CORRELATION BETWEEN SUBSTANCE USE AND SUICIDAL BEHAVIOR

Presented by David Fialko, BS, ICPS, NCTTS

Bucks County Drug & Alcohol Commission, Inc.

The Council of Southeast Pennsylvania, Inc.

Funding for these efforts is made possible by The Bucks County Drug & Alcohol Commission, Inc.

Mission is to reduce the use of tobacco and eliminate the use of illegal drugs and the abuse, misuse of and addiction to alcohol and other drugs.

215-444-2700

www.bcdac.org

Presentation Goals:

1. Explore the shared risk factors for SUD's and suicidal Ideation
2. Identify populations who are most at risk for a suicide attempt or completion.
3. Explore possible correlations between substance use and suicidal ideation
4. Briefly explore resources such as screening tools & benefits to concurrently treating both SUD's and Mental Illness
5. Encourage attendees to think, question what was presented here today and explore on your own!
6. If you find it worthy, share the information presented here today.

"Prevention starts with you!"

- Embedded hyperlinks! Please use a resource!
- YES you can share the PDF power point!
- If you're an educator, feel free to pull from it!
- Pay it forward!

STATISTICS

In 2021:

47,646 people
died by suicide
in the United States

https://www.cdc.gov/suicide/suicide-data-statistics.html

In 2020:

Men died by suicide 3.88x more than women.

https://afsp.org/suicide-statistics/

In 2020:

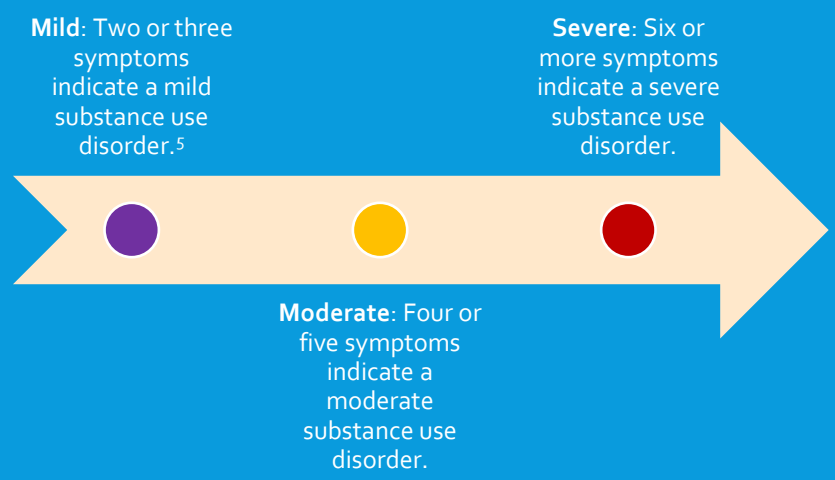
93% of adults surveyed in the U.S. think suicide can be prevented

https://www.datocms-assets.com

SUBSTANCE USE DISORDERS

DSM-5-TR Substance Use Disorder Criteria:

- Taking the substance in larger amounts or for longer than you're meant to
- Wanting to cut down or stop using the substance but not managing to
- Spending a lot of time getting, using, or recovering from use of the substance
- Cravings and urges to use the substance
- Not managing to do what you should at work, home, or school because of substance use
- Continuing to use, even when it causes problems in relationships
- Giving up important social, occupational, or recreational activities because of substance use
- Using substances again and again, even when it puts you in danger
- Continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance
- Needing more of the substance to get the effect you want (tolerance)
- Development of withdrawal symptoms, which can be relieved by taking more of the substance



10 percent of US adults have drug use disorder at some point in their lives. (National Institute of Health 2015)

American Psychiatric Association (APA). Diagnostic and Statistical Manual of Mental Disorders. 5th ed, text revision. Washington, D.C.; 2022.

SUBSTANCE-INDUCED DISORDERS

Substance-induced disorders involve problems that are caused by the effects of substances.

- Substance-induced psychotic disorders (delusions, hallucinations)
- Substance-induced bipolar and related disorders (manic/hypomanic)
- Substance-induced depressive disorders (post drug use depression)
- Substance-induced anxiety disorders (during & post drug use)
- Substance-induced delirium (paranoia, hallucinations, delusional thinking)
- Substance-induced neurocognitive disorders (memory impairment, loss of cognitive functioning)

- Appear within 1 month of intoxication or withdrawal from the substance
- Cause significant distress or impair functioning
- Not have been present before use of the substance
- Not occur only during acute delirium caused by the substance
- Not last for a substantial period of time

American Psychiatric Association (APA). Diagnostic and Statistical Manual of Mental Disorders. 5th ed, text revision. Washington, D.C.; 2022.

CORRELATION BETWEEN "USE/INDUCED"

- Compared with the general population, individuals with alcohol dependence and persons who use drugs have a 10–14 times greater risk of death by suicide, respectively (2)
- **Approximately 22%** of deaths by suicide have involved alcohol intoxication
- Opiates were present in 20% of suicide deaths
- **Marijuana in 10.2%**
- Cocaine in 4.6%
- Amphetamines in 3.4%

Source:
Wilcox HC, Conner KR, Caine ED, et al.: Association of alcohol and drug use disorders and completed suicide: an empirical review of cohort studies. Drug Alcohol Depend 2004; 76:S11–S19 Crossref, Google Scholar
https://pubmed.ncbi.nlm.nih.gov/15555812/

CORRELATION BETWEEN "USE/INDUCED"

Another Study:

- Over fifty percent of all suicides are associated with alcohol and drug dependence
- 25% of alcoholics and "drug addicts" commit suicide.
- Over 70% of adolescent suicides may be complicated by drug and alcohol use and dependence

https://pubmed.ncbi.nlm.nih.gov/1932152/

Miller NS, Mahler JC, Gold MS. Suicide risk associated with drug and alcohol dependence. J Addict Dis. 1991;10(3):49-61. doi: 10.1300/J069v10n03_06. PMID: 1932152.

RISK FACTORS FOR SUICIDAL IDEATION

- Reduced meaningful leisure time
- Feelings of depression
- Feeling socially excluded
- Grief / Loss
- Men are 4 times more likely to die from suicide
- ACE's

RISK FACTORS FOR DRUG USE

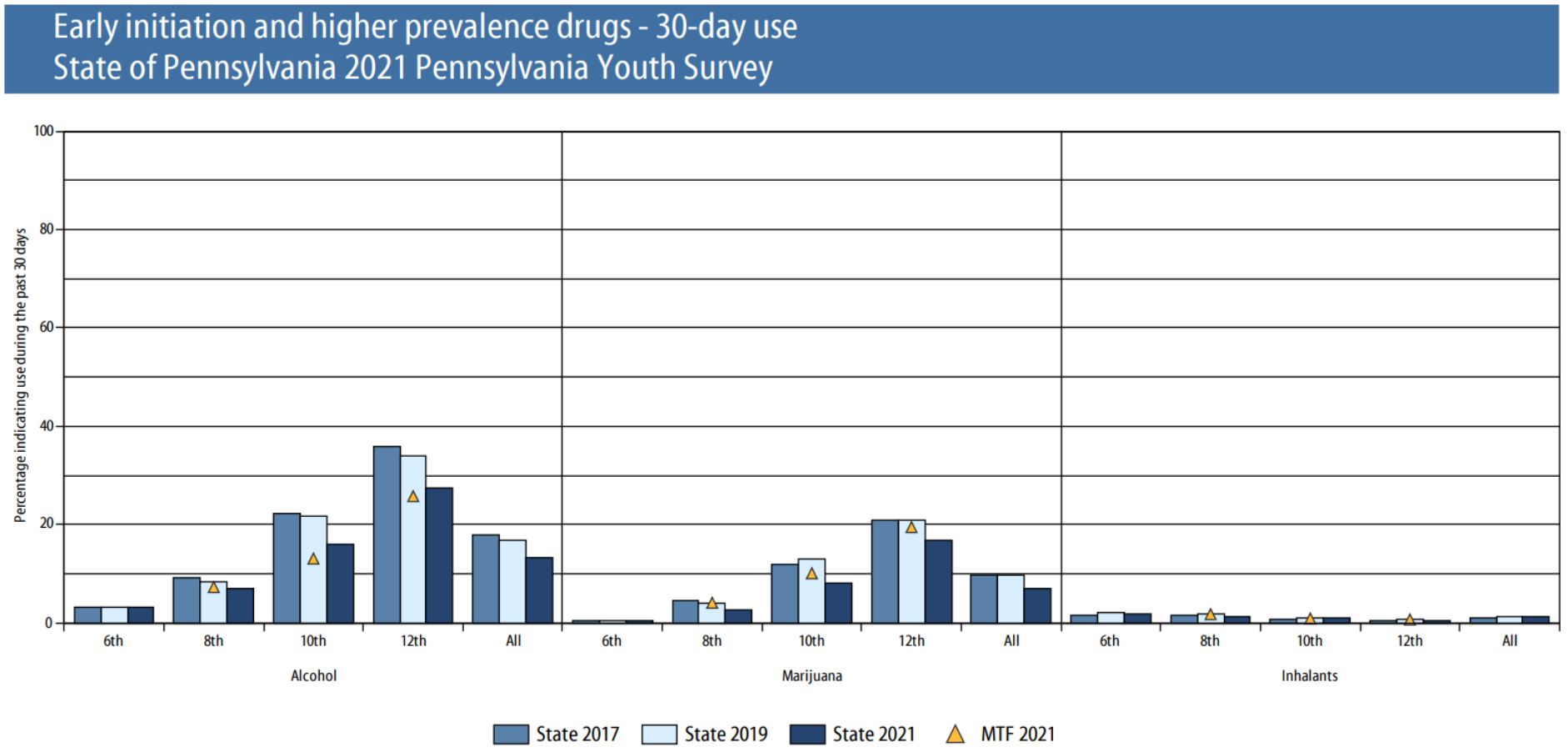
- Lack of access to meaningful leisure time / activities
- Feelings of depression
- Alienation from peers / family
- Grief / Loss
- Men are twice as likely to have SUD's
- ACE's

Potentially traumatic events that occur in childhood. ACEs can include violence, abuse, and growing up in a family with mental health or substance use problems. LINK

Strupp J, Ehmann C, Galushko M, Bücken R, Perrar KM, Hamacher S, Pfaff H, Voltz R, Golla H. Risk Factors for Suicidal Ideation in Patients Feeling Severely Affected by Multiple Sclerosis. J Palliat Med. 2016 May;19(5):523-8. doi: 10.1089/jpm.2015.0418. Epub 2016 Apr 5. PMID: 27046539.
https://pubmed.ncbi.nlm.nih.gov/27046539/

ALCOHOL & MARIJUANA IN PA (30 DAY USE)

PAYS2021 ATOD Use and Access: High prevalence/early initiation drugs



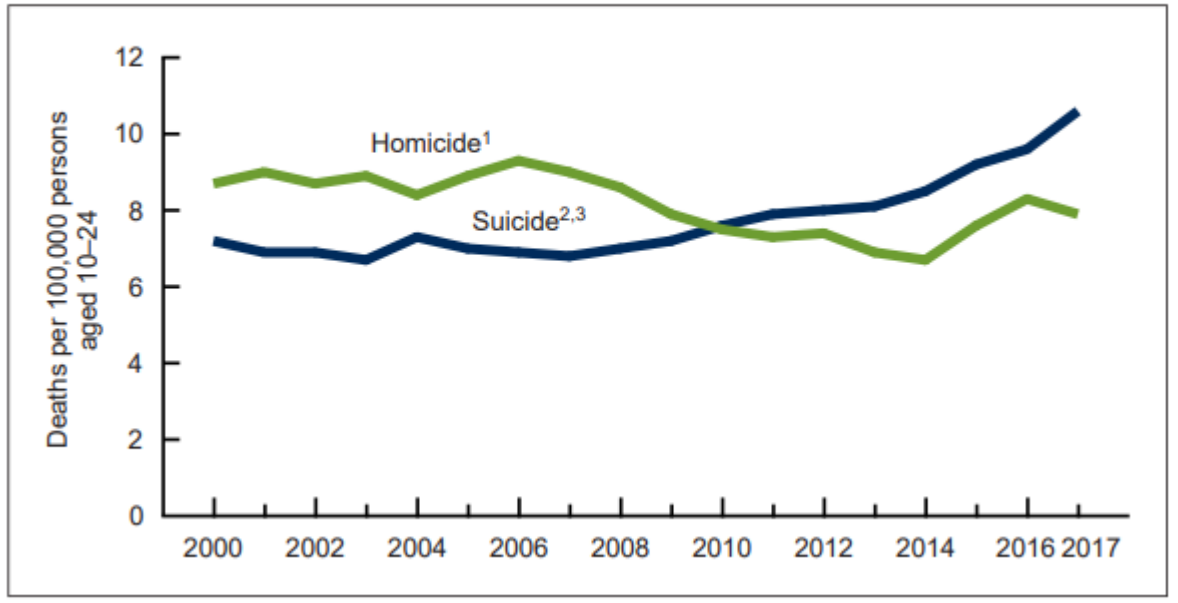
ALCOHOL, MARIJUANA & SUICIDAL IDEATION

- From 2002 to 2019, the prevalence of past-30-day alcohol use decreased:
  - 41.1 percent for 16- to 17-year-olds
  - 54.7 percent for 14- to 15-year-olds
  - 61.9 percent for 12- to 13-year-olds.

link

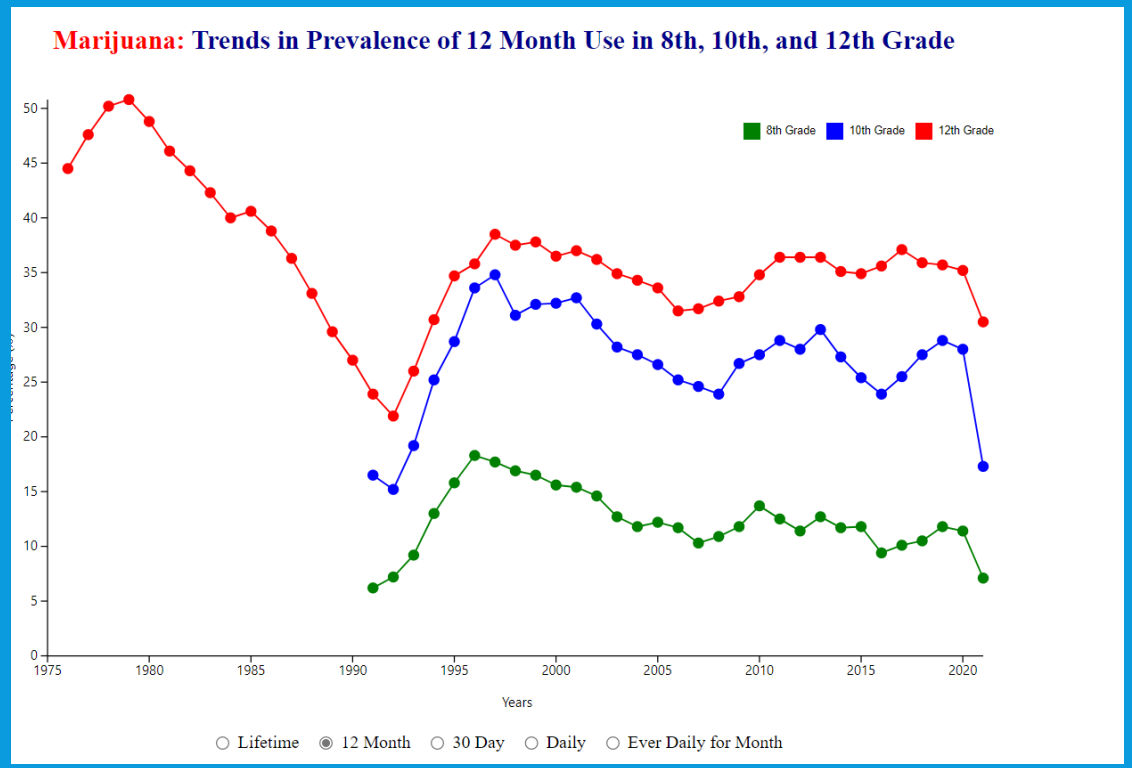
- Number of U.S. marijuana users more than doubled between 2008 and 2019
- Number of daily or near-daily marijuana users almost tripled during the same period, rising from 3.6 million to 9.8 million.
- During same period, the number of individuals who had recently suffered major depression rose from 14.5 million to 19.4 million
- During same period the number of suicidal individuals increased from 8.3 million to 12 million
- Suicide rates increased 36% between 2000-2018

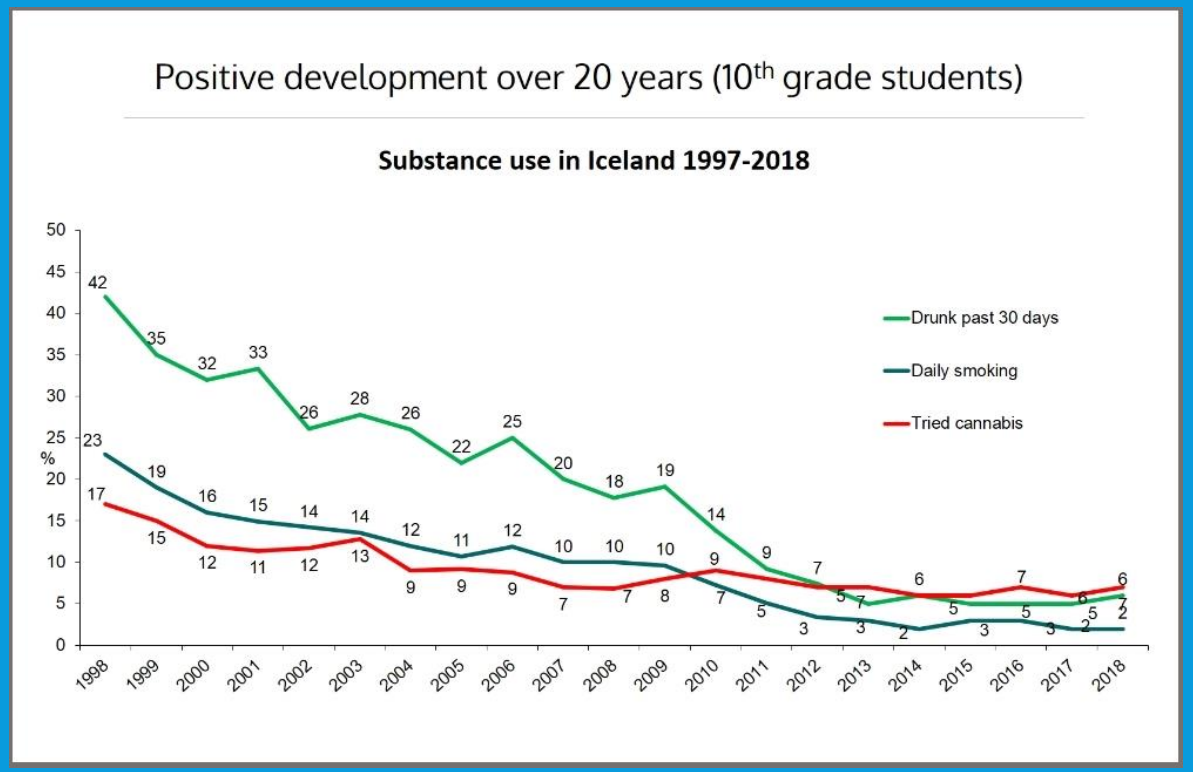
Figure 1. Suicide and homicide death rates among persons aged 10–24: United States, 2000–2017



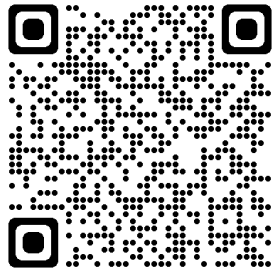
https://www.cdc.gov/nchs/data/databriefs/db352-h.pdf

MONITORING THE FUTURE

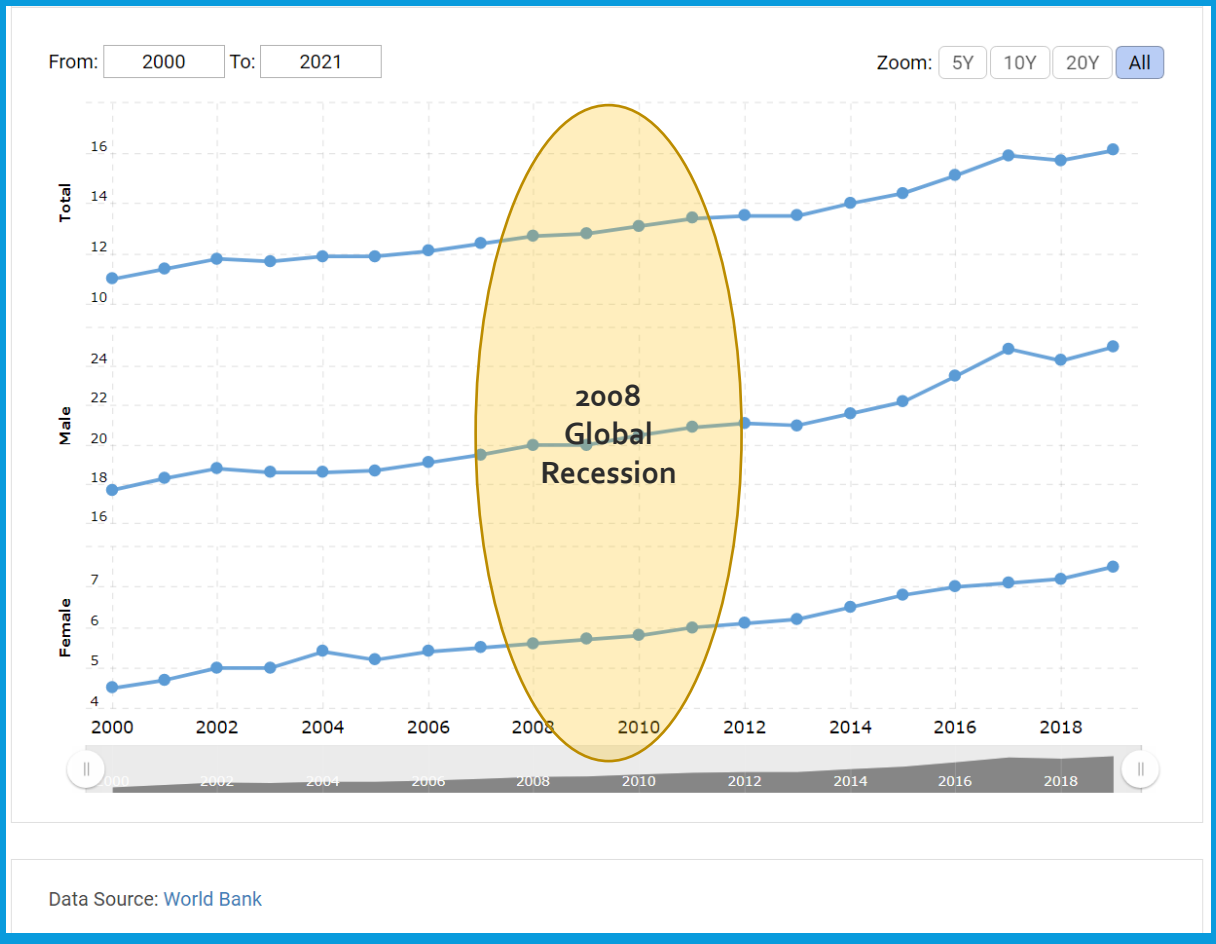




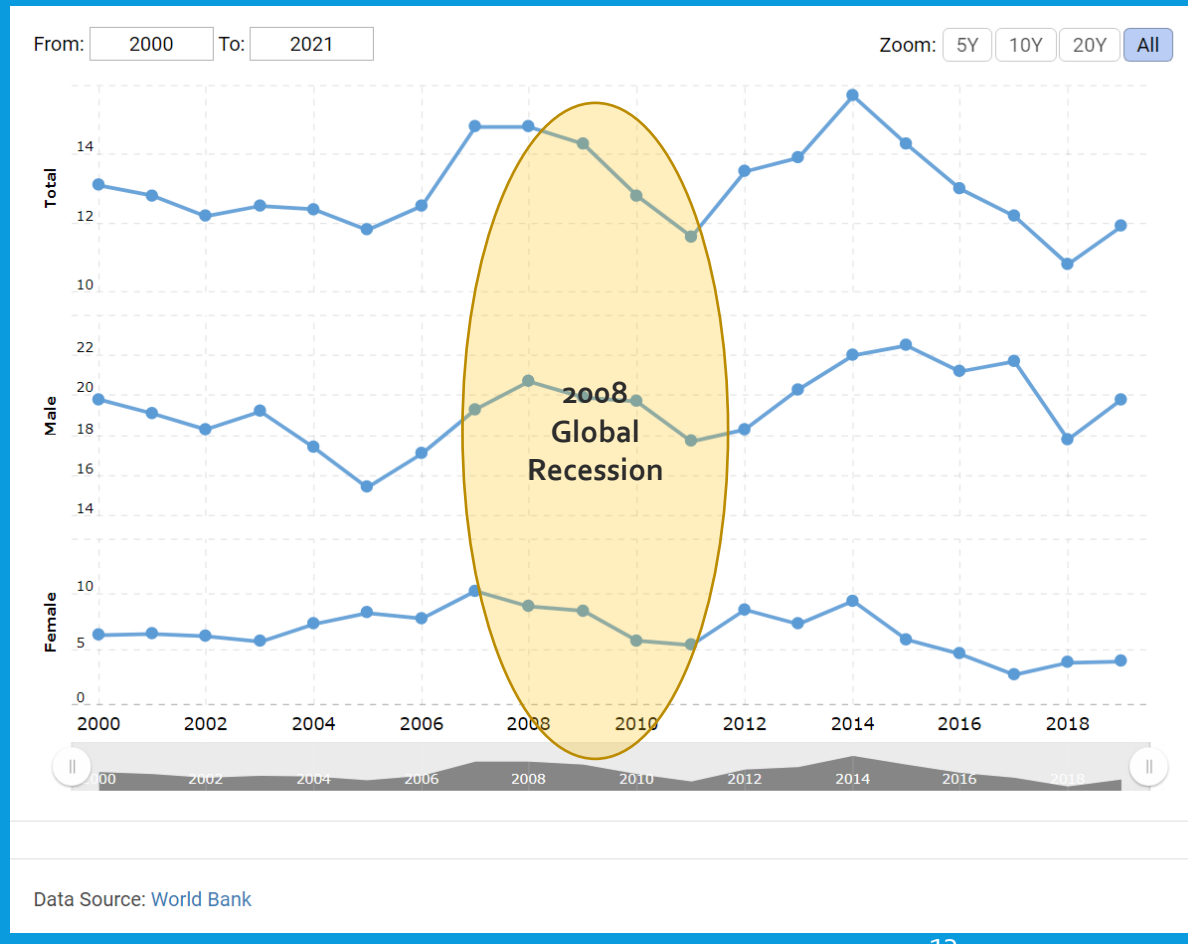
US SUICIDE RATE



ICELAND SUICIDE RATE



Data Source: World Bank



Data Source: World Bank

MARIJUANA & SUICIDAL IDEATION

Dr. Nora Volkow

Director of the National Institute on Drug Abuse (NIDA)

Study: Associations of Suicidality Trends With Cannabis Use as a Function of Sex and Depression Status

Conclusion of study: From 2008 to 2019, suicidal ideation, plan, and attempt increased 40% to 60% over increases ascribed to cannabis use and associated major depressive episode (MDE).

During the past decade, cannabis use among US adults has increased markedly, with a parallel increase in suicidality (ideation, plan, attempt, and death).

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8220498/#:~:text=JAMA%20Netw%20Open.%202021%20Jun%3B%204%20%286%29%3A%20e2113025.,Jun%2022.%20doi%3A%2010.1001%2Fjamanetworkopen.2021.13025%20PMCID%3A%20PMC8220498%20PMID%3A%2034156452

MARIJUANA & SUICIDAL IDEATION

- Results from same study shows that amongst individuals not experiencing depression
  - 14% of men and 18% of women with cannabis use disorder thought about suicide, compared with 4% for either sex not diagnosed with problematic pot use.
  - Nearly 9% of men and 13% of women who were daily or near-daily users thought about suicide, compared with 6.5% of men and 9% of women who were occasional users and 3% of both sexes who were non-users.

MARIJUANA & SUICIDAL IDEATION

- Results from same study amongst individuals experiencing depression
  - 51% of men and 57% of women with cannabis use disorder thought about suicide, compared with about 40% for either sex not diagnosed with problematic pot use.
  - 56% of men and 55% of women who were daily or near-daily users thought about suicide, compared with 43.5% of men and 47% of women who were occasional users and 38% of men and 34% of women who were non-users.

QUESTION

Are the individuals turning to marijuana as self medication and form of relief from depression

Or

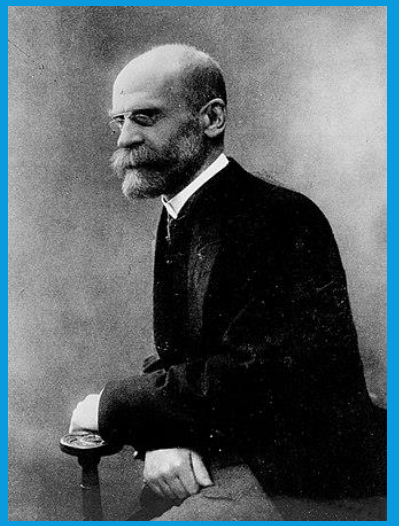
Are the individuals use of marijuana eliciting thoughts of suicide and attempts.

POSSIBLE ANSWER

- Perhaps it is a combination of substance use, social and cultural issues that lead to thoughts of suicide?
  - Perhaps a little off topic…… electronic devices?

SOCIAL / CULTURAL PERSPECTIVE

- Emile Durkheim lived in the 1800's, his theory was that rates of suicide are based on the degree of integration (NOT forced assimilation) into social institutions and regulation within society.
  - Durkheim emphasized that the power to drive suicide is social rather than psychological. He concluded that suicide results from social turmoil or lack of social integration or social solidarity.



France's first professor of sociology.

Coined the term: "Collective Consciousness"

Altruistic suicide
Feeling overwhelmed by societies goals and beliefs.
Occurs in a highly integrated society where the needs of individuals are considered less important than the needs of society as a whole

Egoistic suicide
Feeling left out, not belonging to society . absence can lead to meaninglessness, indifference, and depression.

Anomie suicide
Moral turmoil and lack of social orientation associated with dramatic social and economic upheavals

Fatalistic suicide
Feeling over-regulated, individuals' future is constantly hampered, and repressive discipline causes intense choking of passion.

AT RISK POPULATIONS FOR DEATH BY SUICIDE

- Attempt survivors
- Veterans
- Disaster survivors
- **Youth – 2nd leading cause of death for people between 10 to 24 !!!**
- Neurodivergent (ADHD, Spectrum Disorders, Tourette, OCD, Giftedness)
- Individuals with MH diagnosis / symptoms
- Postpartum
- Tribal populations
- Poverty
- The Black Community
- LGBTQ

AT RISK POPULATIONS FOR SUBSTANCE USE DISORDERS

- Attempt Survivors *(1)*
- Veterans
- Disaster survivors
- **Youth – Transition aged 16 -25 (***2)*
- Neurodivergent (ADHD, Spectrum Disorders, Tourette, OCD, Giftedness)
- Individuals with MH diagnosis / symptoms
- Tribal populations
- Poverty
- The Black Community
- LGBTQ

REASONS WHY PEOPLE ATTEMPT SUICIDE

- Depression
- Psychosis (hearing voices)
- Impulsivity
- Do not know how to ask for help regarding a traumatic experience
- Unemployment and legal problems
- Desire to die to avoid terminal illnesses
- Accidental (drug overdoses w/person understanding risks)

REASONS WHY PEOPLE USE DRUGS

- Depression
- Self Medication to treat MH symptoms (psychosis)
- Impulsivity / fitting in / availability
- Anxiety
- To feel good
- Legality

SUICIDALITY & CULTURE

- Weakness – Real Men don't Cry 

  - The suicide rate among males in 2020 was 4 times higher than the rate among females.
  - Misunderstanding - Stigma
    - Would anyone say that dying from cancer is an act of weakness?
    - Mental illnesses can cause people to do many things that they would never do if they were not ill !

DRUGS & CULTURE

- Reduced perceived level of harm
  - Misinformation
  - "It's a plant, not a drug"
- Right of passage accepted
- If you use certain drugs you're a "burnout", "druggy", "dreg of society"
- Medicinal use

HOW SUBSTANCE USE CONTRIBUTES TO SUICIDE RISK

Substance abuse and suicide share numerous risk factors:

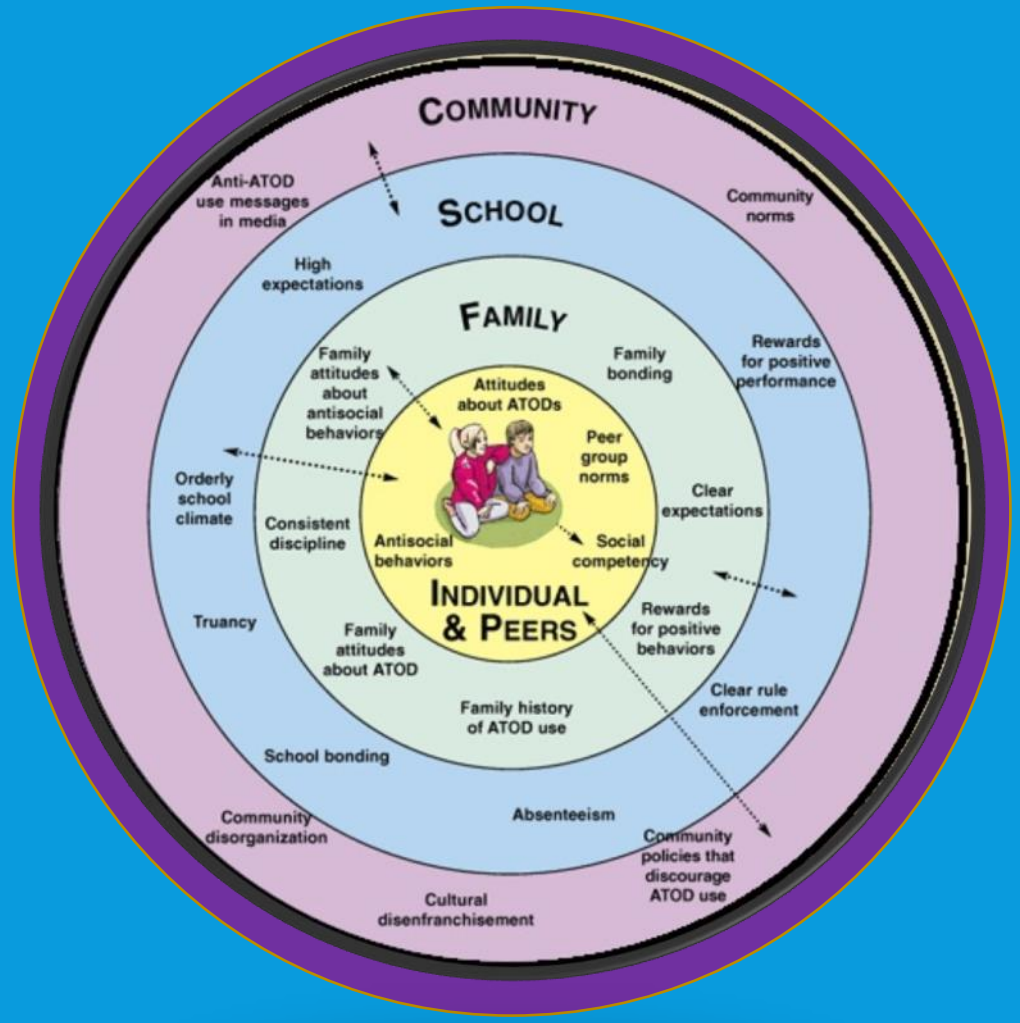
- Genetic
- Family History
- Grief/Loss
- Loneliness
- Poverty
- Unemployment
- Physical Abuse
- Neglect
- Stress
- Trauma
- Abuse (physical / emotional)
- ACE's - https://www.cdc.gov/violenceprevention/aces/index.html

DELAYING OR ELIMINATING SUBSTANCE USE INCREASE PROTECTIVE FACTORS

Substance abuse and suicide share numerous protective factors:

- Safe, stable environments free from violence
- Services for single parents (health / child-care)
- Community / school collaboration
- Healthy role models
- Access to numerous healthy activities (coping mechanisms)
  - Art
  - Culture
  - Sports
  - Academia
- Positive social norms
- Intervention services

ECOLOGICAL MODEL



- Identify Risk Factors & Protective Factors
  - Local policy
  - Norms
  - Resources
- Give individuals so many positive resources or "protective factors" that they will counter the risk factors
  - Opportunities
  - Skills
  - Recognition
- Replace "Risk Factors"
- Give individuals options!!

DOPAMINE PRODUCTION

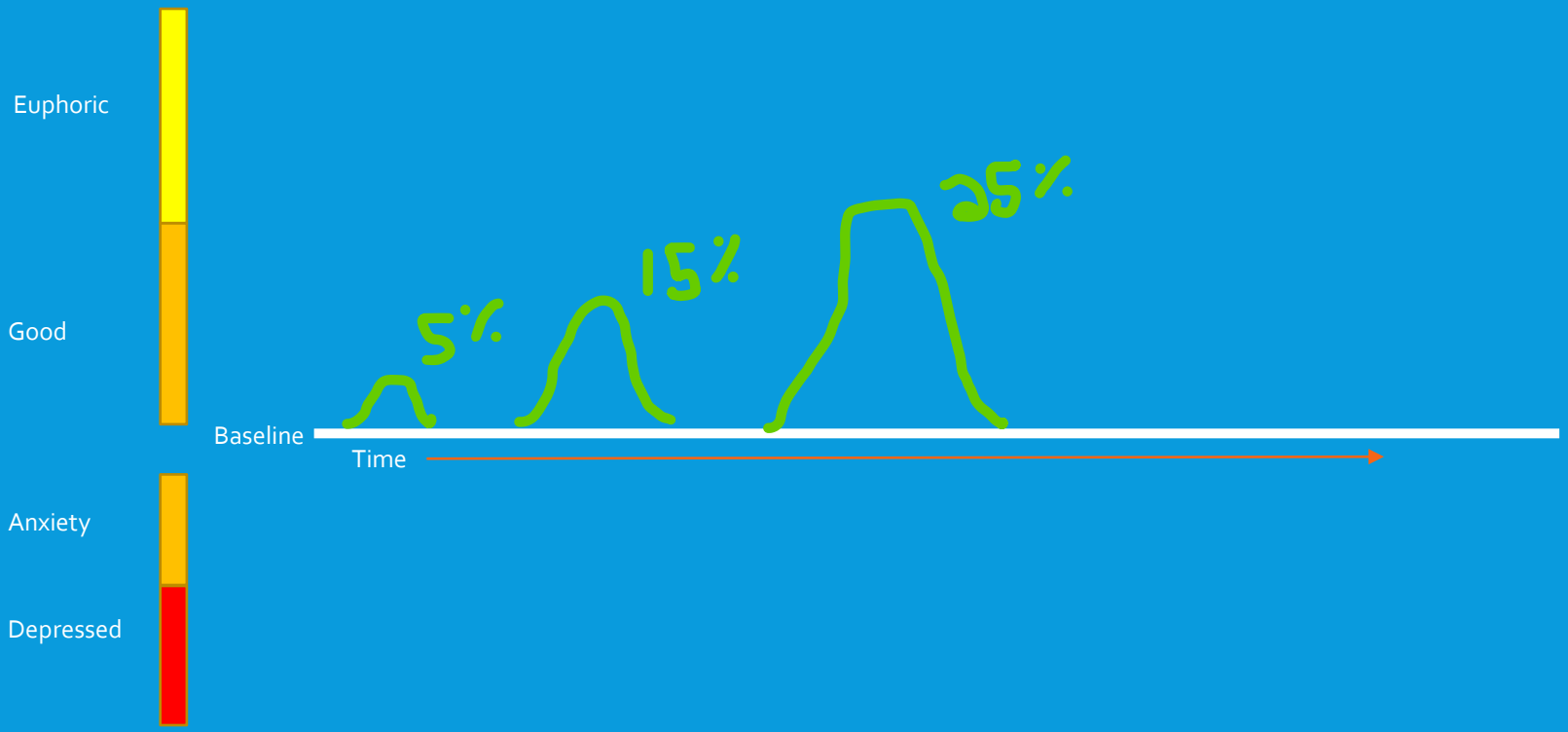
Dopamine system dysfunction is linked to certain symptoms of depression, such as low motivation.

Serotonin is involved in how you process your emotions, which can affect your overall mood.

Dopamine acts on neurons allowing for excess serotonin to be released

Some of the main symptoms of depression include:

- low motivation
- feeling helpless
- a loss of interest in things that used to interest you

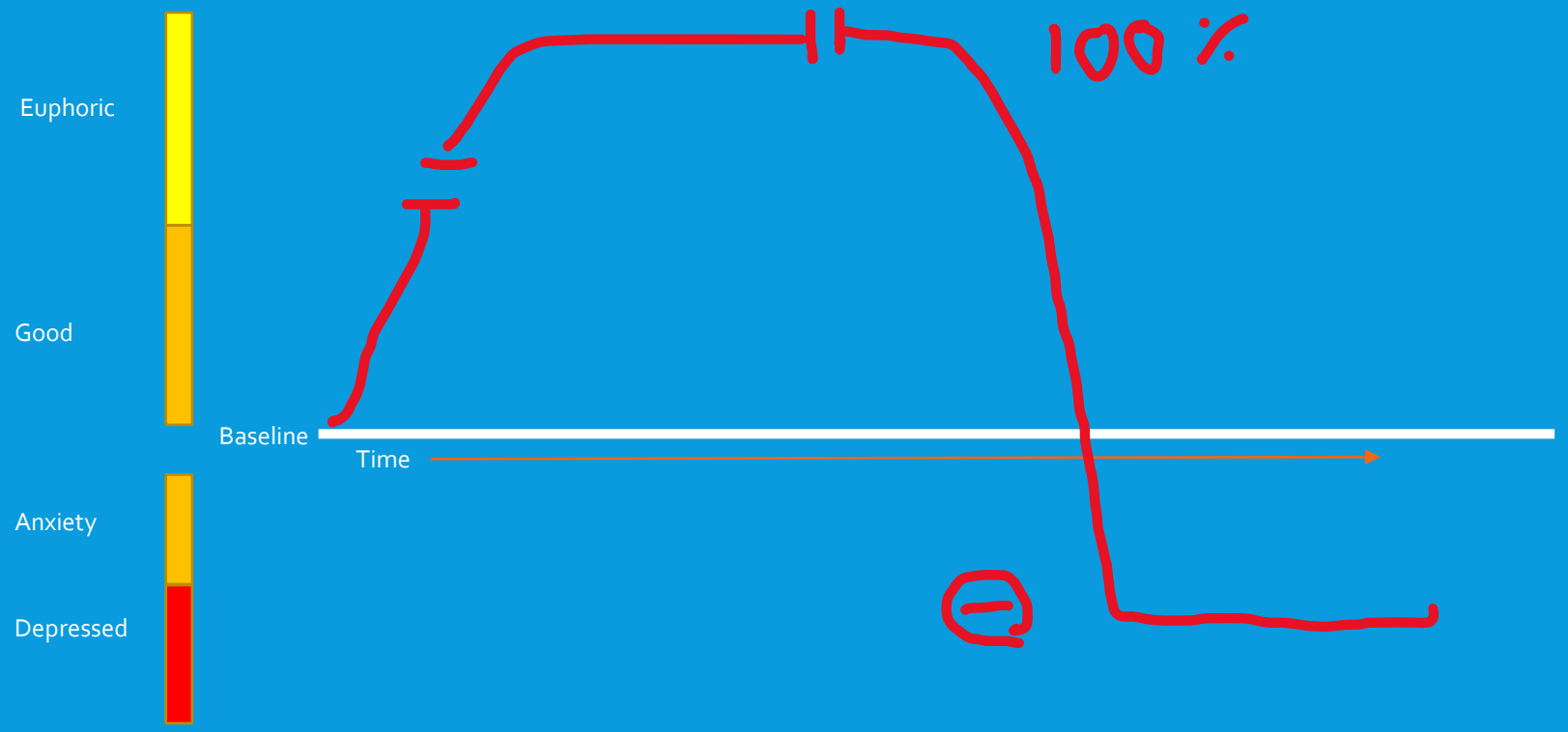


EXERCISE (DOPAMINE) TX FOR DEPRESSION

- SSRI's or Exercise?
  - 4 month study:
    - Aerobic exercise
    - Sertraline therapy
    - Combination of exercise and sertraline.
  - After 4 months patients in all three groups exhibited significant improvement; the proportion of remitted participants
  - After 10 months, however, remitted subjects in the exercise group had significantly lower relapse rates than subjects in the medication group.
  - Exercising on one's own during the follow-up period was associated with a reduced
- Conclusions: Among individuals with MDD, exercise therapy is feasible and is associated with significant therapeutic benefit, especially if exercise is continued over time probability of depression diagnosis at the end of that period

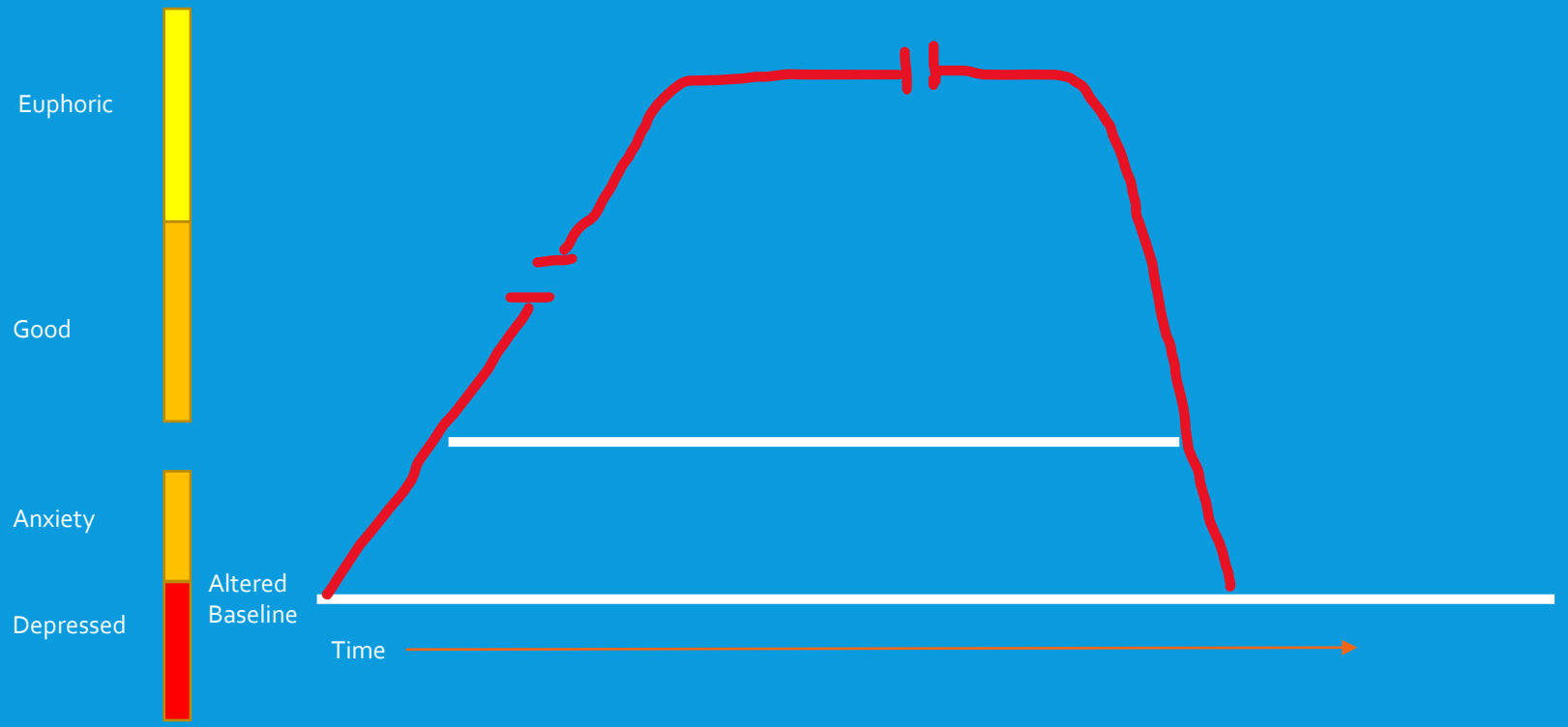
Exercise treatment for major depression: maintenance of therapeutic benefit at 10 months - PubMed (nih.gov)

DEVELOPING ATOD INDUCED DEPRESSION

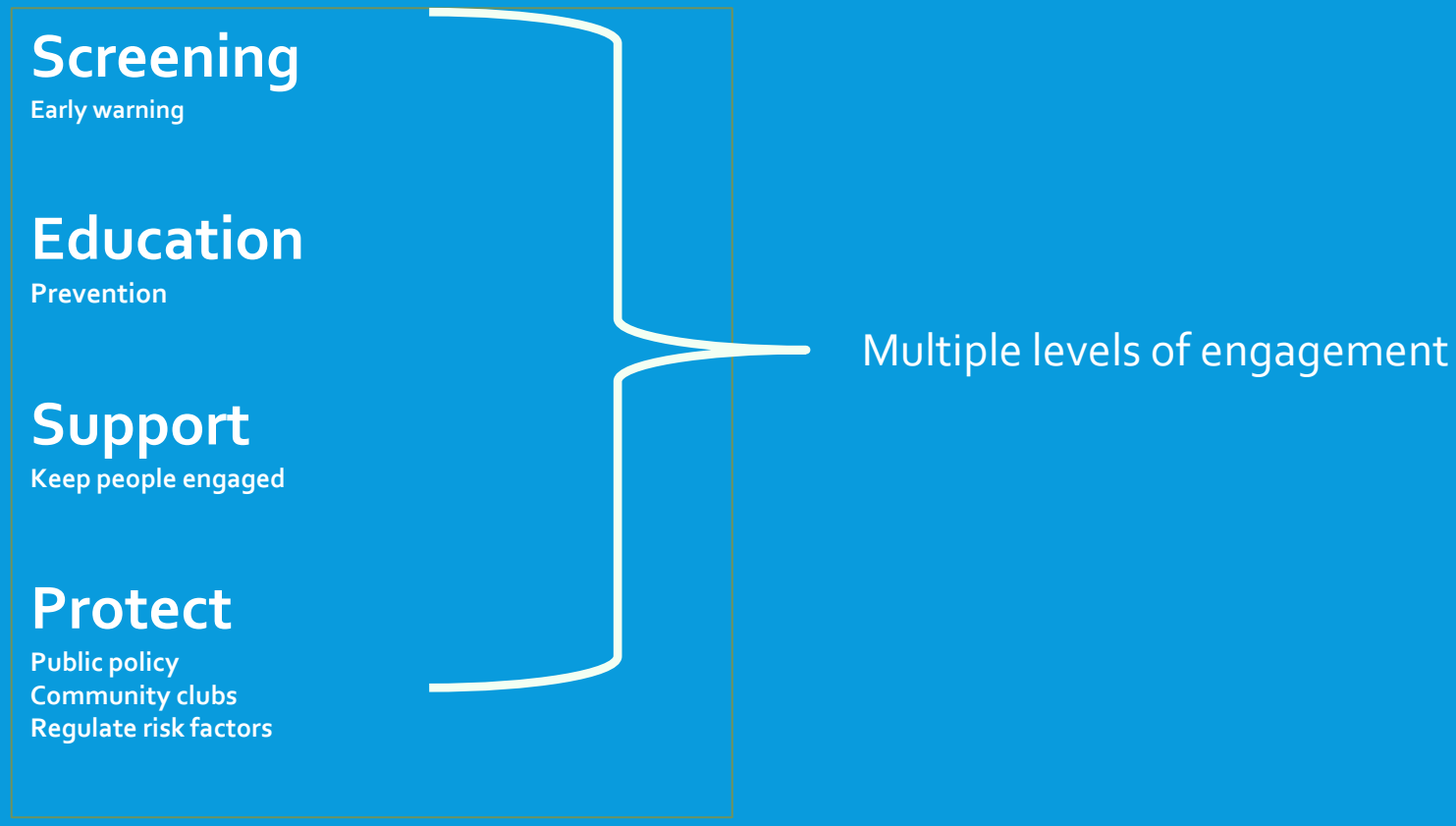


Note: Depression isn't the same as having suicidal thoughts
However, depression is the leading risk factor for suicidal thoughts.

SELF MEDICATING SYMPTOMS OF DEPRESSION WITH ATOD



ADDRESSING THE CHALLENGE



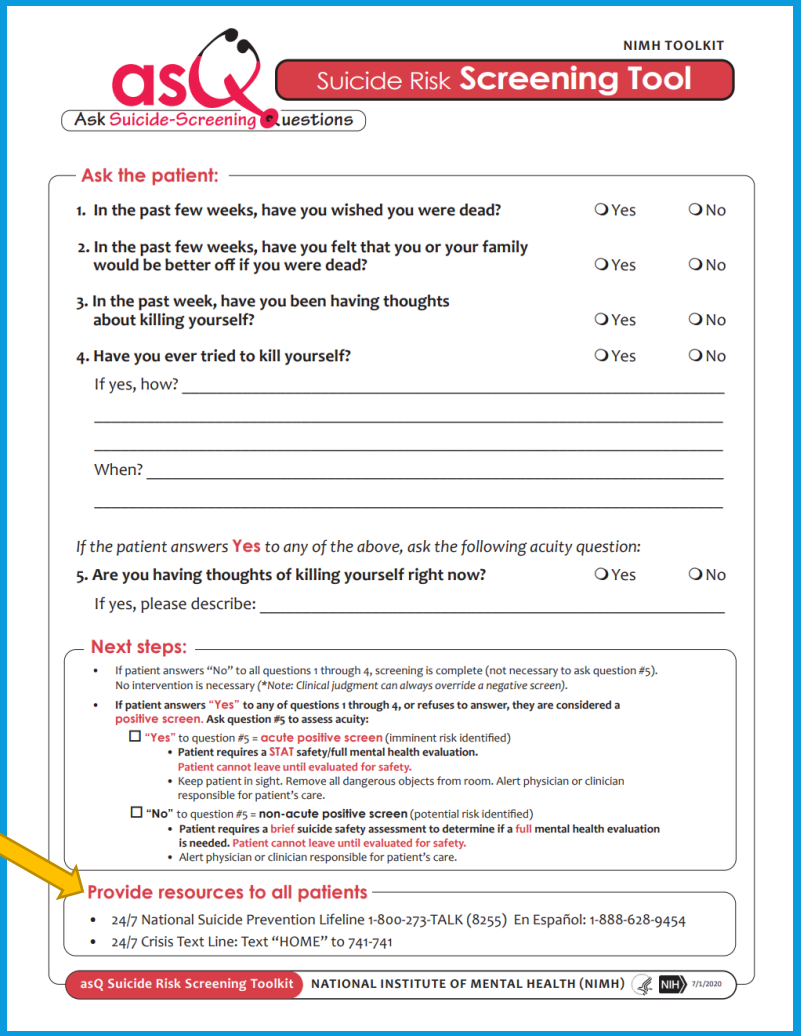
ADDRESSING THE CHALLENGE

SBIRT

Screening Tools:

- Ask Suicide-Screening Questions (ASQ) tool is a set of four brief suicide screening questions that takes 20 seconds to administer.

988



NIMH TOOLKIT

asQ Suicide Risk Screening Tool

Ask Suicide-Screening Questions

Ask the patient:

1. **In the past few weeks, have you wished you were dead?** ❍ Yes ❍ No
2. **In the past few weeks, have you felt that you or your family would be better off if you were dead?** ❍ Yes ❍ No
3. **In the past week, have you been having thoughts about killing yourself?** ❍ Yes ❍ No
4. **Have you ever tried to kill yourself?** ❍ Yes ❍ No

If yes, how? _____

When? _____

If the patient answers Yes to any of the above, ask the following acuity question:

5. **Are you having thoughts of killing yourself right now?** ❍ Yes ❍ No

If yes, please describe: _____

Next steps:

- If patient answers "No" to all questions 1 through 4, screening is complete (not necessary to ask question #5). No intervention is necessary (**Note: Clinical judgment can always override a negative screen*).
- **If patient answers "Yes" to any of questions 1 through 4, or refuses to answer, they are considered a positive screen. Ask question #5 to assess acuity:**
  - ☐ "Yes" to question #5 = **acute positive screen** (imminent risk identified)
    - **Patient requires a STAT safety/full mental health evaluation. Patient cannot leave until evaluated for safety.**
    - Keep patient in sight. Remove all dangerous objects from room. Alert physician or clinician responsible for patient's care.
  - ☐ "No" to question #5 = **non-acute positive screen** (potential risk identified)
    - **Patient requires a brief suicide safety assessment to determine if a full mental health evaluation is needed. Patient cannot leave until evaluated for safety.**
    - Alert physician or clinician responsible for patient's care.

Provide resources to all patients

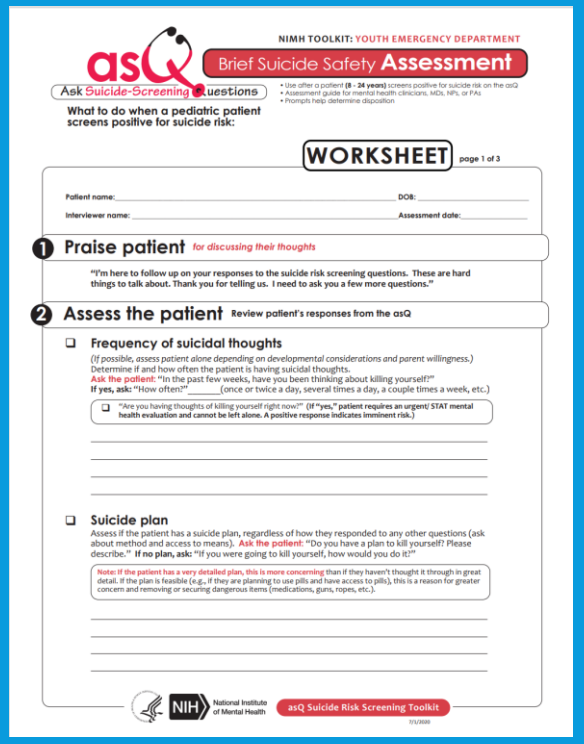
- 24/7 National Suicide Prevention Lifeline 1-800-273-TALK (8255) En Español: 1-888-628-9454
- 24/7 Crisis Text Line: Text "HOME" to 741-741

asQ Suicide Risk Screening Toolkit NATIONAL INSTITUTE OF MENTAL HEALTH (NIMH) NIH 7/1/2020

ADDRESSING THE CHALLENGE

What to do when a pediatric patient screens positive for suicide risk?

Assessment!


NIMH TOOLKIT: YOUTH EMERGENCY DEPARTMENT

asQ Brief Suicide Safety Assessment

Ask Suicide-Screening Questions

- Use after a patient (8 - 24 years) screens positive for suicide risk on the asQ
- Assessment guide for mental health clinicians, MDs, NPs, or PAs
- Prompts help determine disposition

What to do when a pediatric patient screens positive for suicide risk:

WORKSHEET page 1 of 3

Patient name: DOB:

Interviewer name: Assessment date:

1 Praise patient *for discussing their thoughts*

"I'm here to follow up on your responses to the suicide risk screening questions. These are hard things to talk about. Thank you for telling us. I need to ask you a few more questions."

2 Assess the patient Review patient's responses from the asQ

❑ Frequency of suicidal thoughts

(If possible, assess patient alone depending on developmental considerations and parent willingness.)
Determine if and how often the patient is having suicidal thoughts.
Ask the patient: "In the past few weeks, have you been thinking about killing yourself?"
If yes, ask: "How often?" _____ (once or twice a day, several times a day, a couple times a week, etc.)

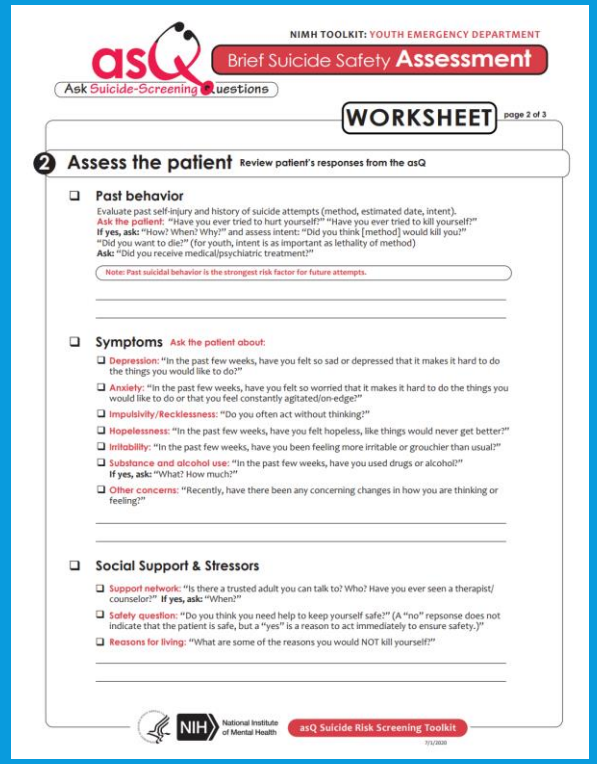
❑ "Are you having thoughts of killing yourself right now?" **(If "yes," patient requires an urgent/STAT mental health evaluation and cannot be left alone. A positive response indicates imminent risk.)**

❑ Suicide plan

Assess if the patient has a suicide plan, regardless of how they responded to any other questions (ask about method and access to means). **Ask the patient:** "Do you have a plan to kill yourself? Please describe." **If no plan, ask:** "If you were going to kill yourself, how would you do it?"

Note: If the patient has a very detailed plan, this is more concerning than if they haven't thought it through in great detail. If the plan is feasible (e.g., if they are planning to use pills and have access to pills), this is a reason for greater concern and removing or securing dangerous items (medications, guns, ropes, etc.).

NIH National Institute of Mental Health — asQ Suicide Risk Screening Toolkit


NIMH TOOLKIT: YOUTH EMERGENCY DEPARTMENT

asQ Brief Suicide Safety Assessment

Ask Suicide-Screening Questions

WORKSHEET page 2 of 3

2 Assess the patient Review patient's responses from the asQ

❑ Past behavior

Evaluate past self-injury and history of suicide attempts (method, estimated date, intent).
Ask the patient: "Have you ever tried to hurt yourself?" "Have you ever tried to kill yourself?"
If yes, ask: "How? When? Why?" and assess intent: "Did you think [method] would kill you?" "Did you want to die?" (for youth, intent is as important as lethality of method)
Ask: "Did you receive medical/psychiatric treatment?"

Note: Past suicidal behavior is the strongest risk factor for future attempts.

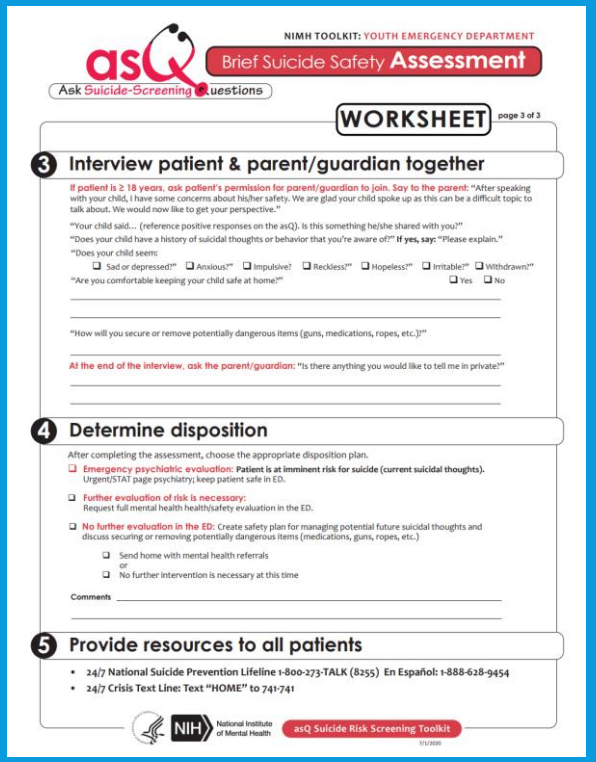
❑ Symptoms Ask the patient about:

- ❑ **Depression:** "In the past few weeks, have you felt so sad or depressed that it makes it hard to do the things you would like to do?"
- ❑ **Anxiety:** "In the past few weeks, have you felt so worried that it makes it hard to do the things you would like to do or that you feel constantly agitated/on-edge?"
- ❑ **Impulsivity/Recklessness:** "Do you often act without thinking?"
- ❑ **Hopelessness:** "In the past few weeks, have you felt hopeless, like things would never get better?"
- ❑ **Irritability:** "In the past few weeks, have you been feeling more irritable or grouchier than usual?"
- ❑ **Substance and alcohol use:** "In the past few weeks, have you used drugs or alcohol?" **If yes, ask:** "What? How much?"
- ❑ **Other concerns:** "Recently, have there been any concerning changes in how you are thinking or feeling?"

❑ Social Support & Stressors

- ❑ **Support network:** "Is there a trusted adult you can talk to? Who? Have you ever seen a therapist/counselor?" **If yes, ask:** "When?"
- ❑ **Safety question:** "Do you think you need help to keep yourself safe?" (A "no" repsonse does not indicate that the patient is safe, but a "yes" is a reason to act immediately to ensure safety.)"
- ❑ **Reasons for living:** "What are some of the reasons you would NOT kill yourself?"

NIH National Institute of Mental Health — asQ Suicide Risk Screening Toolkit


NIMH TOOLKIT: YOUTH EMERGENCY DEPARTMENT

asQ Brief Suicide Safety Assessment

Ask Suicide-Screening Questions

WORKSHEET page 3 of 3

3 Interview patient & parent/guardian together

If patient is ≥ 18 years, ask patient's permission for parent/guardian to join. Say to the parent: "After speaking with your child, I have some concerns about his/her safety. We are glad your child spoke up as this can be a difficult topic to talk about. We would now like to get your perspective."

"Your child said... (reference positive responses on the asQ). Is this something he/she shared with you?"

"Does your child have a history of suicidal thoughts or behavior that you're aware of?" **If yes, say:** "Please explain."

"Does your child seem:

❑ Sad or depressed?" ❑ Anxious?" ❑ Impulsive? ❑ Reckless?" ❑ Hopeless?" ❑ Irritable?" ❑ Withdrawn?"

"Are you comfortable keeping your child safe at home?" ❑ Yes ❑ No

"How will you secure or remove potentially dangerous items (guns, medications, ropes, etc.)?"

At the end of the interview, ask the parent/guardian: "Is there anything you would like to tell me in private?"

4 Determine disposition

After completing the assessment, choose the appropriate disposition plan.

❑ **Emergency psychiatric evaluation: Patient is at imminent risk for suicide (current suicidal thoughts).** Urgent/STAT page psychiatry; keep patient safe in ED.

❑ **Further evaluation of risk is necessary:** Request full mental health health/safety evaluation in the ED.

❑ **No further evaluation in the ED:** Create safety plan for managing potential future suicidal thoughts and discuss securing or removing potentially dangerous items (medications, guns, ropes, etc.)

- ❑ Send home with mental health referrals
- or
- ❑ No further intervention is necessary at this time

Comments _____

5 Provide resources to all patients

- 24/7 National Suicide Prevention Lifeline 1-800-273-TALK (8255) En Español: 1-888-628-9454
- 24/7 Crisis Text Line: Text "HOME" to 741-741

NIH National Institute of Mental Health — asQ Suicide Risk Screening Toolkit

ADDRESSING THE CHALLENGE

Treating Mental Illness

Concurrent Treatment

"No Wrong Door"!

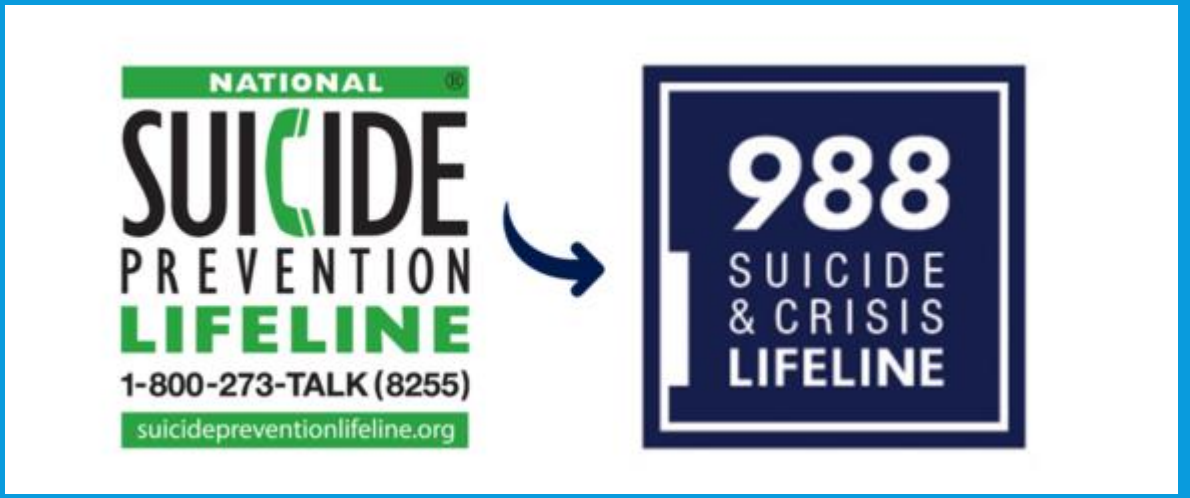
Treating Substance Use Disorders

Reduced suicidal ideation

- Reduced or discontinued substance use
- Improvement in psychiatric symptoms and functioning
- Increased chance for successful treatment and recovery for both disorders
- Improved quality of life
- Decreased hospitalization
- Reduced medication interactions
- Increased housing stability
- Fewer arrests

988

- Leading cause of death in the US
- July 16th 2022 National Suicide Hotline - 988 is a new 911 for suicide!
  - Reach a counselor via phone
  - Challenges
    - Infrastructure shortages
    - Funding
      - Medicaid expansion needed
      - Only 5 states have implemented funding
        - Washington
        - Nevada
        - Colorado
        - Virginia
        - Wyoming
  - Suicidepreventionlifeline.org https://988lifeline.org/



QUESTIONS & ANSWERS

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