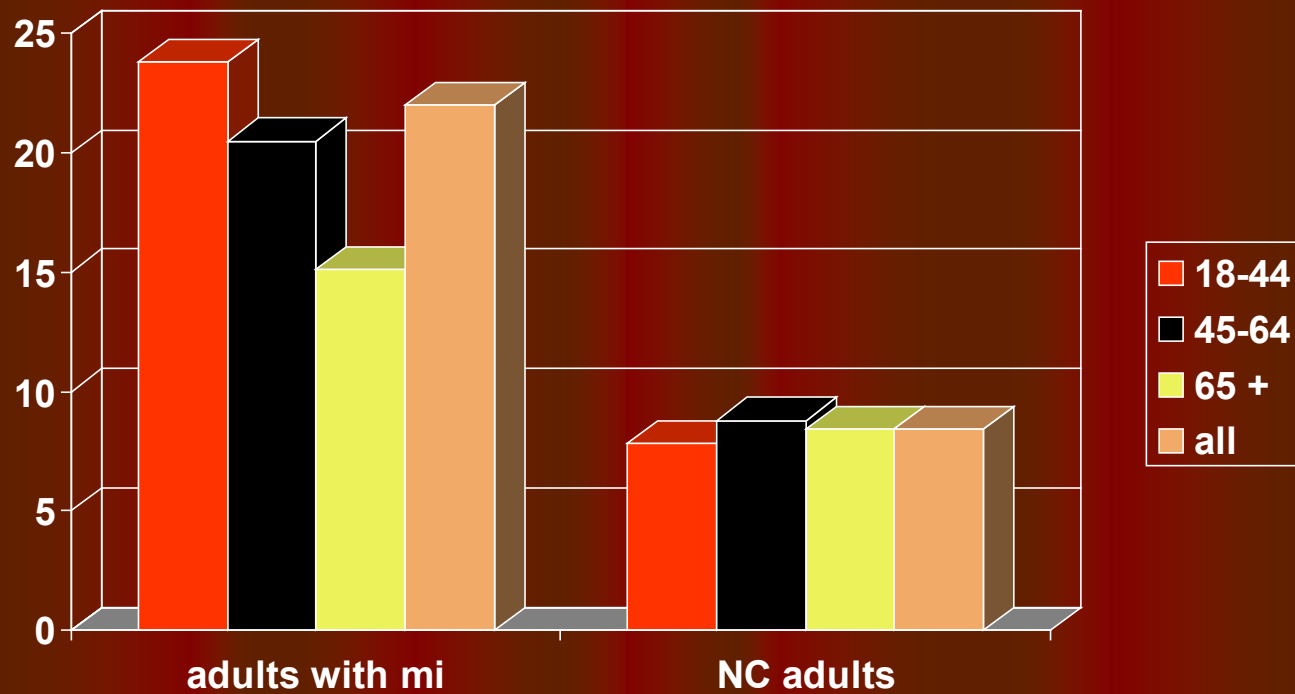
People with serious mental illnesses die 25 years earlier than the general population

- 87% due to medical illness especially:
Infectious, pulmonary, cardiovascular diseases, and diabetes.

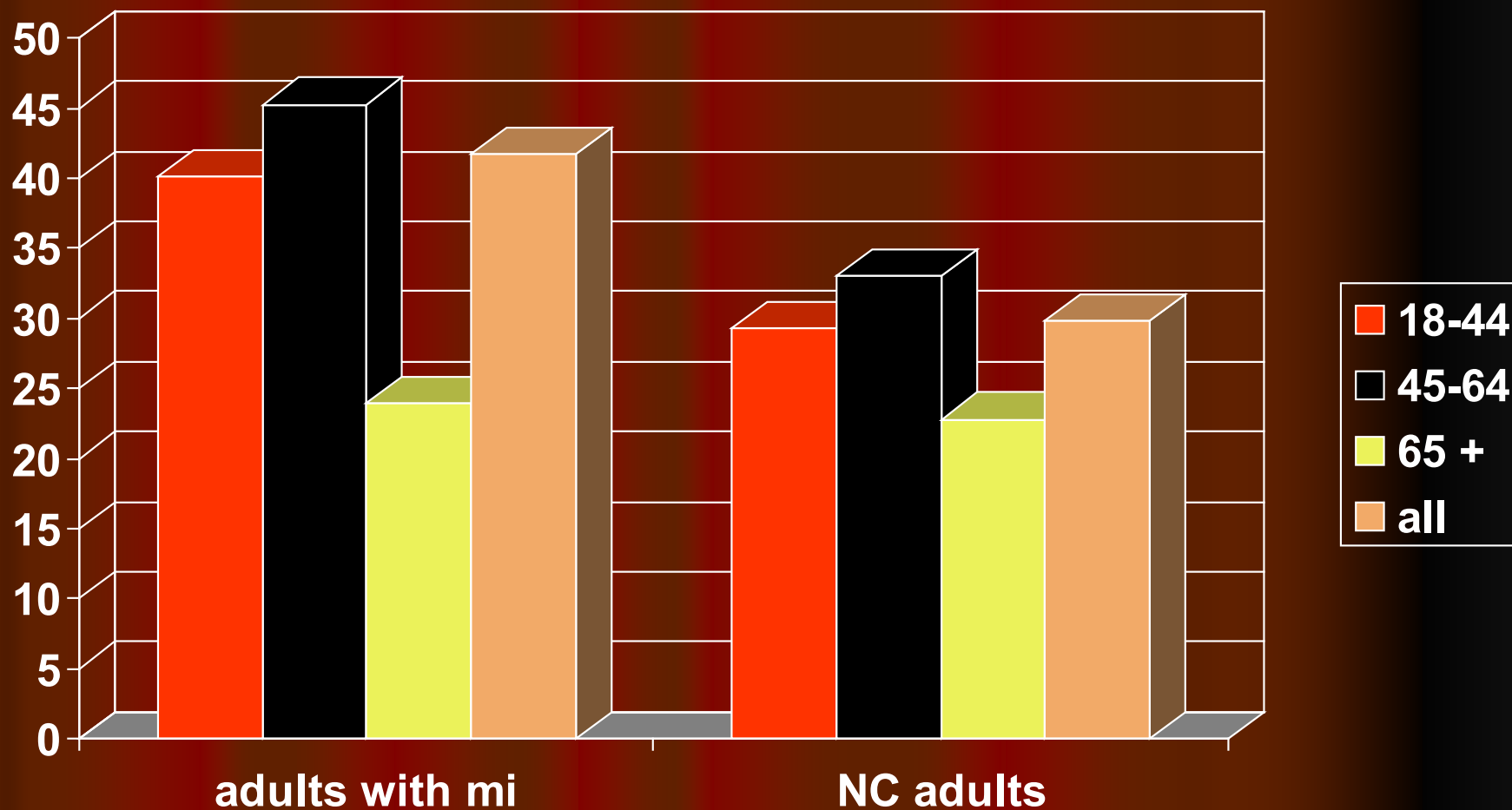
Diabetes



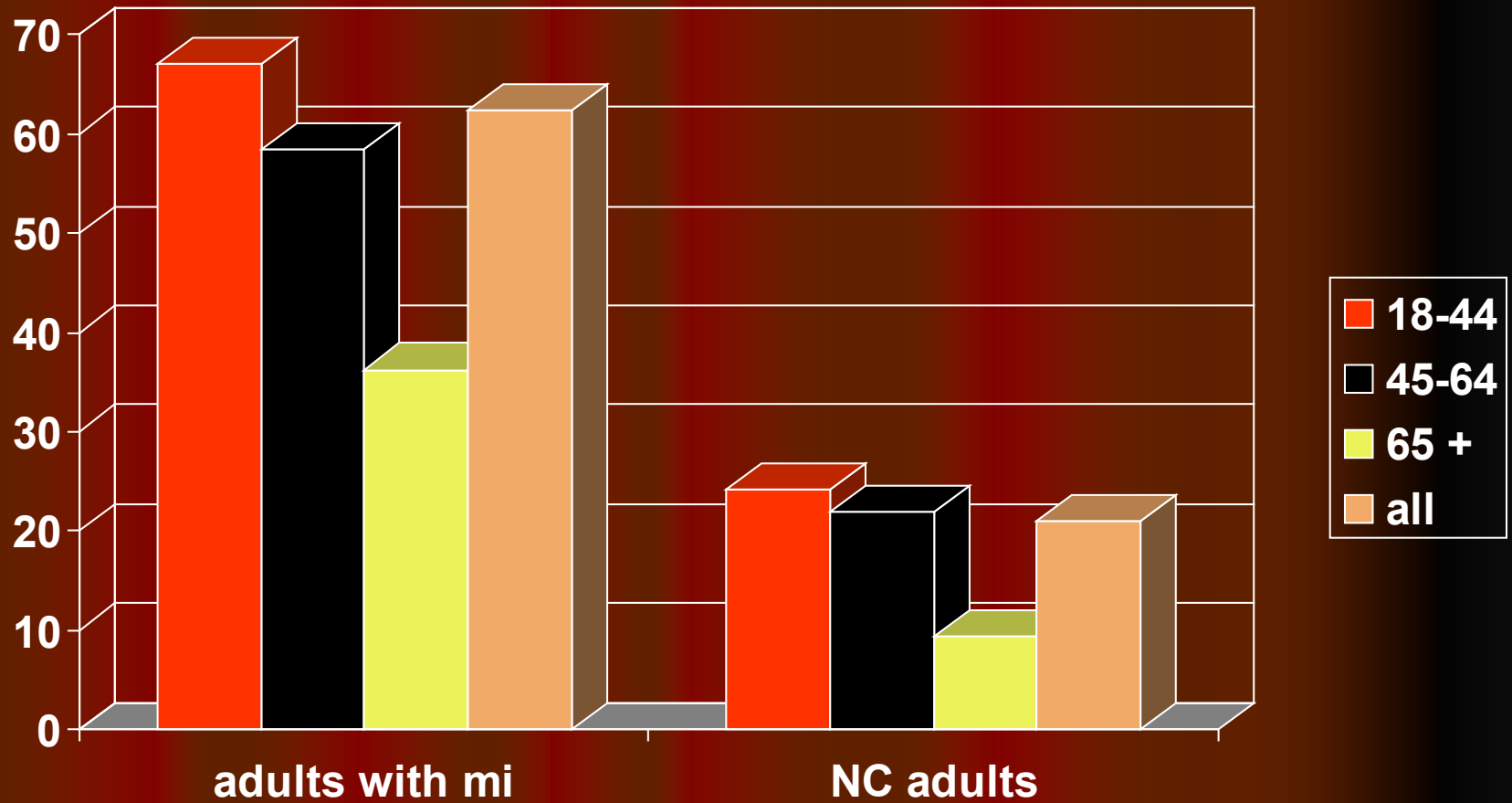
Asthma



Obesity



Smoking



*"We did what we knew,
and when we knew
better, we did better."*

Maya Angelou