Great Lakes (HHS Region 5)

ATTC

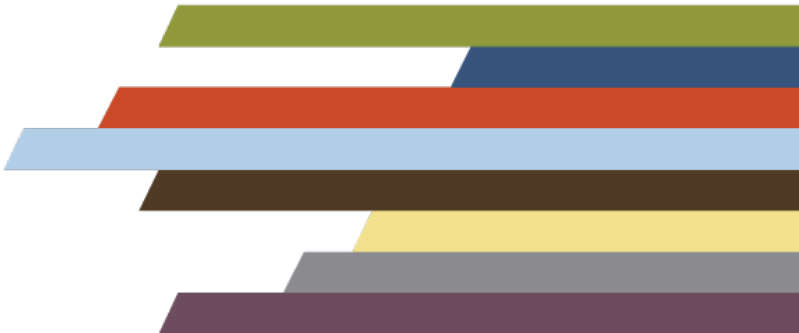
Addiction Technology Transfer Center Network

Funded by Substance Abuse and Mental Health Services Administration

SBIRT Training

Great Lakes-Addiction Technology Transfer Center

Great Lakes-Mental Health Technology Transfer Center



Brought To You By:

About Us

- The Great Lakes ATTC, MHTTC, and PTTC are funded by the Substance Abuse and Mental Health Services Administration (SAMHSA).

Disclaimer

Date and year

Screening

Brief Intervention &

Referral to Treatment

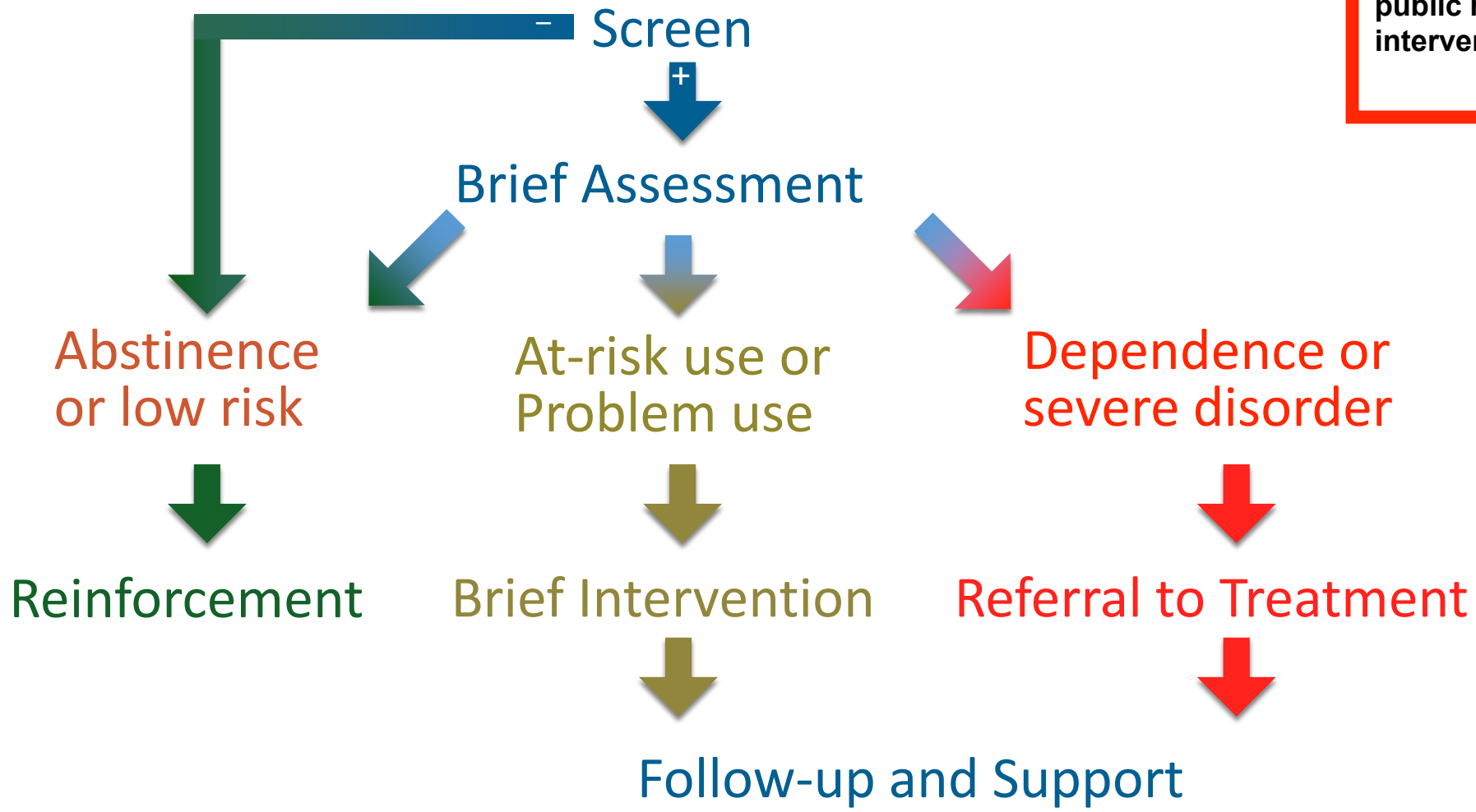
Objectives for today;

- Describe from a clinical perspective how and why to administer and score population appropriate, sensitive and specific screening tools for the identification of SUD’s
- Recognize the value of universal screening for SUD’s and other behavioral health issues as a public health approach

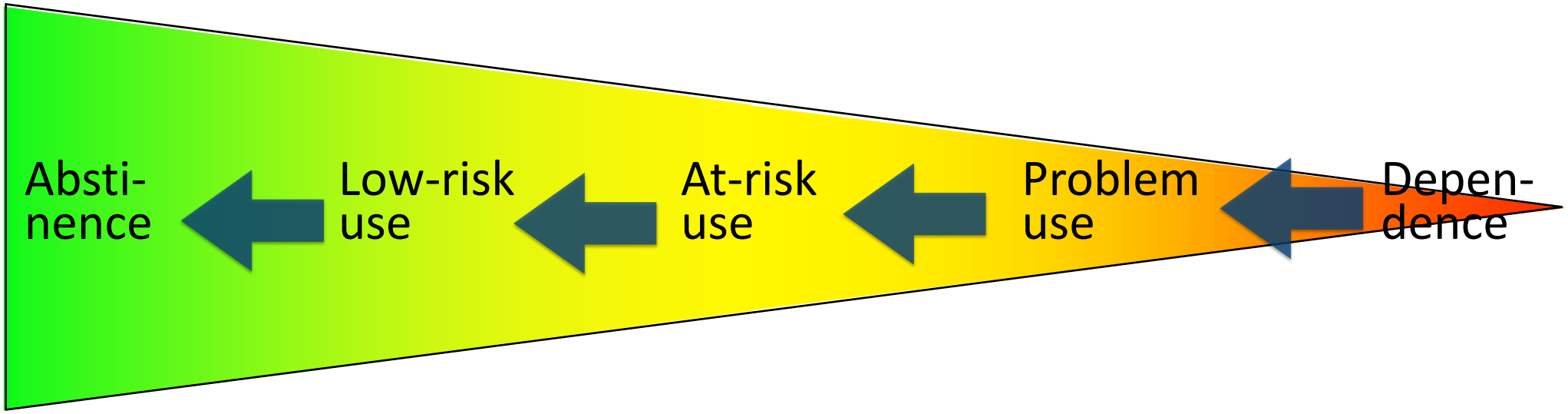
SBIRT Overview

A one-on-one clinical prevention service

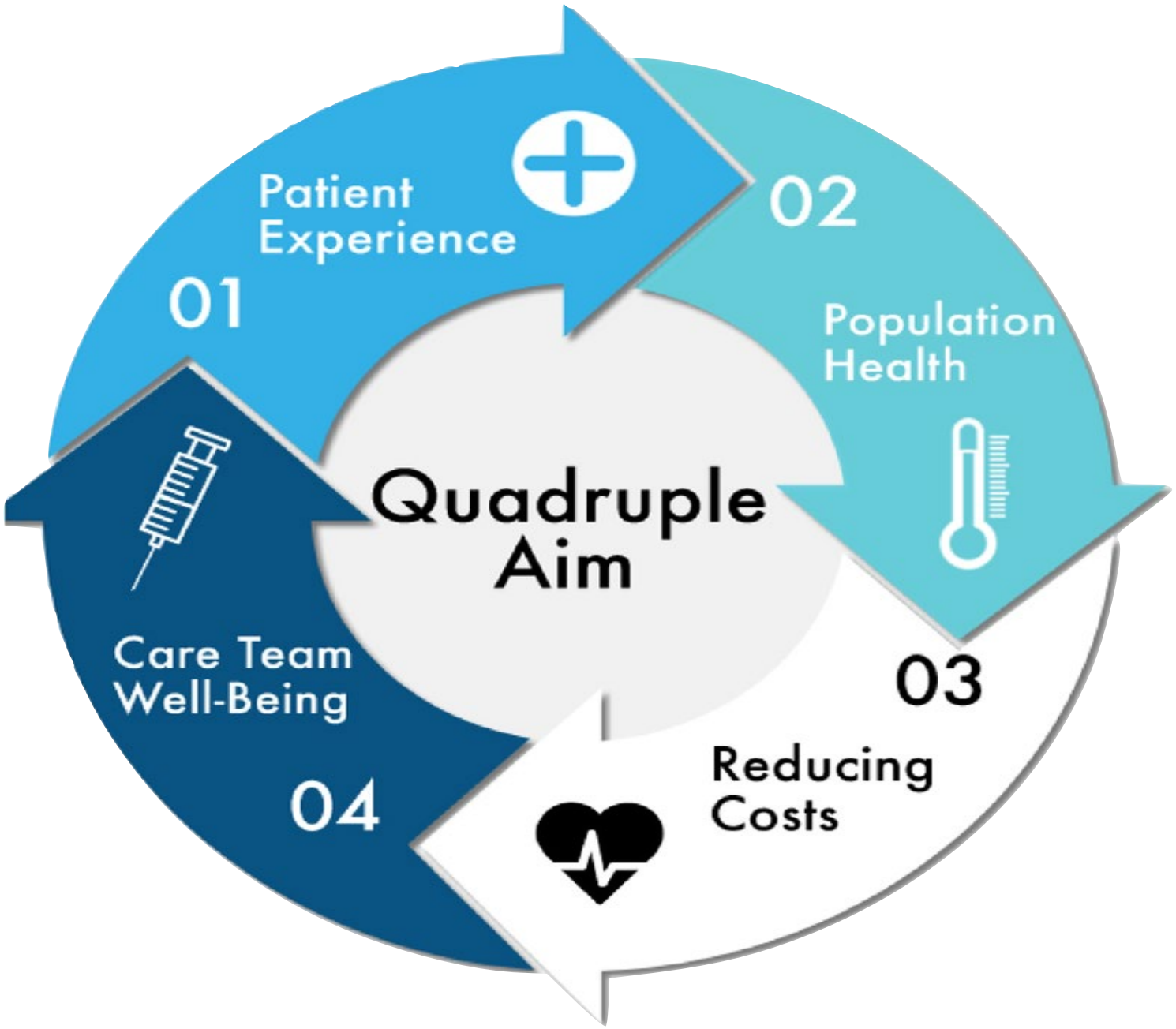
When delivered universally, a population/ public health intervention



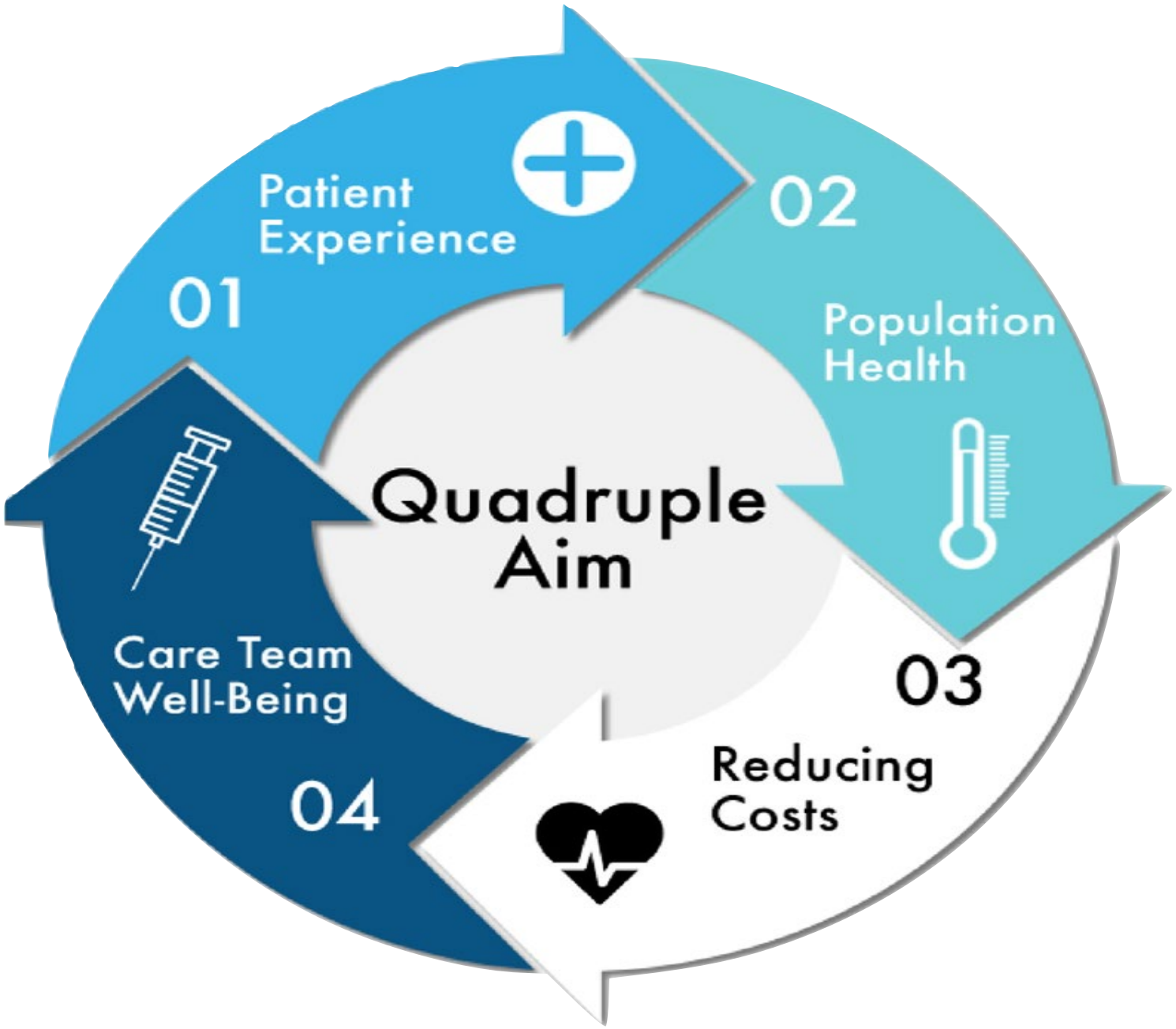
The Goal of SBIRT



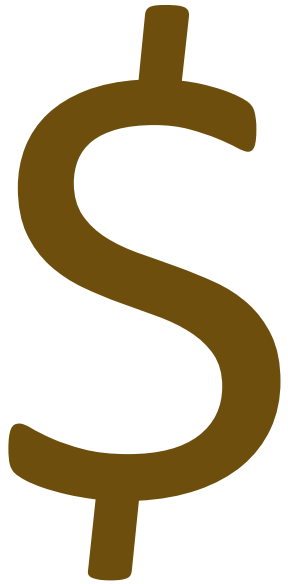
Move each patient and client and entire patient and client populations to the left as far as possible


Patient Experience
01
02
Population Health
Quadruple Aim
Care Team Well-Being
04
03
Reducing Costs


WHAT'S IN IT FOR ME?



Now More Than Ever!



CMS
CENTERS FOR MEDICARE & MEDICAID SERVICES

https://go.cms.gov/2Yyy0sX

Time to ask.
WIPHL
WISCONSIN INITIATIVE to PROMOTE HEALTHY LIFESTYLES

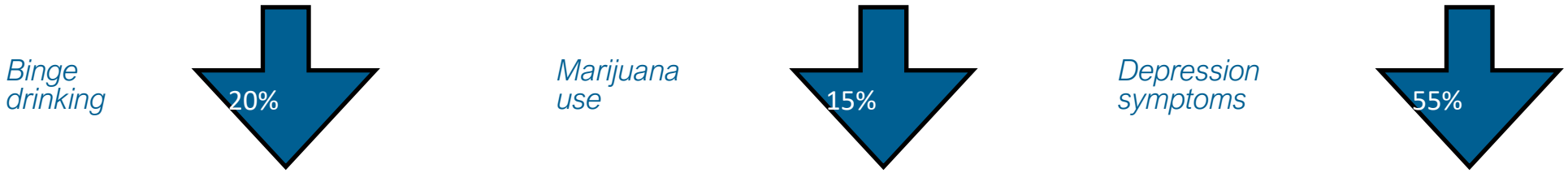
School of Medicine and Public Health
UNIVERSITY OF WISCONSIN–MADISON

Wisconsin Department of Health Services

Wisconsin Medical Society
Your Doctor. Your Health.

Between 2006 and 2011

- Helped 33 sites screen >110,000 patients and deliver >20,000 interventions
- Documented high patient satisfaction: 4.3 to 4.9 on a 5-point scale
- Attained substantial improvements in behavioral outcomes:



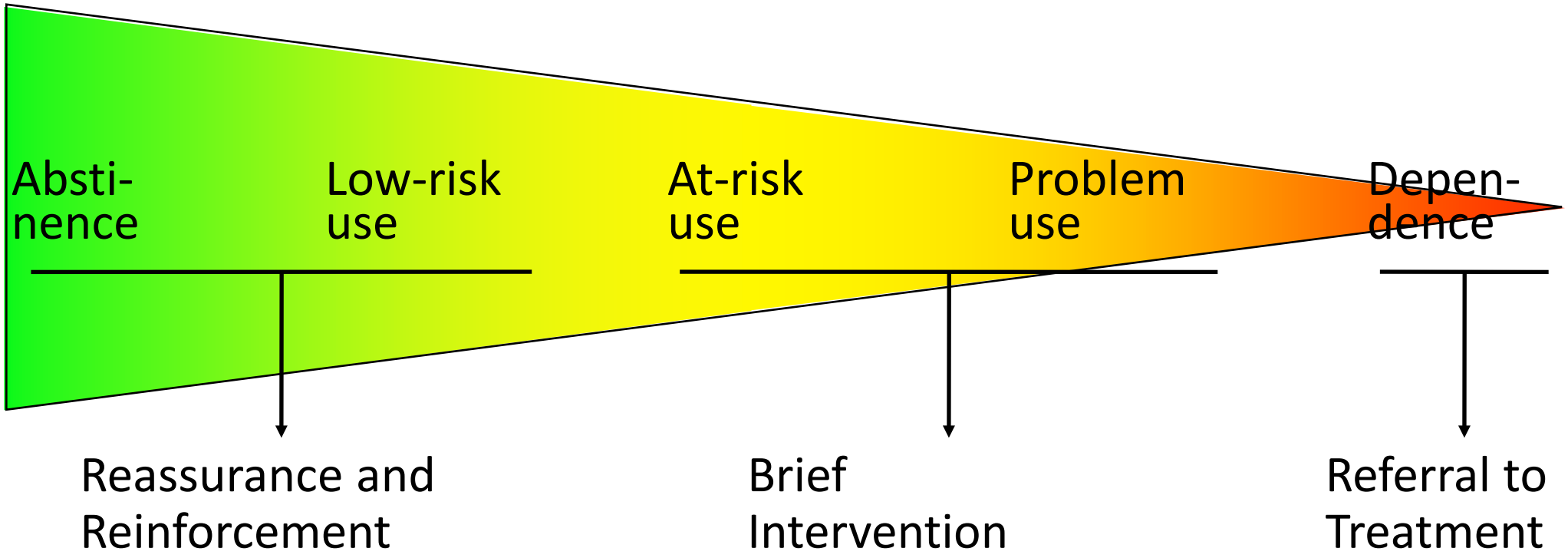
- Reduced net two-year Medicaid costs by $782 per patient screened

Brown, American Journal of Managed Care, 2014; Paltzer, Journal of Behavioral Health Services and Research, 2016

Outline-(*Page 8-10*)

- The substance use continuum
- Rationale for universal SBIRT
- Steps: screening, brief assessment, intervention/referral
- Selected principles of motivational interviewing
- The first SBIRT interaction: description, demo, practice
- Follow-up
- Implementation
- Pharmacotherapy

The Substance Use Continuum



- Alcohol
- Other euphoric drugs
- Potentially addictive prescription drugs

Abstinence

- Virtually no use of alcohol or drugs
- Lowest risk category
- Some who abstain are at higher risk than others …
  - Previous problems
  - Problems among biological relatives

… and may benefit from support

Standard Drink – ~14 grams of ethanol

12 fl oz of **regular beer**	=	8-9 fl oz of **malt liquor** (shown in a 12-oz glass)	=	5 fl oz of **table wine**	=	3-4 oz of **fortified wine** (such as sherry or port; 3.5 oz shown)	=	2-3 oz of **cordial, liqueur, or aperitif** (2.5 oz shown)	=	1.5 oz of **brandy** (a single jigger or shot)	=	1.5 fl oz shot of **80-proof spirits** ("hard liquor")
												
about 5% alcohol		about 7% alcohol		about 12% alcohol		about 17% alcohol		about 24% alcohol		about 40% alcohol		about 40% alcohol

How many drinks are in common containers?

Below is the approximate number of standard drinks in different sized containers of

regular beer	malt liquor	table wine	80-proof distilled spirits
12 fl oz = **1**	12 fl oz = **1½**	750 ml (a regular wine bottle) = **5**	a shot (1.5 oz glass/50 ml bottle) = **1**
16 fl oz = **1⅓**	16 fl oz = **2**		a mixed drink or cocktail = **1 or more**
22 fl oz = **2**	22 fl oz = **2½**		200 ml (a "half pint") = **4½**
40 fl oz = **3⅓**	40 fl oz = **4½**		375 ml (a "pint" or "half bottle") = **8½**
			750 ml (a "fifth") = **17**

Low-Risk Users		At-Risk Users
Adhere to low-risk drinking guidelines		**Exceed low-risk drinking guidelines**
and		*or*
Do not use drugs often taken to get high		Use drugs often taken to get high
and		*or*
Do not misuse potentially addictive prescription medication		Misuse potentially addictive prescription medication
		or
		Any combination of the above
Do not qualify for problem use or dependence		

Research-Based Low-Risk Drinking Guidelines

NIAAA scientists reviewed about 200 studies

Alcohol quantity and frequency

vs.

Negative consequences

Research-Based Low-Risk Drinking Guidelines

	In any occasion*	Per week
Men	No more than **4** standard drinks	No more than **14** standard drinks
Women	No more than **3** standard drinks	No more than **7** standard drinks

*A few to several hours

For some the only way to lower risk is abstinence

- Certain health conditions, such as liver disease or pancreatitis
- Medications that should not be taken with alcohol
- Susceptible to poor memory, eg, individuals with dementia
- Susceptible to falls
- Pregnant women
- Alcohol dependence

Low-Risk Users		At-Risk Users
Adhere to low-risk drinking guidelines *and* **Do not use drugs often taken to get high** *and*		Exceed low-risk drinking guidelines *or* **Use drugs often taken to get high** *or*
Do not misuse potentially addictive prescription medication		Misuse potentially addictive prescription medication *or*
		Any combination of the above
Do not qualify for problem use or dependence		

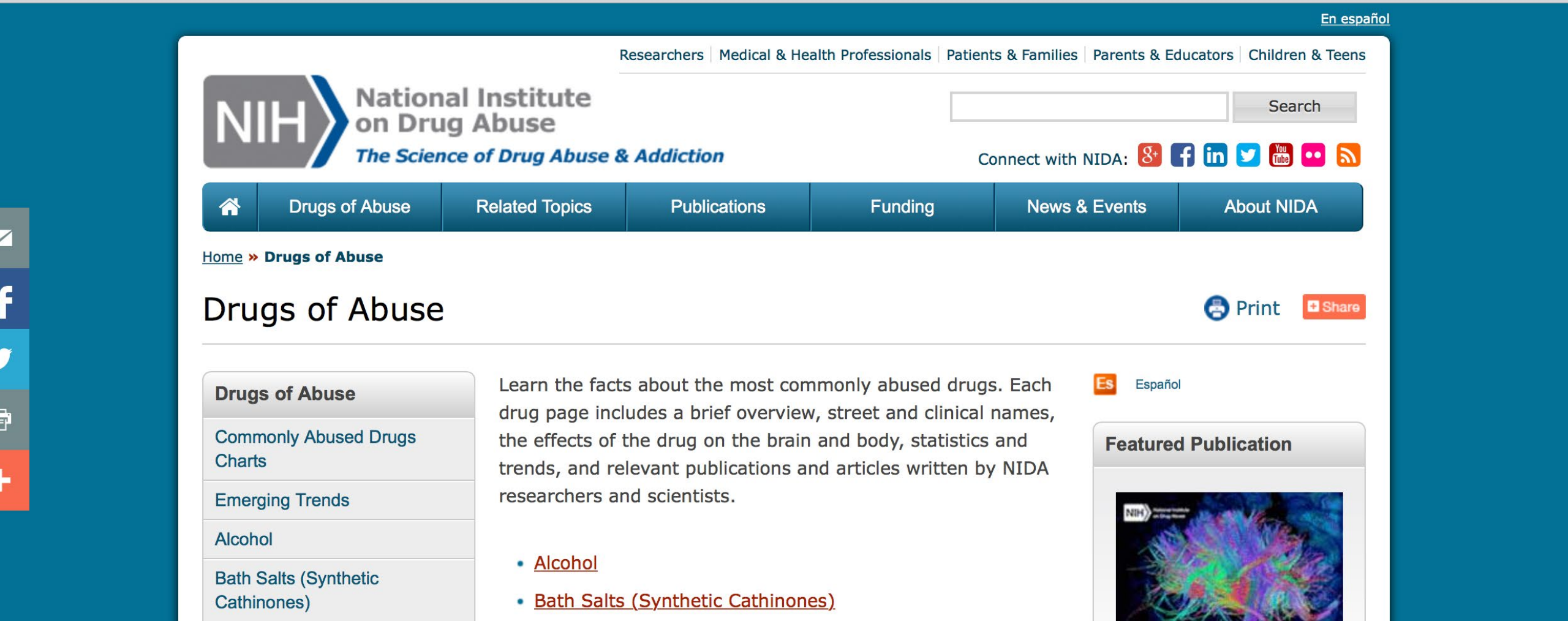
Risks of Marijuana Use

- Hinders thinking, memory and learning
- Causes irreversible reductions in IQ for regular, heavy users
- May cause breathing problems
- Harms developing fetuses
- May trigger panic attacks
- May trigger or cause schizophrenia
- Leads to dependence in

- 1 in 11 users (alcohol: 1 in 20 users)
- 1 in 6 users who started in their teens
- 25% to 50% of daily users

For authoritative information on drugs:

www.drugabuse.gov/drugs-abuse



Low-Risk Users

Adhere to low-risk drinking guidelines

and

Do not use drugs often taken to get high

and

Do not misuse potentially addictive prescription medication

At-risk Users

Exceed low-risk drinking guidelines

or

Use drugs often taken to get high

or

Misuse potentially addictive prescription medication

or

Any combination of the above

Do not qualify for problem use or dependence

Prescription Drug Misuse

	Opioids	Sedatives	Stimulants
Therapeutic uses	Pain Cough	Anxiety Insomnia	Attention deficit disorders Resistant depression
Examples - generic names	Hydrocodone Hydromorphone Oxycodone	Alprazolam Diazepam Triazolam	Amphetamine sulfate Dextro-amphetamine Methylphenidate
Examples - trade names	Lortab, Vicodin Dilaudid, Percocet, OxyContin	Xanax Valium Halcion	Evekeo Adderal, Dexedrine Concerta, Ritalin

Prescription Drug Misuse

Use of a potentially addictive prescription medication that …

- was not prescribed for that individual
- was prescribed but
  - taken in higher doses or more frequently than prescribed
  - taken for a purpose other than that prescribed
  - obtained deceptively

Low-Risk Users

Adhere to low-risk drinking guidelines

and

Do not use drugs often taken to get high

and

Do not misuse potentially addictive prescription medication

At-risk Users

Exceed low-risk drinking guidelines

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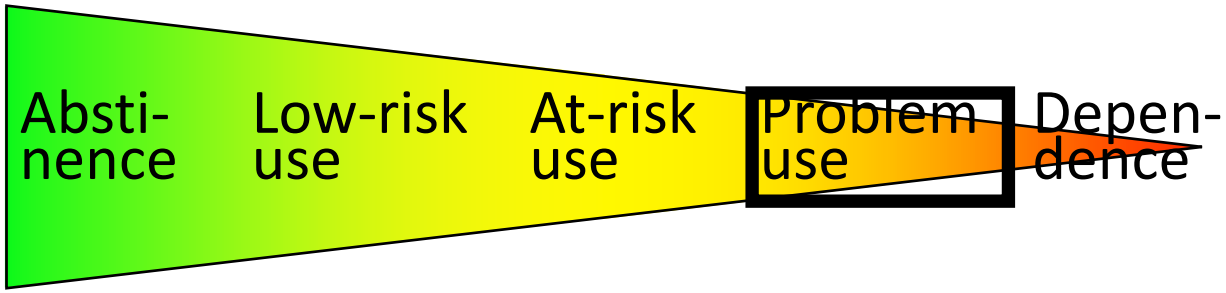
Problem Use



- Using alcohol and/or drugs
- Suffered negative consequences of substance use in the past year
- Does not fit the criteria for dependence

Realms of Negative Consequences

- Psychological
- Family relationships
- Other social relationships
- Work / School
- Financial
- Legal
- Religion / Spirituality
- Biomedical

Common Biomedical Consequences

Alcohol & drugs cause:

- Injury & disability
- Viral hepatitis
- HIV/AIDS
- Other STIs
- Unplanned pregnancies
- Poor birth outcomes
- Psychiatric disorders

Unhealthy drinking can cause:

- Hypertension
- Lipid disorders
- Heart disease
- Stroke
- Neuropathy
- Dementia
- Cancers
  - Oropharynx
  - Esophagus
  - Breast
  - Liver
  - Colon
- Sleep disorders
- GERD & gastritis
- Hepatitis & pancreatitis

Drinking can hinder treatment for:

- All of the above conditions
- Diabetes
- All chronic diseases

Dependence

Most dependent patients or clients have problem use

Loss of control

Preoccupation with using or obtaining

Urges and cravings

Compul-
sive use

Physical dependence

Dependence

Physical dependence - the propensity to experience withdrawal symptoms on s

Substance(s)	Symptoms	Notes
Alcohol & Sedatives	Tremors, agitation, hallucinations, seizures Most severe stage for alcohol: DTs	Most dangerous
Opioids	Agitation, diarrhea, abdominal cramping, muscle aches & pain, tearing, runny nose	Most uncomfortable
Cocaine and stimulants	Dysphoria, fatigue, sleepiness	

Dependence

Substance dependence without physical dependence:

- Most young alcohol-dependent individuals do not withdraw when they quit drinking

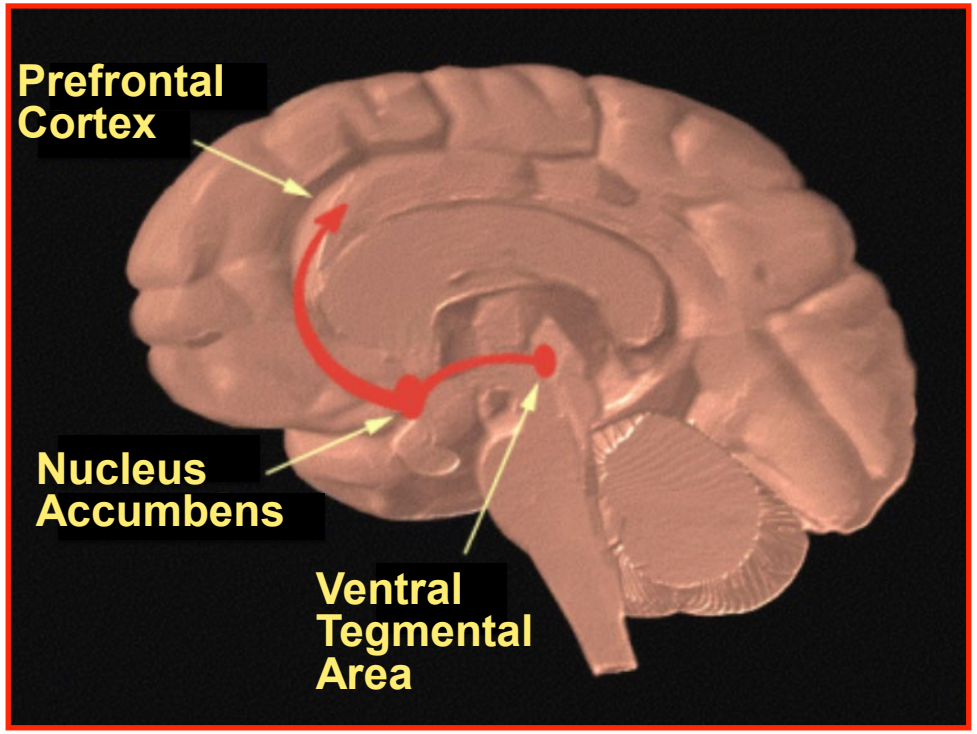
- Many marijuana-dependent individuals do not withdraw when they quit

Physical dependence without substance dependence:

- Individuals who take prescription opioids for pain for ≥2 weeks and suddenly quit will withdraw, yet most do not show other symptoms of substance dependence

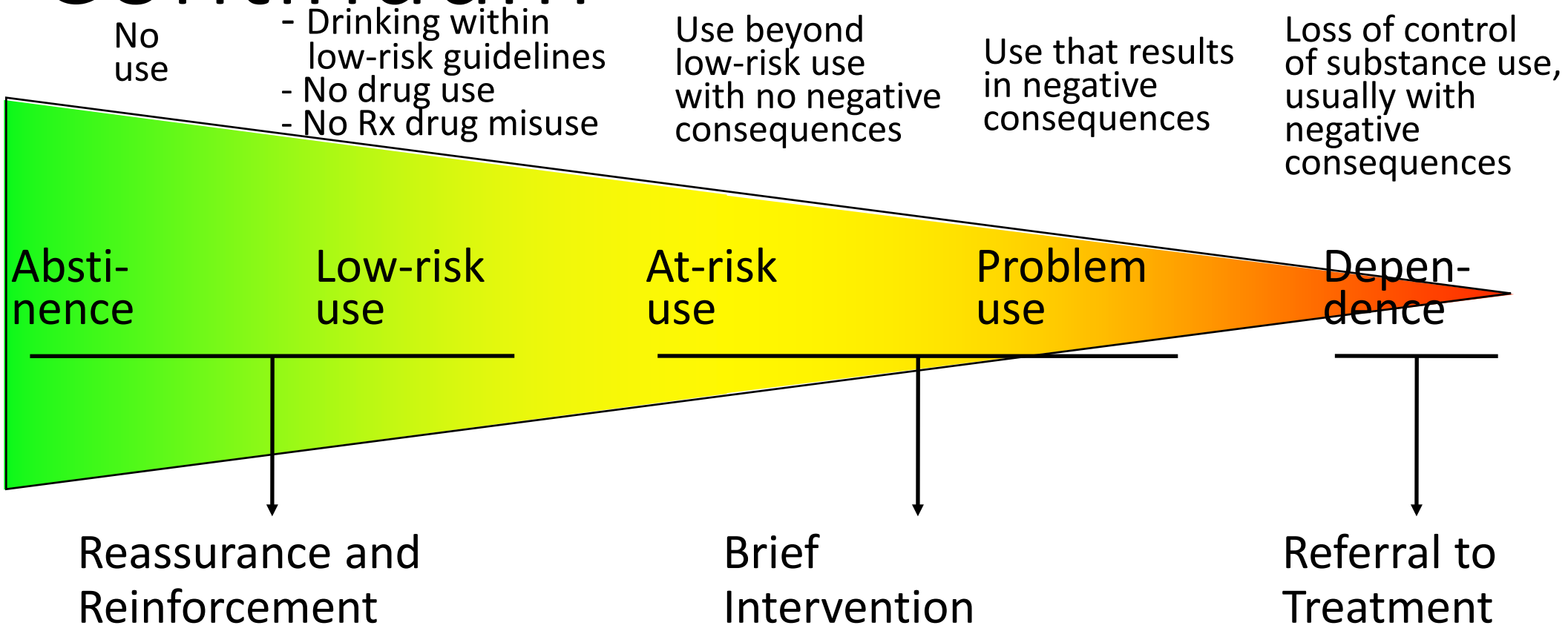
Dependence

The Pleasure-Reward Pathway of the Human Brain



- Generates sensation of pleasure from eating, drinking water and having sex
- Promotes survival of the individual and continuation of the species
- With dependence, gets hijacked and drives substance use
- Strongest risk factor: genetics

The Substance Use Continuum



DSM-5 Substance Use Disorder

No disorder
0 to 1 criterion

Mild disorder
2 to 3 criteria

Moderate disorder
4 to 5 criteria

Severe disorder
6 or more criteria

Diagnostic criteria

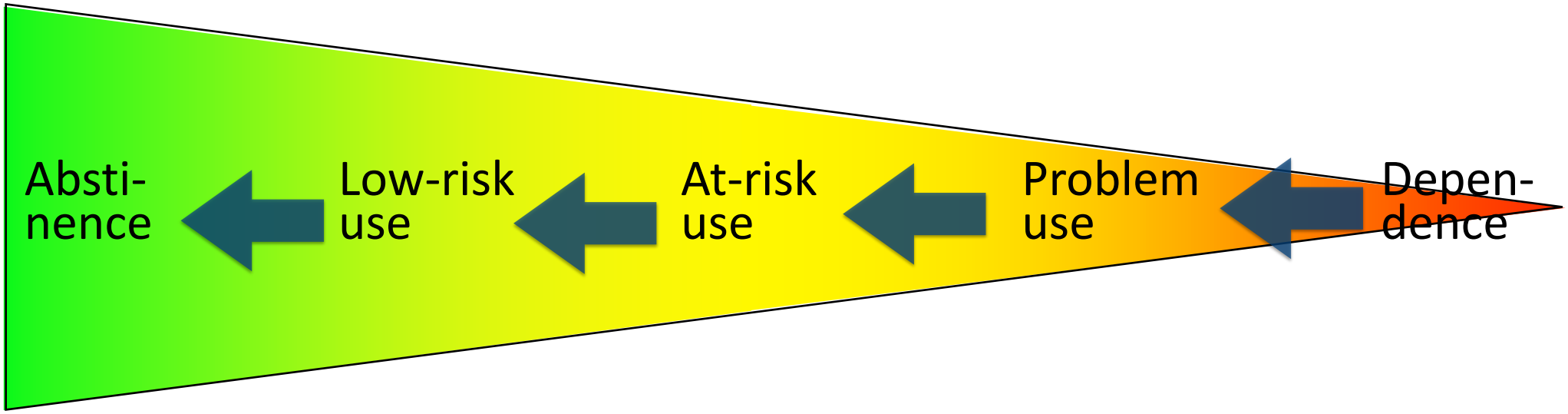
- Interference with important activities
- Missing work or school
- Use despite personal or social problems
- Continued use despite health problems
- Use in hazardous situations

Problem use

- Unsuccessful attempts to quit
- Using more than intended
- Craving
- Increased substance-seeking behaviors
- Tolerance
- Withdrawal

Depen-dence

The Goal of SBIRT



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The Rationale for Universal SBIRT

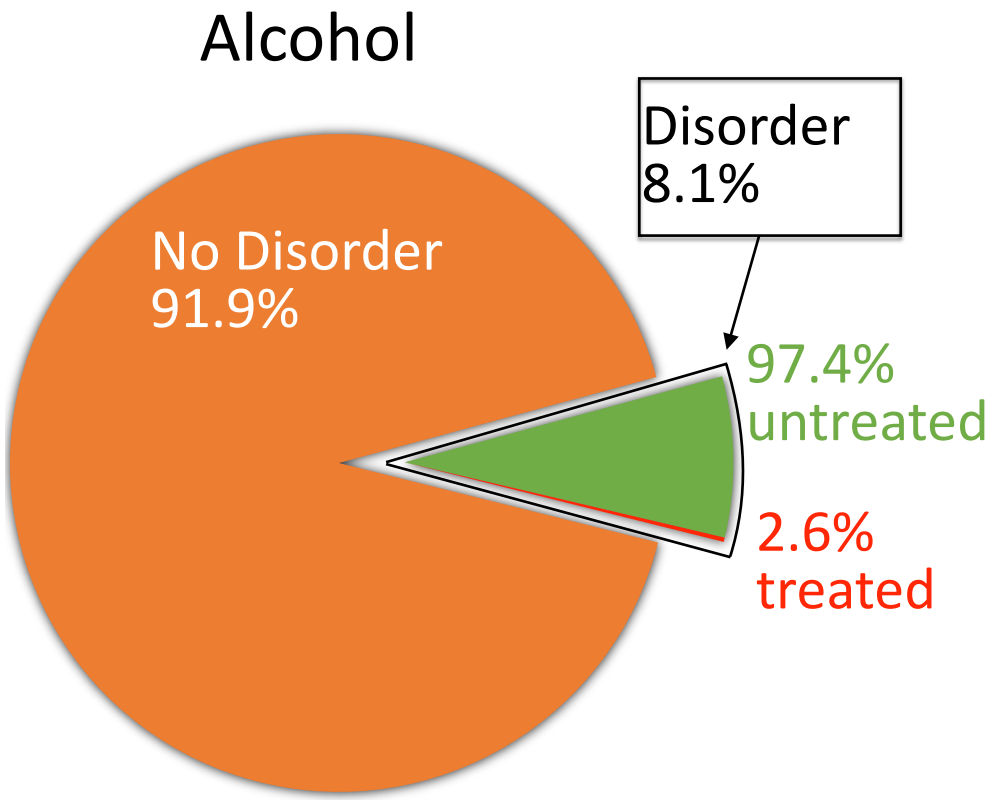
- At-risk use, problem use and dependence are common among
  - The general population
  - Population subgroups
- Adverse impacts of substance use are huge
  - Health
  - Social
  - Economic
- SBIRT reduces risky and problem substance use and its adverse impacts

At-risk or problem use or dependence

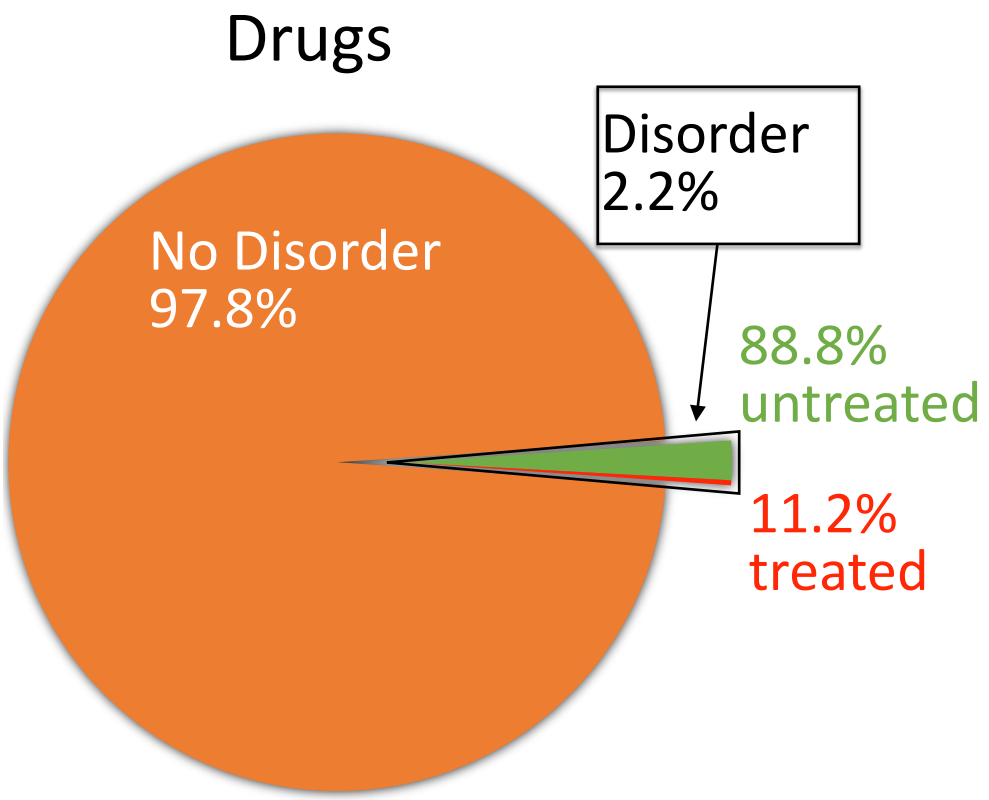
- ~30% of American adults
- ~40% of Wisconsin adults

National Survey on Drug Use and Health, State Report, 2012-2013

Prevalence of Substance Use Disorders and Receipt of Treatment in the Last Year – WI Adults



39 of 40 not treated



8 of 9 not treated

National Survey on Drug Use and Health, State Report, 2012-2013

Age, Gender, Race & Ethnicity

- Ages 12 to 17

- Binge drinking & drug use lowest among Asians
- Otherwise similar across gender, race and ethnicity groups

- Ages 18 to 25

- Binge drinking & drug use higher among males & young
- Whites: #1 in binge drinking, #2 in drug use

- Ages 26 and up

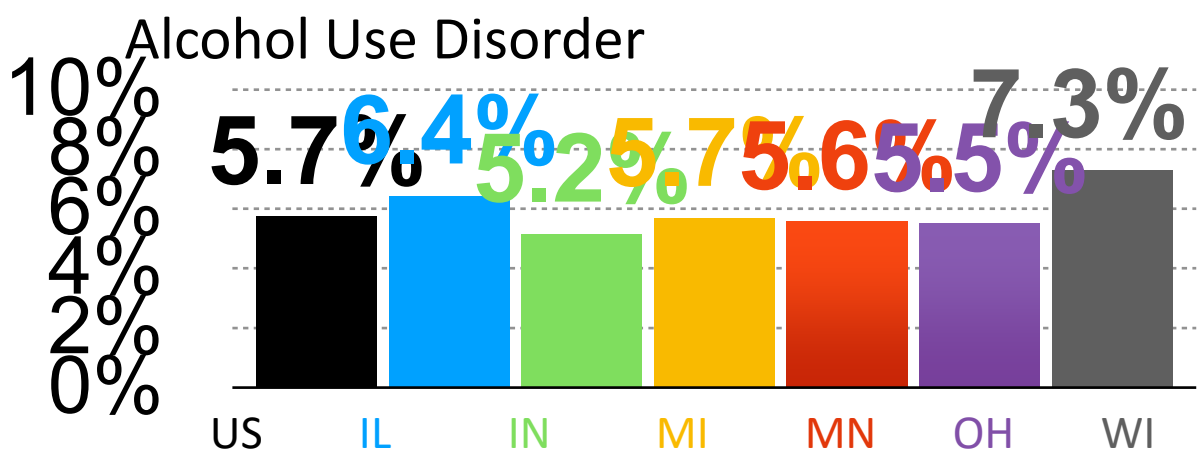
- Drug use is highest in multi-racial individuals
- Otherwise, binge drinking and drug use are similar

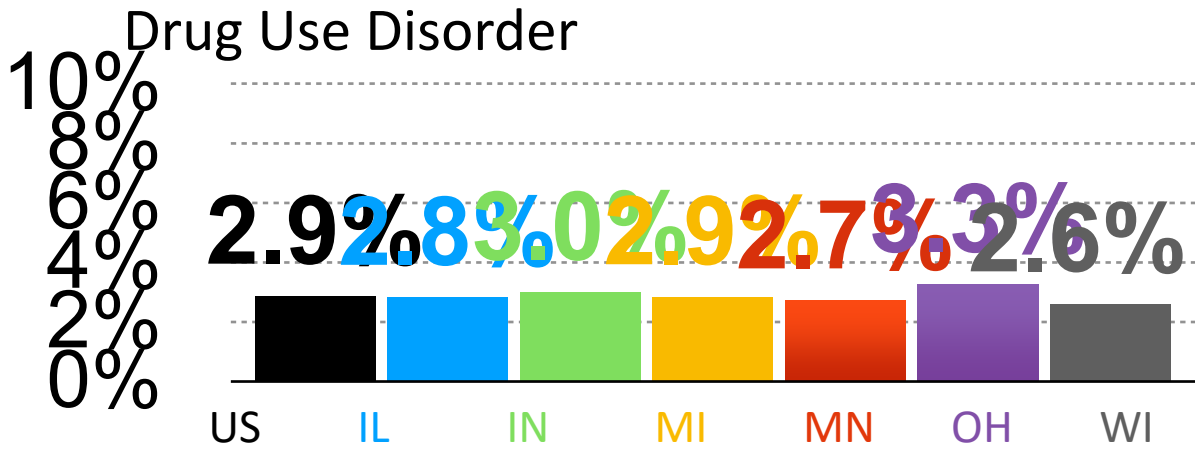
Education & Employment

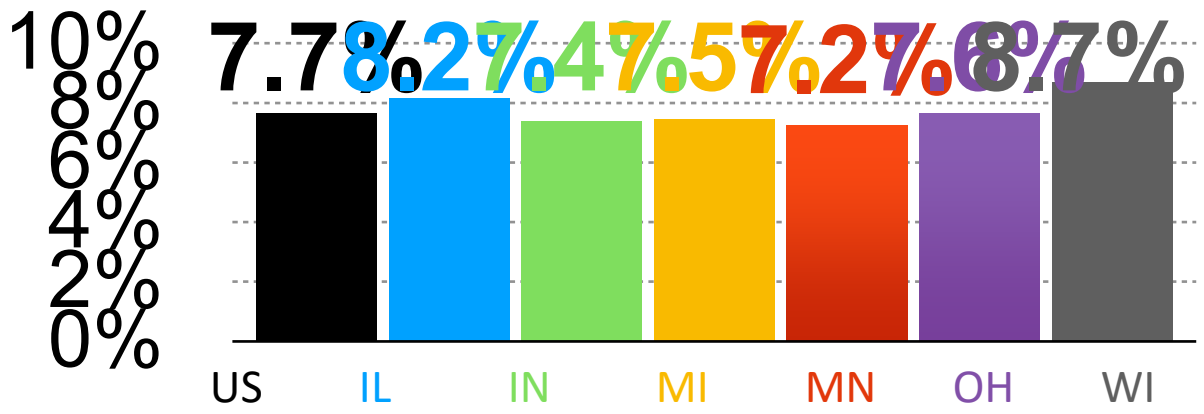
Age	Substance		With more education …	With higher employment …
18 to 25	Alcohol		More at-risk drinking	More at-risk drinking
	Drugs		Less drug use	Less drug use
26 and up	Alcohol		Little relationship	Lowest among partially employed
	Drugs		Slightly less drug use	Less drug use

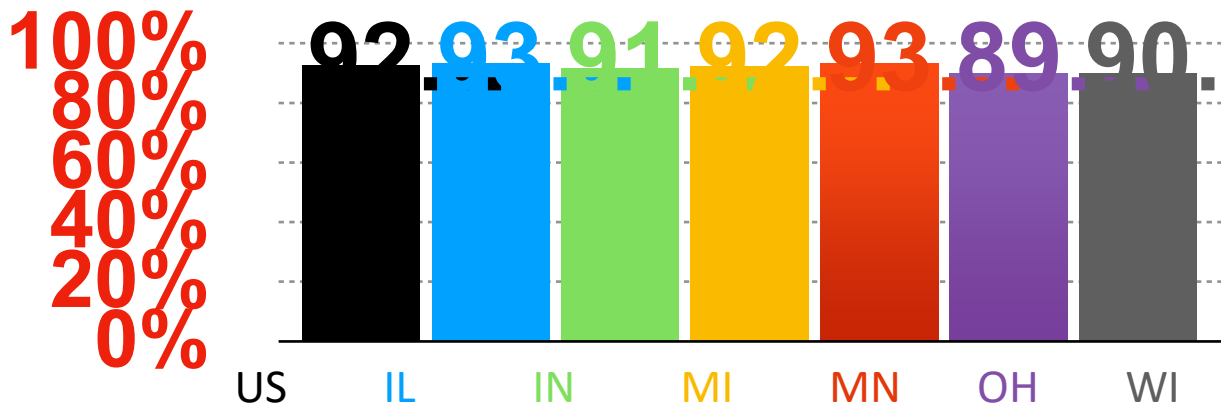
Behavioral issues → worse outcomes + higher costs

Past-Year Prevalence - 2017 to 2018





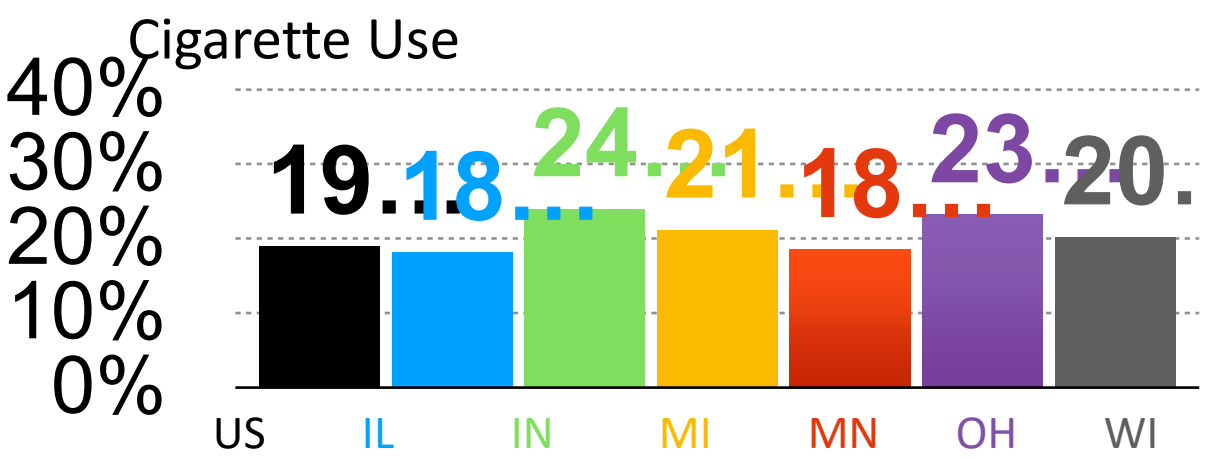


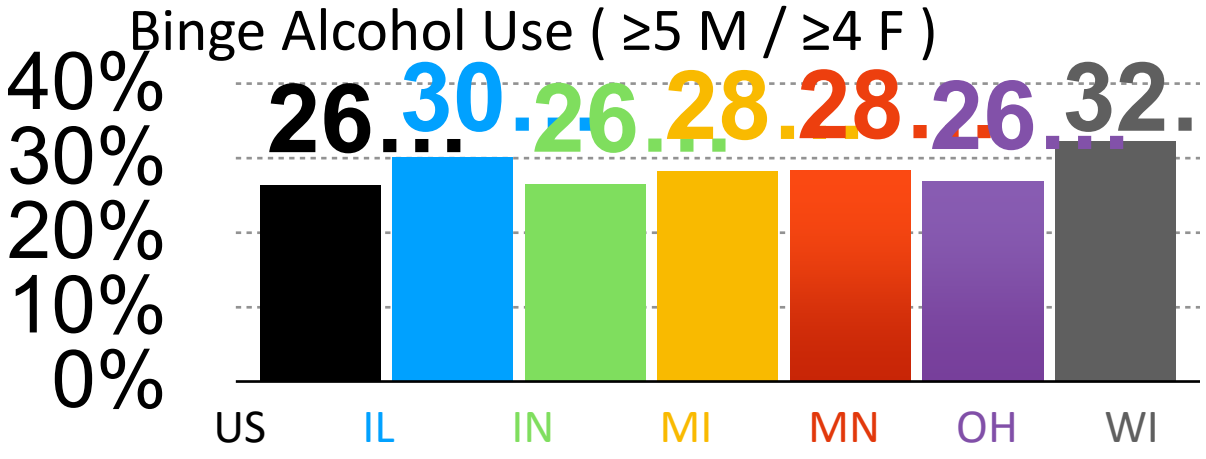


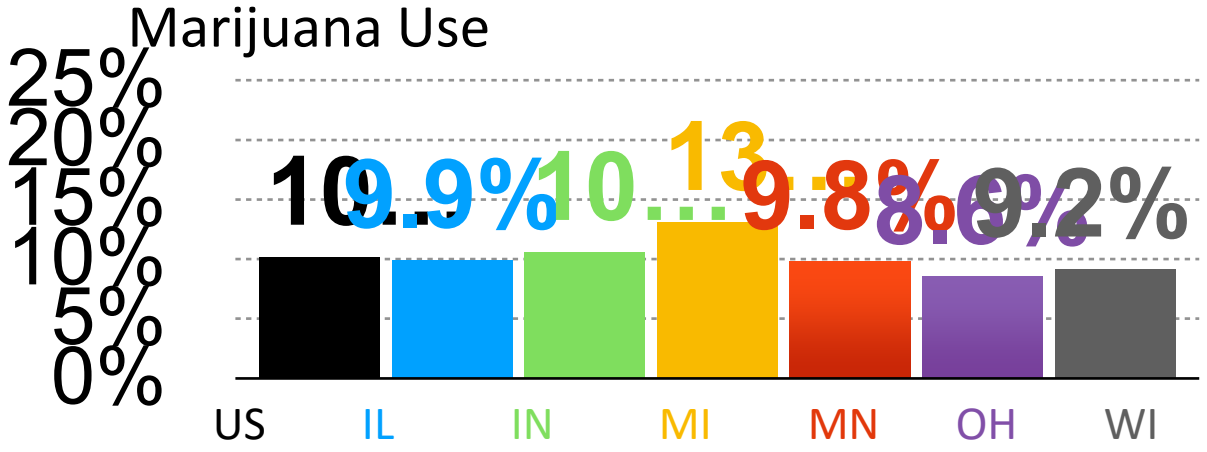
National Survey on Drug Use and Health, 2017-2018

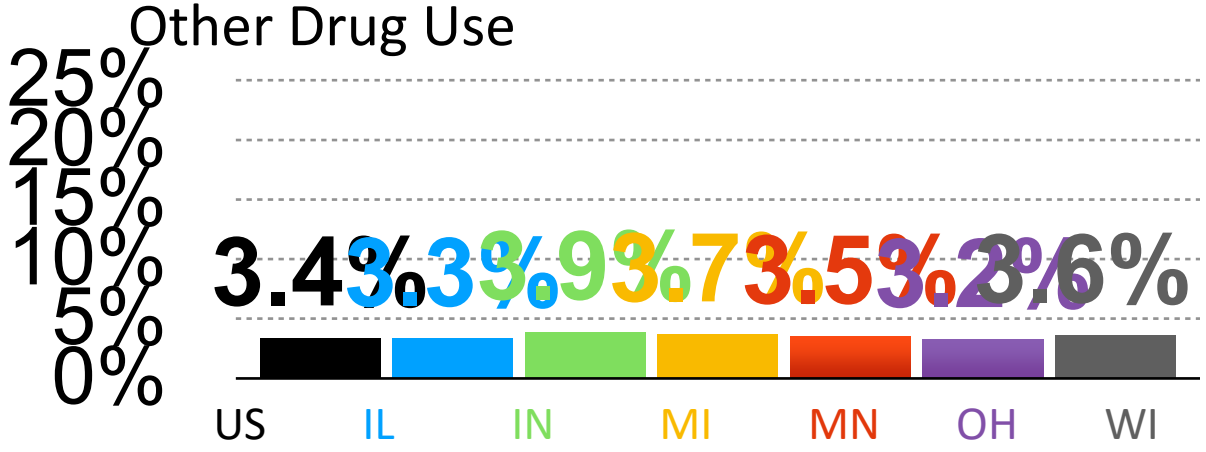
Behavioral issues → worse outcomes + higher costs

Past-Month Prevalence - 2017 to 2018









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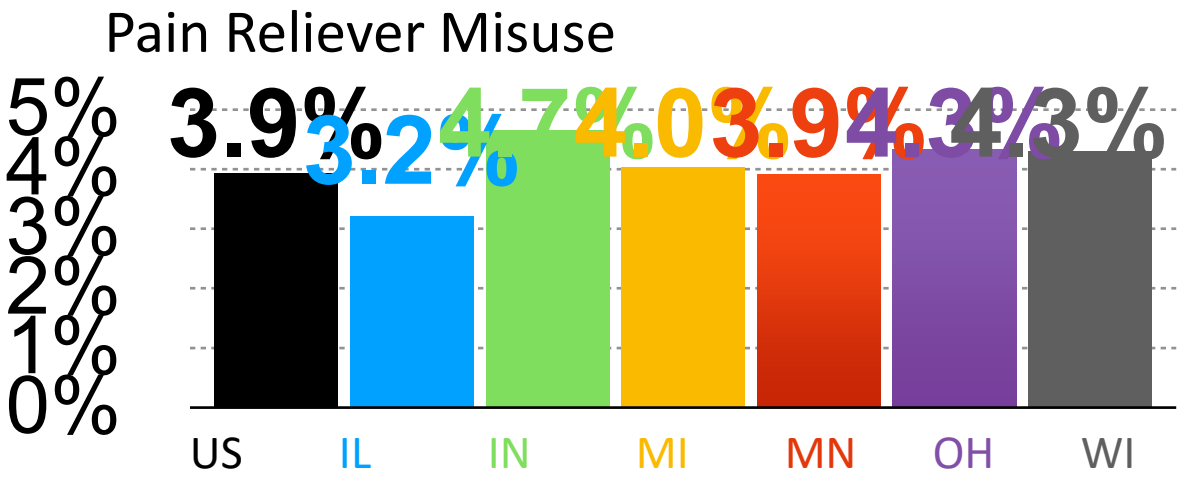
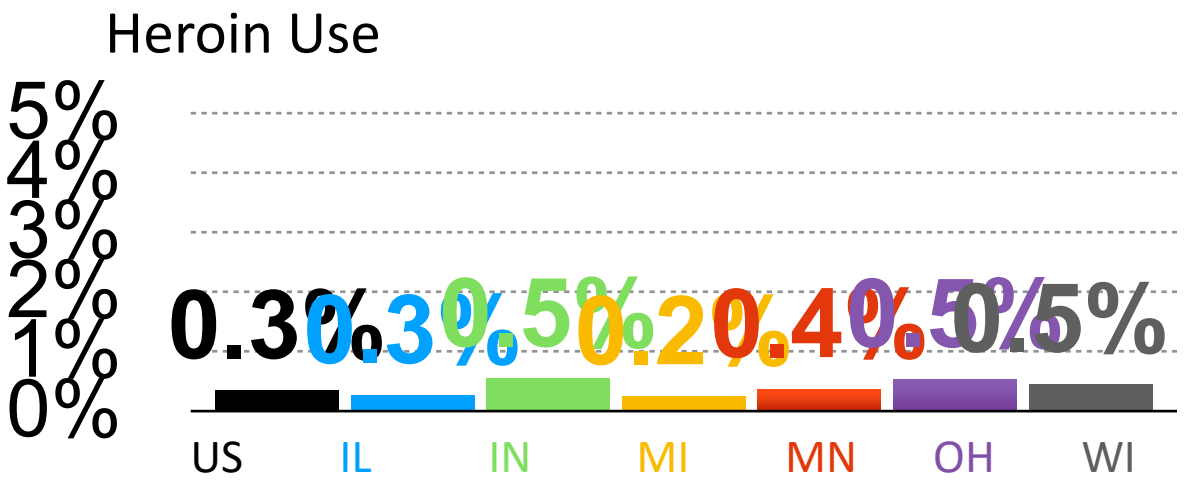
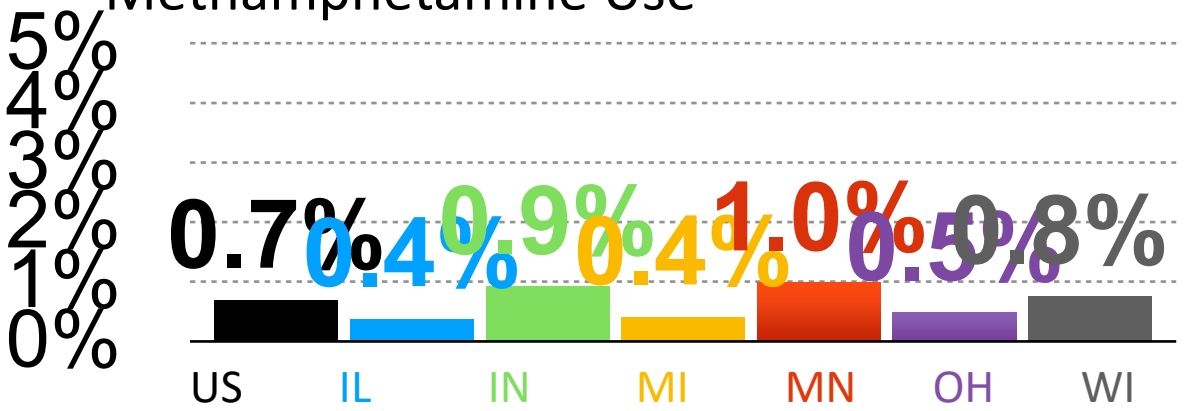




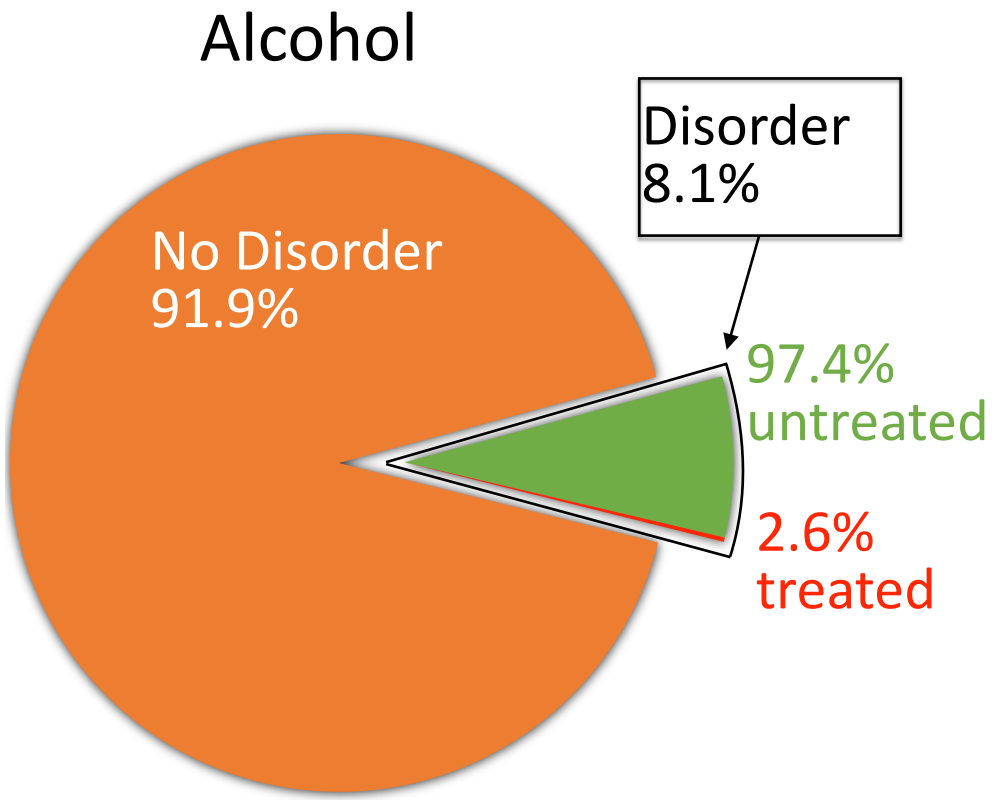


National Survey on Drug Use and Health, 2017-2018

Bottom Line

- At-risk drinking and drug use occur in all population subgroups
- All patients should be screened

Prevalence of Substance Use Disorders and Receipt of Treatment in the Last Year – WI Adults



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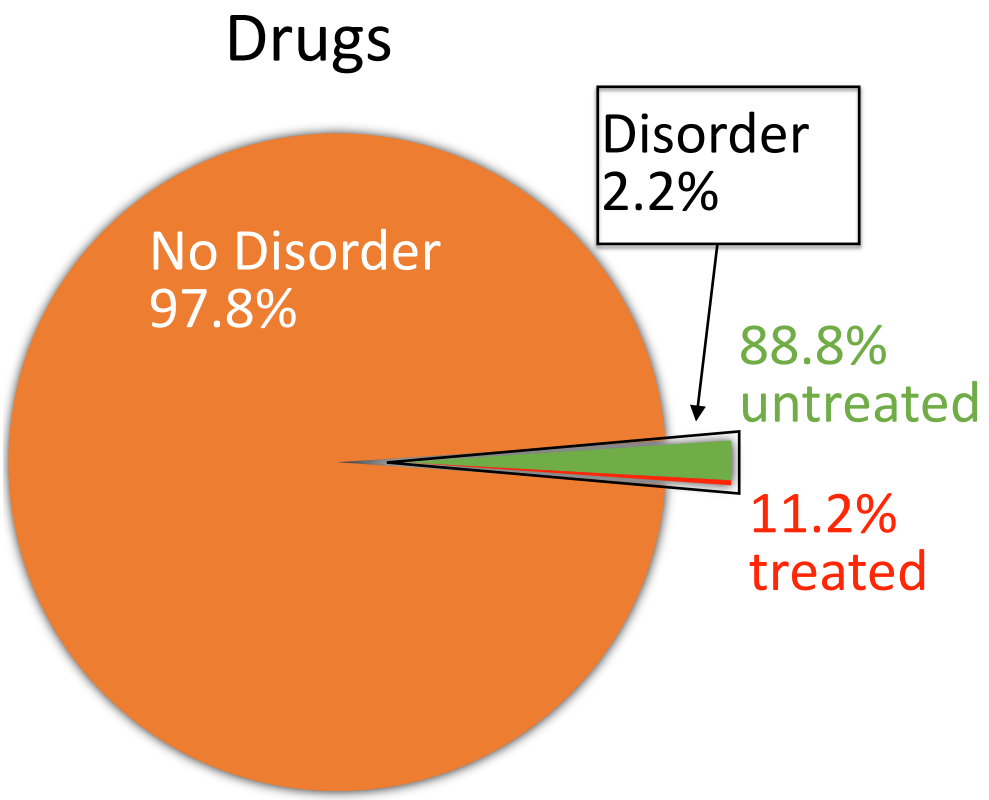

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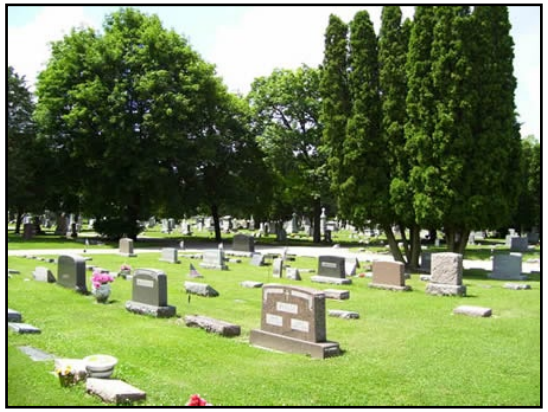
National Survey on Drug Use and Health, State Report, 2012-2013

Impacts of Excessive Drinking in Wisconsin



1,529 deaths

48,578 hospitalizations

5,751 crashes

60,221 arrests

Black P, Palzer J. Burden of Excessive Alcohol Use in Wisconsin. UW Population Health Institute, 2013

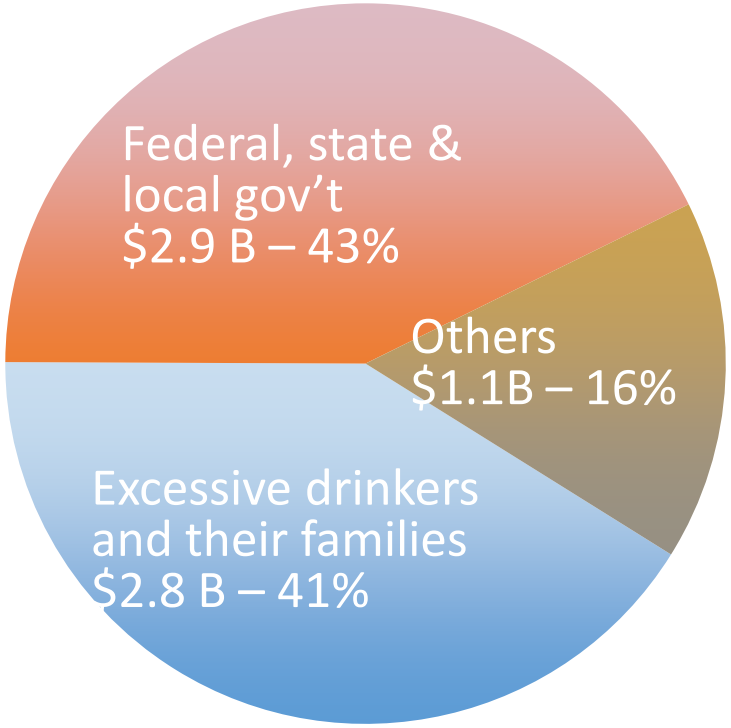
Economic Impacts of Excessive Drinking in Wisconsin

Description	Amount
Healthcare	$750 million
Premature mortality	$2.0 billion
Additional productivity loss	$2.9 billion
Criminal justice	$649 million
Vehicular crashes	$418 million
Other	$90 million
Total	$6.8 billion

$1,200 for every adult and child resident

19% of the FY 2016 State of Wisconsin budget

Who pays?



Black P, Palzer J. Burden of Excessive Alcohol Use in Wisconsin. UW Population Health Institute, 2013

Brief Alcohol Interventions

– Effectiveness for At-risk and Problem Use –

- 10% to 30% declines in drinking

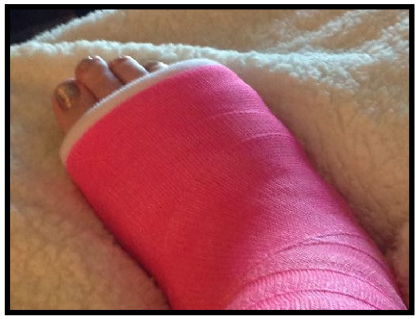
- With 1 to 3 booster sessions, declines in drinking last up to 4 years

Fleming, Alc Clin Exp Res, 2002

Brief Alcohol Interventions

– Effectiveness for At-risk and Problem Use –

In the year after interventions:

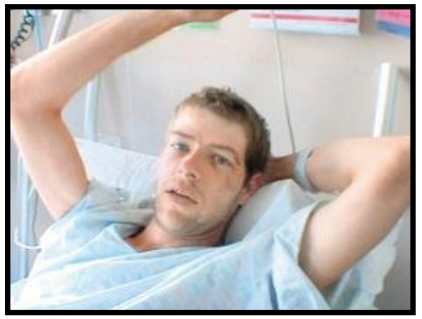


Injuries

20%

ED Visits

20%



Hospitalizations

37%

Arrests

46%

Crashes

50%

Fleming, JAMA, 1999; Fleming, Medical Care, 2000

Brief Alcohol Interventions

– Cost Savings Per Patient –

	Project TrEAT	**WASBIRT**	
Patients and settings	Wisconsin primary care patients	Disabled Medicaid patients in Washington State EDs	
Intervenors	Physicians and nurses	Alcohol/drug counselors	
Intervention cost	$205	$15	
Healthcare savings	$523*	$4,392*	
Other savings	$629*	Not studied	

*One-year savings per patient intervened upon

Fleming, Medical Care, 2000 Estee, Medical Care, 2010

Effectiveness of Referrals for Alcohol Treatment

Meta-analysis of 9 RCTs with 993 intervention/referral pts and 937 controls

- Studied alcohol interventions/referrals in healthcare settings
- Included patients not seeking help for their drinking
- Tracked receipt of treatment services after interventions/referrals
- Follow-up: 10 years for one study, 3 to 18 months for others

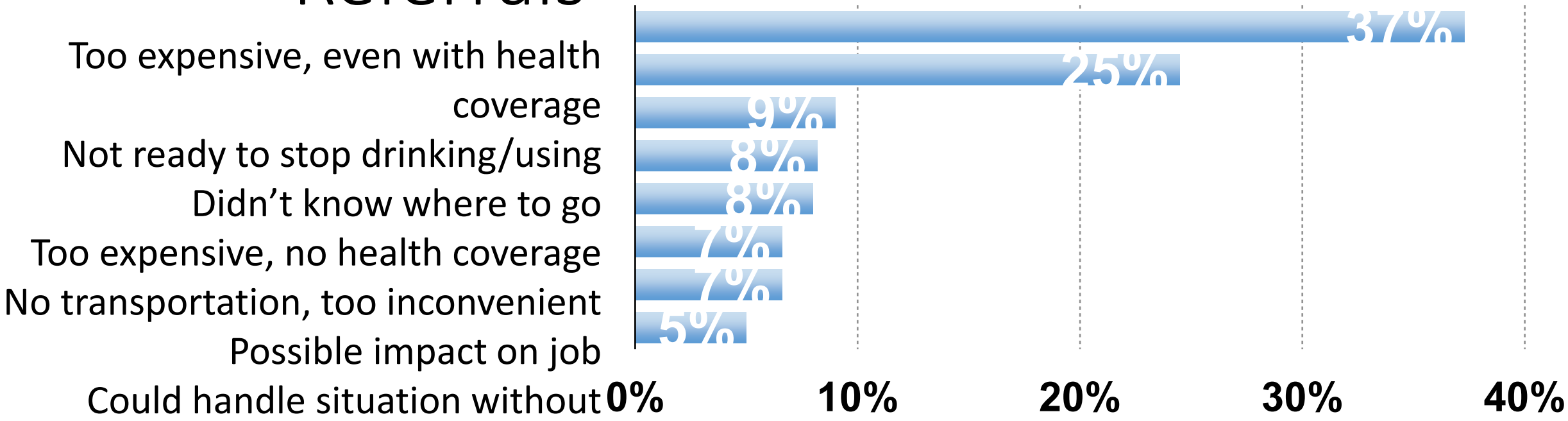
Results

- Statistically insignificant increase in receipt of treatment services with SBIRT: RR=1.08; 95% confidence interval: 0.92 - 1.28; p>.05)

WIPHL's experience: 10% of referrals resulted in at least one visit

Glass, Addiction, 2015

Barriers to Effective Referrals

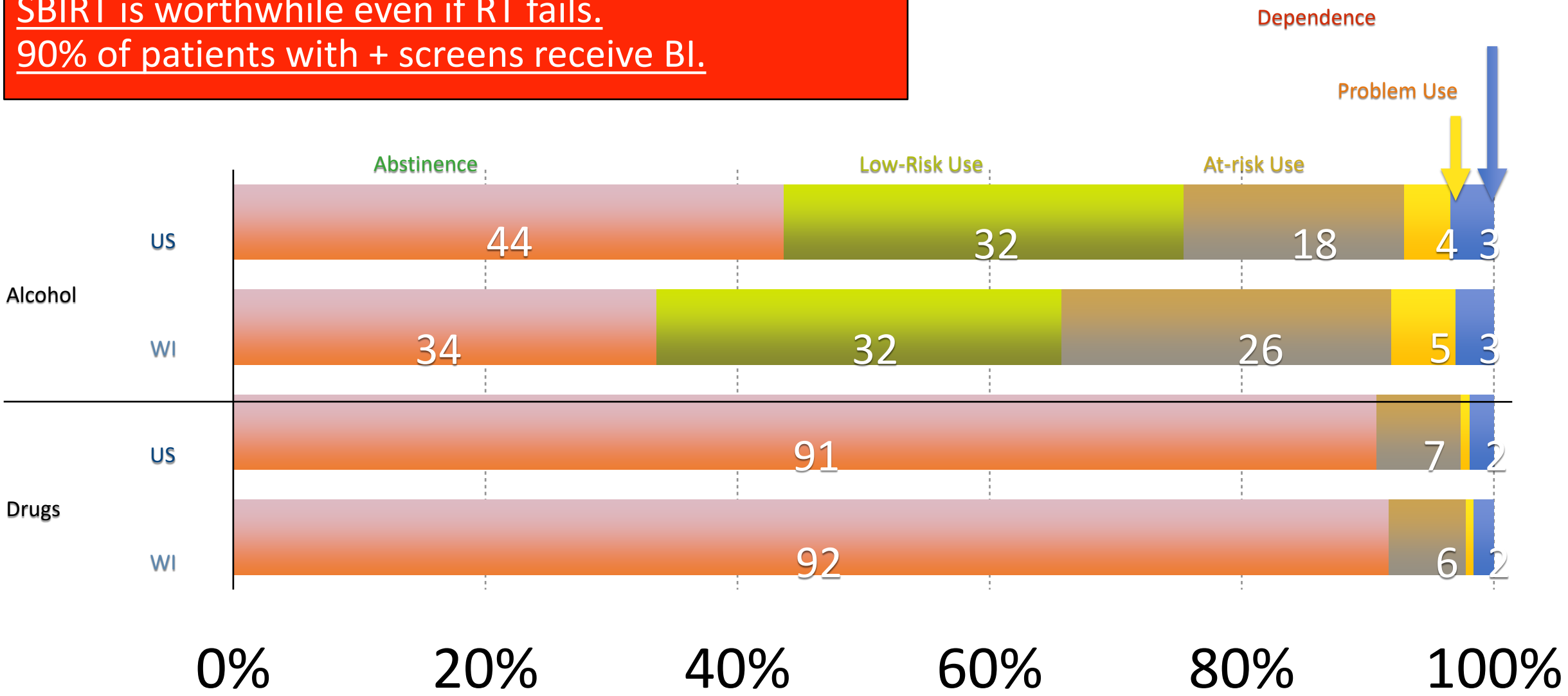


Possible Solutions

- Offer outpatient treatment in general healthcare settings
- Offer outpatient treatment during days and evenings
- Offer treatment that requires no commitment to abstinence
- Enforce parity legislation - reduce treatment costs for patients

SAMHSA, National Survey on Drug Use and Health, 2013

SBIRT is worthwhile even if RT fails.
90% of patients with + screens receive BI.



White numbers are percentages

National Survey on Drug Use and Health, State Report, 2012-2013

Cost Savings of BSI

	Setting	Patients	Investment	Savings	Net Savings	Per Patient …	Years	ROI
Smoking	–	Medicaid	$183	$571	$388	… who quit	1	2.1
Smoking	–	Medicaid, pregnant	$201	$1,273	$1,072	… who quit	1+	5.3
Alcohol	PC	All adults	$205	$523	$318	… intervened on	1	1.6
Alcohol & Drugs	ED	Disabled Medicaid	$15	$4,392	$4,377	… intervened on	1	292
Alcohol & Drugs	PC	Medicaid	$48 $96	$439 $878	$391 $782	… screened	1 2	8.1 8.1
Depression	PC	≥60 yo	$900	$5,200	$4,300	… intervened on	4	4.8

Richard, PLOS One, 2012; McCallum, Journal of Health Care for the Poor and Underserved, 2014; Fleming, Medical Care, 2000; Estee, Medical Care, 2010; Paltzer, Journal of Behavioral Health Services and Research, 2016; Unutzer, CMS Testimony, 2011

Cost Savings of BSI

Year 1 Savings Assumed for Projections

	Setting	Patients	Investment	Savings	Net Savings	Per Patient …	Years	ROI
Smoking	–	Medicaid	$183	**$571**	$388	… who quit	1	2.1
Smoking	–	Medicaid, pregnant	$201	$1,273	$1,072	… who quit	1+	5.3
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Projected One-Year Cost Savings – 1,000 Primary Care Patients

	Unhealthy Alc/ Drug Use	Depression	Cigarette Smoking
Patients screened	1,000	1,000	1,000
Prevalence	20%	20%	18%
# patients intervened upon	200	200	180
Additional patients who quit (22% of those who receive interventions)	–	–	40
Year 1 healthcare cost savings per patient	$300	$1,300	$571
Total 1-year healthcare savings	$300,000	$260,000	$22,840

Total 1-year savings for all 1,000 patients	$582,840
Total 1-year savings per patient screened	$583

Outline

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Definition of Screening

A rapid, proactive, systematic procedure

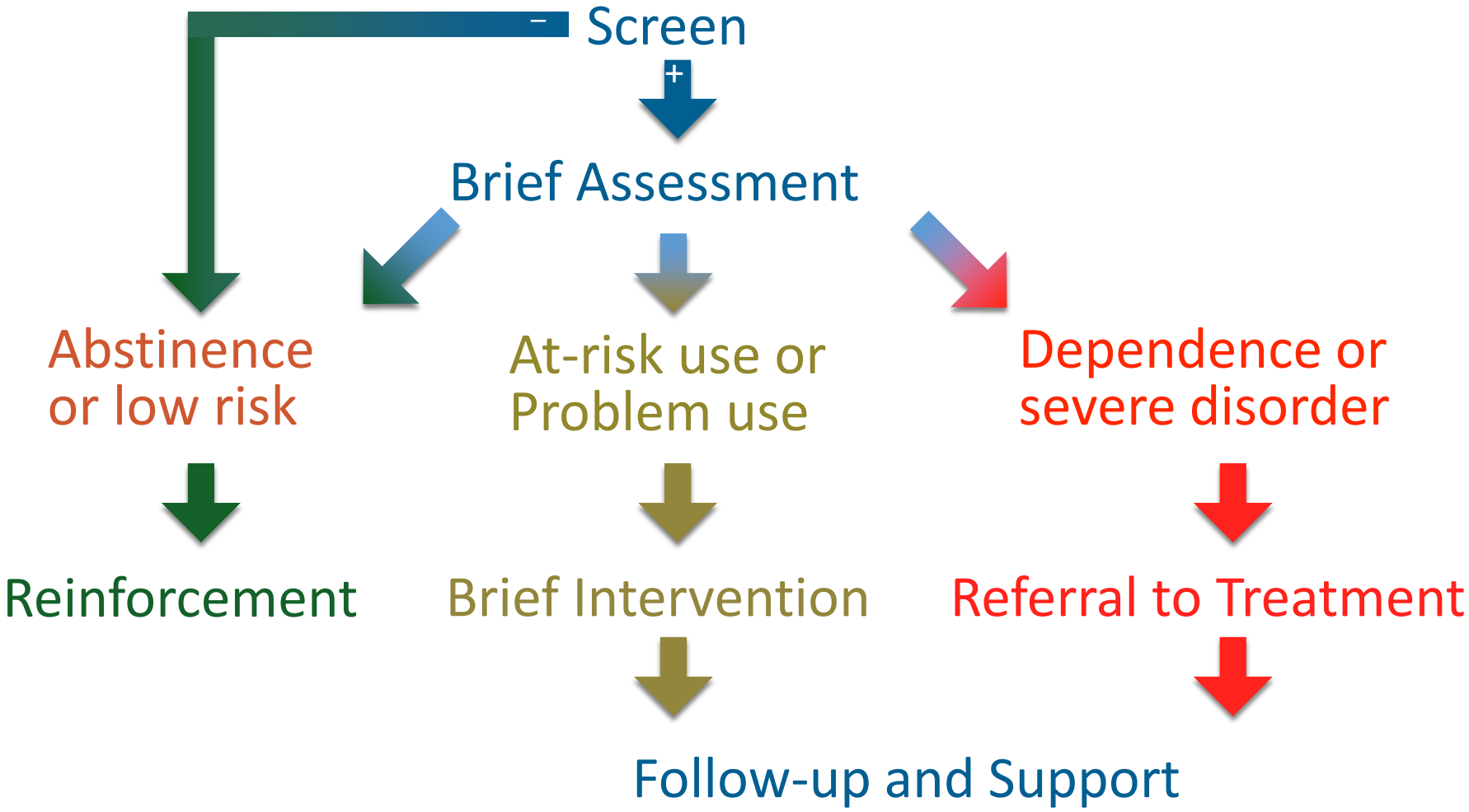
applied to entire patient/client populations

to identify individuals who may have a condition

or may be at risk for a condition

before obvious manifestations occur

SBIRT Overview



What Conditions Warrant Screening?

1. The condition should be an important health problem
2. There should be a latent or early symptomatic stage
3. There should be a test that is easy to perform and interpret, acceptable, accurate, reliable, sensitive and specific
4. There should be an accepted treatment for the condition
5. Treatment should be more effective if started early
6. Diagnosis and treatment should be cost-effective

For alcohol screens, define standard drinks

12 fl oz of **regular beer**	=	8-9 fl oz of **malt liquor** (shown in a 12-oz glass)	=	5 fl oz of **table wine**	=	3-4 oz of **fortified wine** (such as sherry or port; 3.5 oz shown)	=	2-3 oz of **cordial, liqueur, or aperitif** (2.5 oz shown)	=	1.5 oz of **brandy** (a single jigger or shot)	=	1.5 fl oz shot of **80-proof spirits** ("hard liquor")
												
about 5% alcohol		about 7% alcohol		about 12% alcohol		about 17% alcohol		about 24% alcohol		about 40% alcohol		about 40% alcohol

Ounces in a standard drink = 60 / % alcohol by volume

Single Alcohol Screening Question

How many times in the past year have you had X or more drinks in a day?

 X = 5

 X = 4

a. None
b. 1
c. 2 to 5
d. 6 to 10
d. 11 to 20
e. more than 20

Positive response: Greater than none

Smith, Journal of General Internal Medicine, 2009

AUDIT-C

1. How often do you have a drink containing alcohol?

a. Never
b. Monthly or less
c. 2 to 4 times a month
d. 2 or 3 times a week
e. Daily or almost daily

2. How many standard drinks do you have on a typical day when you drink?

a. 1 or 2
b. 3 or 4
c. 5 or 6
d. 7 to 9
e. 10 or more

3. How often do you have X or more drinks on one occasion?

a. Never
b. Monthly or less
c. Monthly
d. Weekly
e. Daily or almost daily

Men: X = 5
Women: X = 4

Add up all points: a = 0; b = 1; c = 2; d = 3; e = 4
Positive screen – men: ≥4 points women: ≥3 points

Exception: All points from item 3

http://www.integration.samhsa.gov/images/res/tool_auditc.pdf

NIAAA Quantity-Frequency Questions

1. How many days a week do you typically have some alcohol?
2. How many standard drinks do you have on a typical day of drinking?
3. What's the largest number of standard drinks you've had in an occasion in the last 3 months?

Multiply together and compare to weekly low-risk limits:

- ≤ 14 for men
- ≤ 7 for women

Compare to episodic low-risk limits:

- ≤ 4 for men
- ≤ 3 for women

Friedmann, Journal of Studies on Alcohol, 2001

Single Drug Screening Question

How many times in the past year have you used an illegal drug or used a prescription medication for non-medical reasons?

a. None
b. 1
c. 2 to 5
d. 6 to 10
d. 11 to 20
e. more than 20

Positive response: Greater than none

Smith, Journal of General Internal Medicine, 2009

Two-Item Conjoint Screen

(May be added to 2 single screening questions to identify more drug disorders)

1. In the last year, have you ever drunk alcohol or used drugs more than you meant to?
2. In the last year, have you felt you wanted or needed to cut down on your drinking or drug use?

Positive screen: Yes to either or both questions

Does not identify <u>at-risk</u> alcohol or drug use

Brown, Journal of the American Board of Family Practice, 2001

Accuracy of Alcohol and Drug Screens

	Sensitivity	Specificity
	Of those <u>with</u> the condition, what proportion screen <u>positive</u>?	Of those <u>without</u> the condition, what proportion screen <u>negative</u>?
	True positive vs. false negative	True negative vs. false positive
Single Alcohol Screening Question	82%	79%
AUDIT-C	♂: 79% ♀: 80%	♂: 56% ♀: 87%
NIAAA Quantity- Frequency Questions	83%	84%
Single Drug Screening Question	83%	94%
Two-Item Conjoint Screen (TICS)*	79%	77%

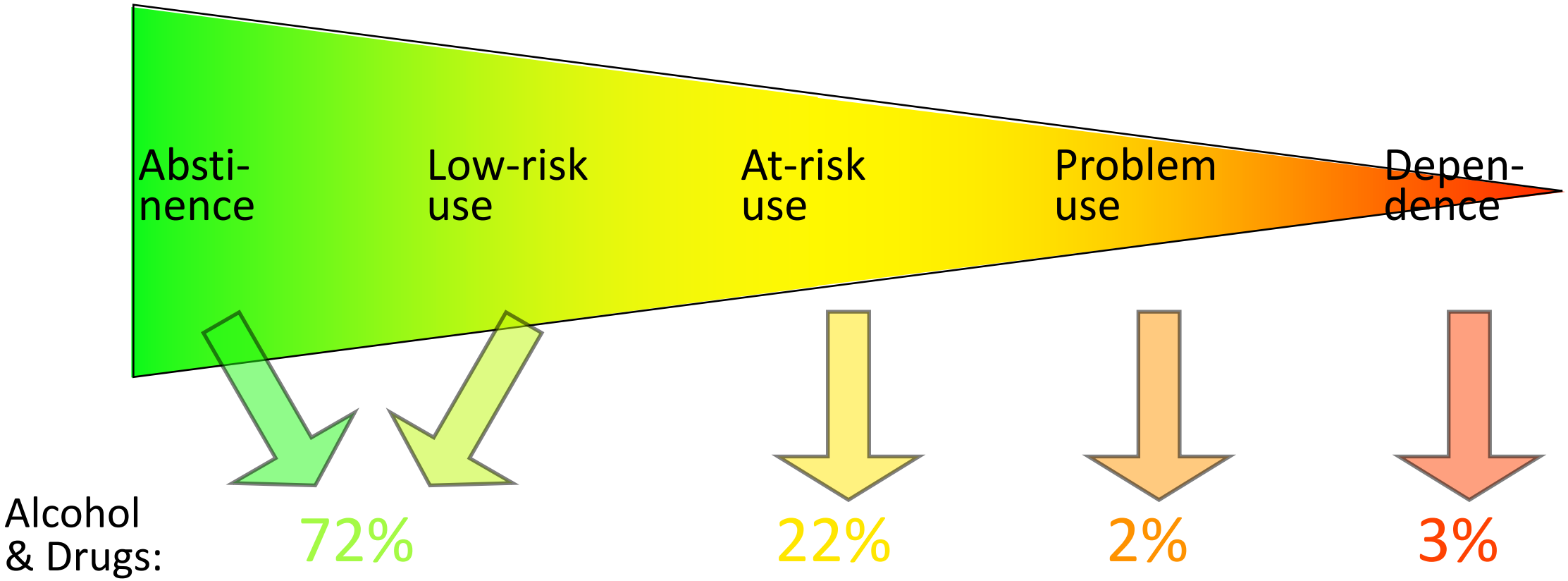
*Screens for problem use and dependence, not risky use

Smith, Journal of General Internal Medicine, 2009; http://www.integration.samhsa.gov/images/res/tool_auditc.pdf; Friedmann, Journal of Studies on Alcohol, 2001; Smith, Journal of General Internal Medicine, 2009; Brown, Journal of the American Board of Family Practice, 2001

Interpreting Screen Results

- Screens identify most risky users, problem users and dependent individuals
- False-positives and false-negatives are not unusual
- Because of false-positives …
  - Positive screens are not definite indicators of risky use, problem use or dependence
  - Screens merely indicate which asymptomatic individuals should undergo further assessment
- Because of false-negatives …
  - Screens should not be administered to individuals with symptoms of disorders
  - Those individuals should undergo more in-depth assessment

WIPHL's Experience - Brief Assessment



Brown, American Journal of Managed Care, 2014

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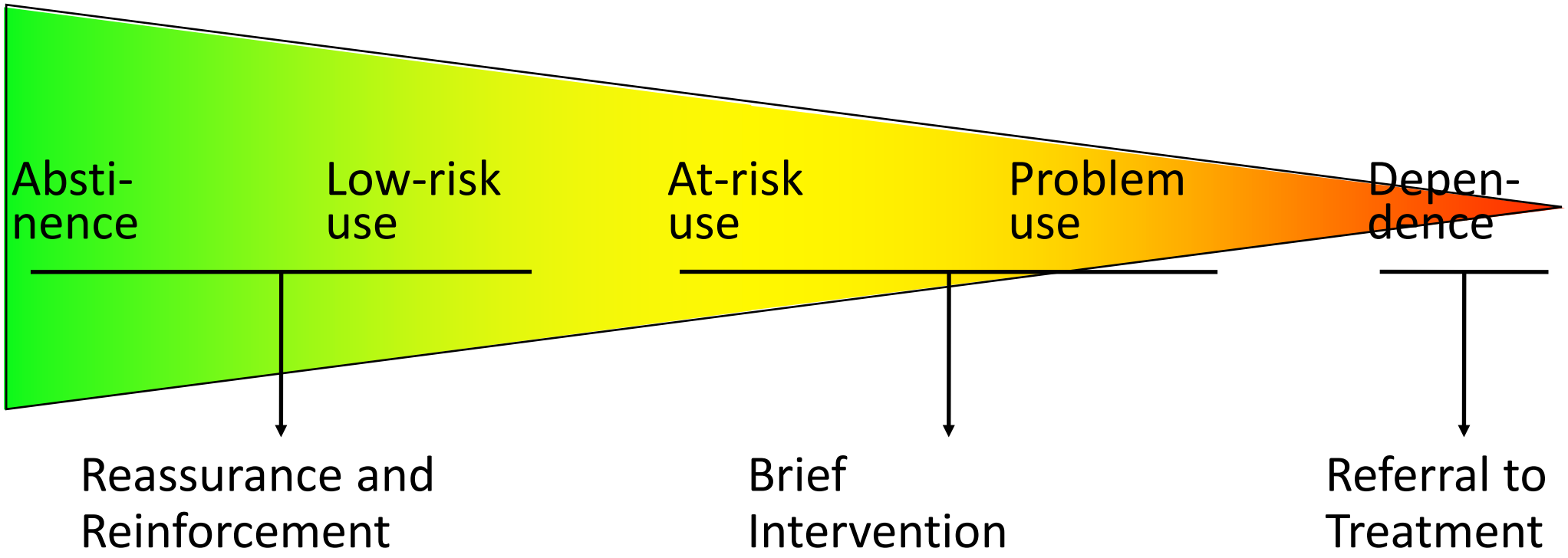
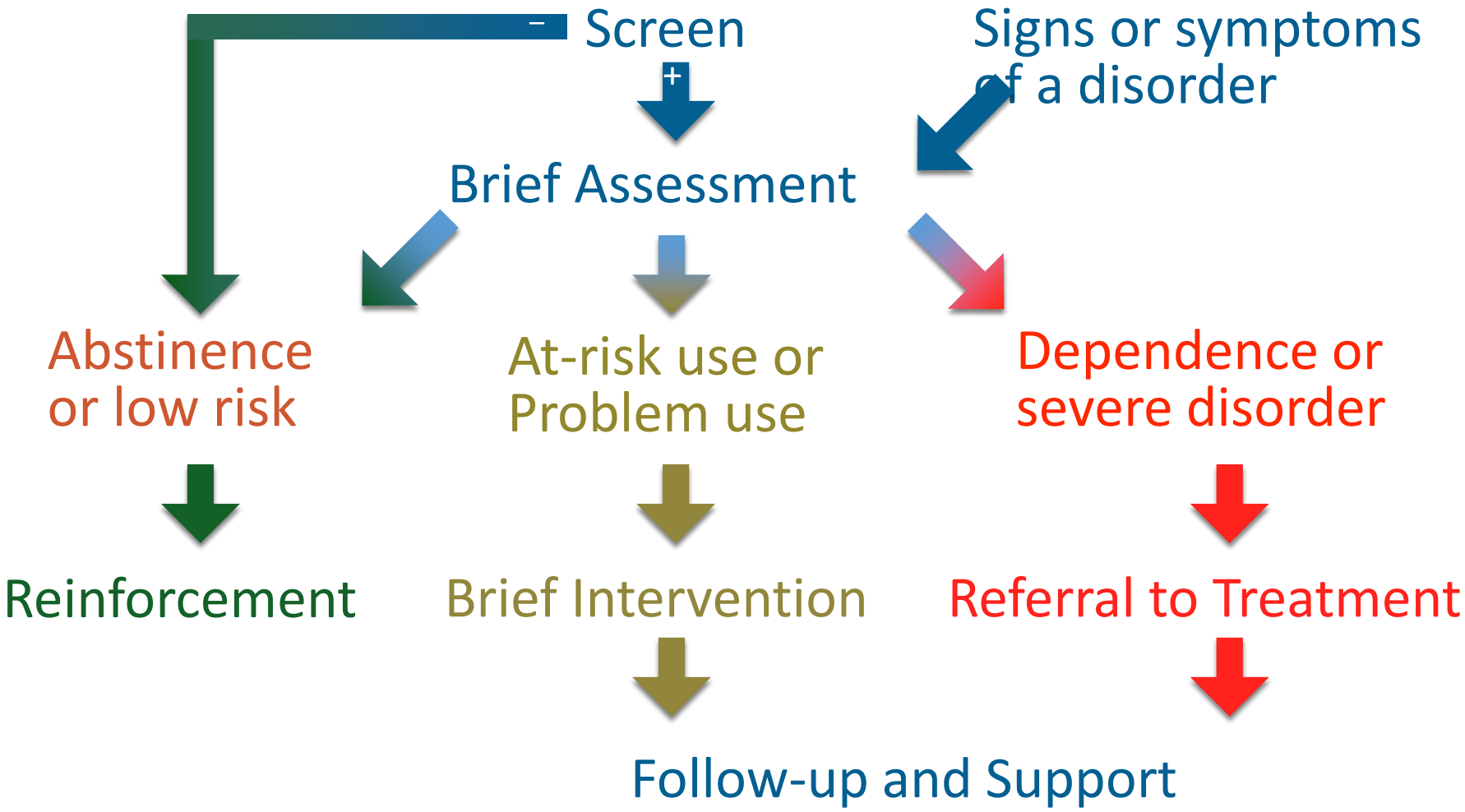
Definition of Brief Assessment



A structured process intended to categorize individuals with regard to their substance use

SBIRT Overview



Brief Assessment Methods

<u>Clinical Interview</u>

Substance use

Negative consequences

Dependence symptoms

<u>Questionnaires</u>

Substance use

Negative consequences

Dependence symptoms

Brief Assessment Questionnaires - Set 1 - Most commonly used

AUDIT

Alcohol Use Disorders Identification Test

DAST

Drug Abuse Screening Test

AUDIT

- Developed and validated by the World Health Organization
- Validated across many countries and cultures
- 10 multiple choice items on alcohol
- Each item has 3 to 5 response choices with point values
- Add point values for interpretation

AUDIT - Items 1 to 3

#	Question	Point Values and Responses				
		0	1	2	3	4
1	How often do you have a drink containing alcohol?	Never	Monthly or less	2 - 4 times a month	2 - 3 times a week	4 or more times a week
2	How many drinks containing alcohol do you have on a typical day when you are drinking?	1 or 2	3 or 4	5 or 6	7 to 9	10 or more
3	How often do you have more than X drinks on one occasion? (X = 4 for men, 3 for women)	Never	Less than monthly	Monthly	Weekly	Daily or almost daily

AUDIT - Items 4 to 8

0	1	2	3	4
Never	Less than monthly	Monthly	Weekly	Daily or almost daily

4	How often during the last year have you found that you were not able to stop drinking once you had started?
5	How often during the last year have you failed to do what was normally expected of you because of drinking?
6	How often during the last year have you needed a drink first thing in the morning to get yourself going after a heavy drinking session?
7	How often during the last year have you had a feeling of guilt or remorse after drinking?
8	How often during the last year have you been unable to remember what happened the night before because of your drinking?

AUDIT - Items 9 and 10

0	2	4
No	Yes, but not in the last year	Yes, during the last year

9	Have you or someone else been injured because of your drinking?
10	Has a relative, friend, doctor, or other health care worker been concerned about your drinking or suggested you cut down?

AUDIT - Overview of Items

#	Focus	Quantity and Frequency	Negative Consequences	Dependence symptoms
1	Frequency of alcohol consumption	✓		
2	Usual consumption on drinking days	✓		
3	Maximal consumption	✓		
4	Unable to stop drinking once started			✓
5	Unmet expectations		✓	
6	Needed a drink in the morning			✓
7	Guilt or remorse after drinking		✓	
8	Blackouts		✓	
9	Injury		✓	
10	Concern about drinking by others		✓	

AUDIT - Scoring

Risk Category	Total Score		Management
	Females	Males	
Low-risk use	0 to 6	0 to 7	Education, affirmation
At-risk use	7 to 15	8 to 15	Brief intervention
Problem use	16 to 19		Brief intervention + F/U*
Likely dependent	20 to 40		Referral

*F/U = follow-up

DAST

- 10 questions on drug use in the past 12 months
- All questions are yes-no
- Each question scores 0 points or 1 point
- Validated mainly on treatment populations, not general healthcare, mental healthcare or social services patients and clients
- Some items may improve with rewording

DAST - Items 1 to 5

In the past 12 months …		Points	
		Yes	No
1	Have you used drugs other than those required for medical reasons?	1	0
2	Do you abuse (use) more than one drug at a time?	1	0
3	Are you always able to stop using drugs when you want to?	0	1
4	Have you had “blackouts” or “flashbacks” as a result of drug use?	1	0
5	Do you ever feel bad or guilty about your drug use?	1	0

DAST - Items 6 to 10

In the past 12 months …		Points	
		Yes	No
6	Has your spouse or parents ever complained about your involvement with drugs?	1	0
7	Have you neglected your family because of your use of drugs?	1	0
8	Have you engaged in illegal activities in order to obtain drugs (other than possession)?	1	0
9	Have you experienced withdrawal symptoms (felt sick) when you stopped taking drugs?	1	0
10	Have you had medical problems as a result of your drug use (eg, memory loss, hepatitis, convulsions, bleeding, etc …)?	1	0

DAST - Overview of Items

#	Focus	Quantity and Frequency	Negative Consequences	Dependence symptoms
1	Drug use	✓		
2	Use of more than one drug at a time	✓		
3	Ability to stop using			✓
4	Blackouts and flashbacks		✓	
5	Feeling bad or guilty		✓	
6	Complaints by others		✓	
7	Neglect of family		✓	
8	Illegal activity		✓	
9	Withdrawal symptoms			✓
10	Medical complications		✓	

DAST - Scoring

Degree of Problems	Score	Management
None	0	Education, affirmation
Low	1	Education, affirmation
Low	2	Brief intervention
Moderate	3 to 5	Brief intervention + F/U*
Substantial	6 to 8	Intervention or referral
Severe	9 to 10	Referral

*F/U = follow-up

AUDIT & DAST

Advantages

- AUDIT is well-validated for patients and clients across many countries and cultures
- DAST can be skipped if there is no drug use in the prior year
- Set total of 20 items

Drawbacks

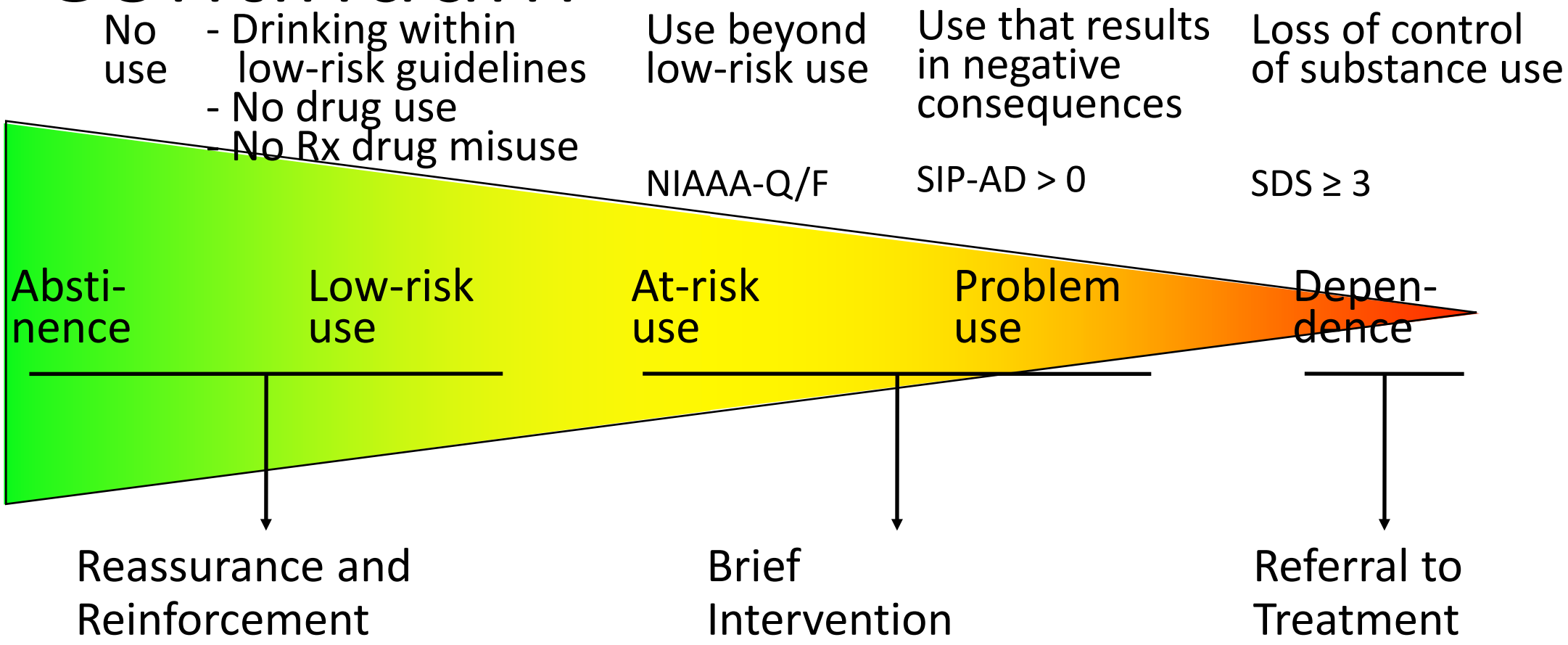
- AUDIT results do not always indicate adherence to low-risk drinking limits
- DAST is not well validated for general healthcare, mental health and social services populations
- Single-number feedback carries no implicit meaning for patients and clients

NIAAA-Q/F
NIAAA Quantity and Frequency Questions

SIP-AD
Short Index of Problems - Alcohol & Drugs

SDS
Severity of Dependence Scale

The Substance Use Continuum



NIAAA Quantity-Frequency Questions

1. How many days a week do you typically have some alcohol?

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}

Multiply together and compare to weekly low-risk limits:

- ≤ 14 for men
- ≤ 7 for women

3. What's the largest number of standard drinks you've had in an occasion in the last 3 months?

Compare to episodic low-risk limits:

- ≤ 4 for men
- ≤ 3 for women

http://www.aafp.org/afp/2002/0201/p441.html

SIP-AD

- Developed at the University of New Mexico
- 15 multiple choice questions on negative consequences
- All questions use same multiple-choice frequency scale
- Add up point values to indicate severity of consequences
- Questions apply to most life circumstances

Other Questionnaires

- TWEAK - for pregnant women
- CRAFFT - for adolescents
- CAGE

  - longer and less accurate than newer screens

  - should no longer be used

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Intervention and Referral

Goal is NOT acceptance of a diagnosis or label

Goal is behavior change

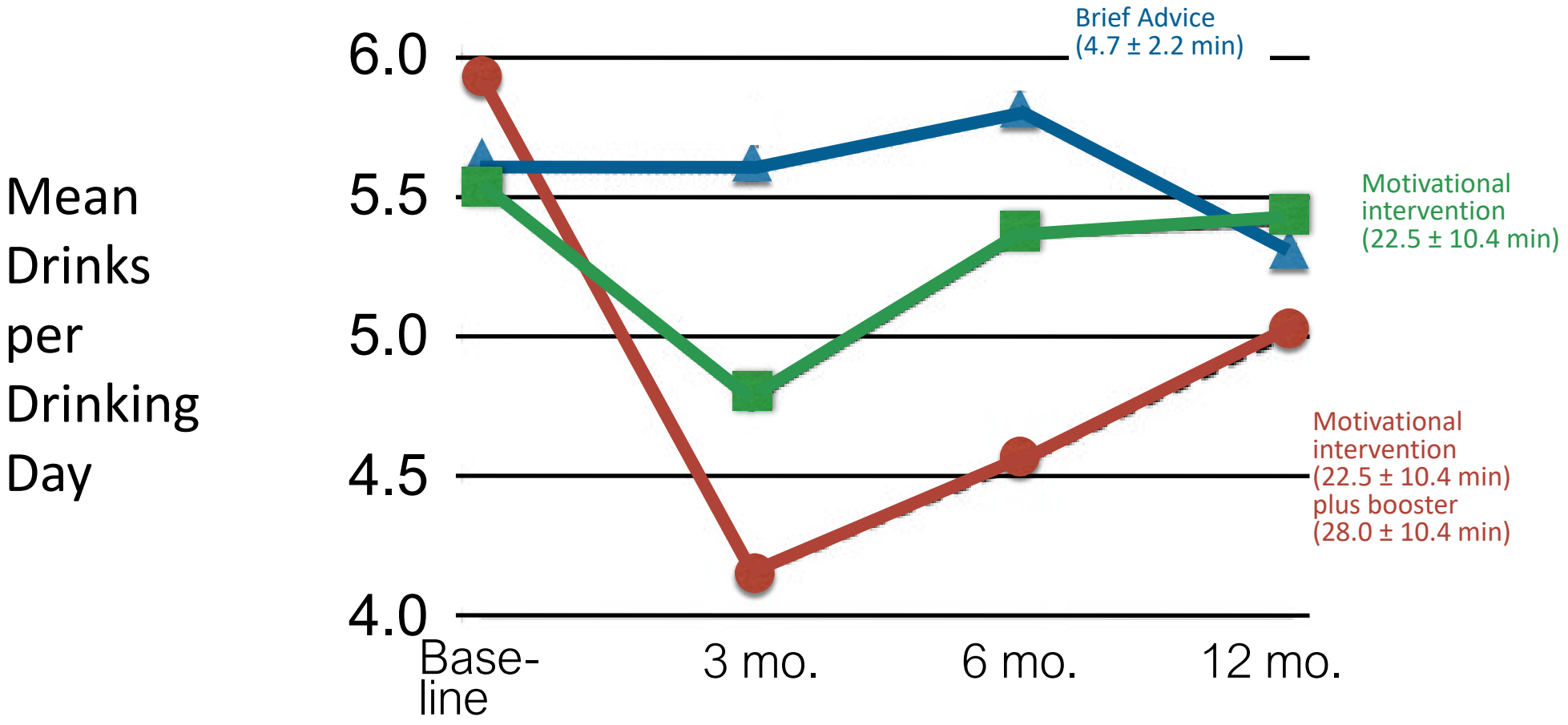
- Reduction or cessation of substance use
- Accessing another resource
  - Assessment by a specialist
  - Specialty-based treatment
  - Mutual help group

Intervention and Referral

Methods

- More provider-centered
  - Feedback - Recommendation
  - Education - Negotiation
- More patient-centered
  - Motivational interviewing (MI)

SBIRT: MI vs Brief Advice



Field, Annals of Surgery, 2013

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- Selected principles of motivational interviewing (Communication style, OARS, Spirit, EARS and ECT)
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- Pharmacotherapy

Evidence for MI

- 1200+ studies
- 200+ RCT
- MI improved treatment retention, adherence, and outcomes across a wide range of behaviors
- Generalizes well across cultures

Lundahl & Burke, J Clin Psych, 2009; Lundahl et al, Pt Educ Counseling, 2013

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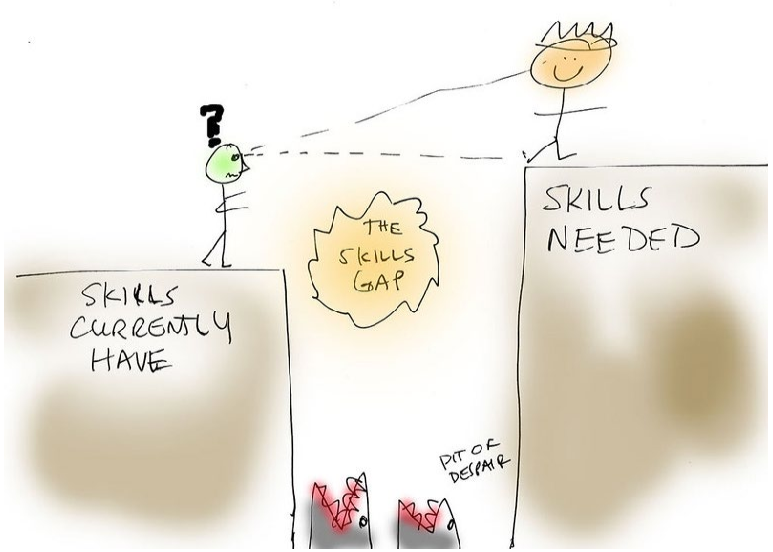
- Training evaluation and sign-out

Alcohol SBI Delivery by Healthcare Professionals

In 2011 (CDC Behavioral Risk Factor Surveillance System):	
Proportion of American adults who discussed their drinking with a healthcare professional	**16%**
In 2013 (SAMHSA National Survey on Drug Use and Health):	
Proportion of American adults who were asked about their drinking	**72%**
Proportion of at-risk drinkers who received any intervention, including referral	**5%**
Proportion of problem drinkers who received any intervention, including referral	**10%**
Proportion of dependent individuals who received any intervention, including referral	**26%**

McKnight-Eily, MMWR, 2014; Glass, Journal of General Internal Medicine, 2015

Barriers to Systematic BSI



- Motivational interviewing
- Behavior change planning
- Collaborative care

Inadequate financial incentive

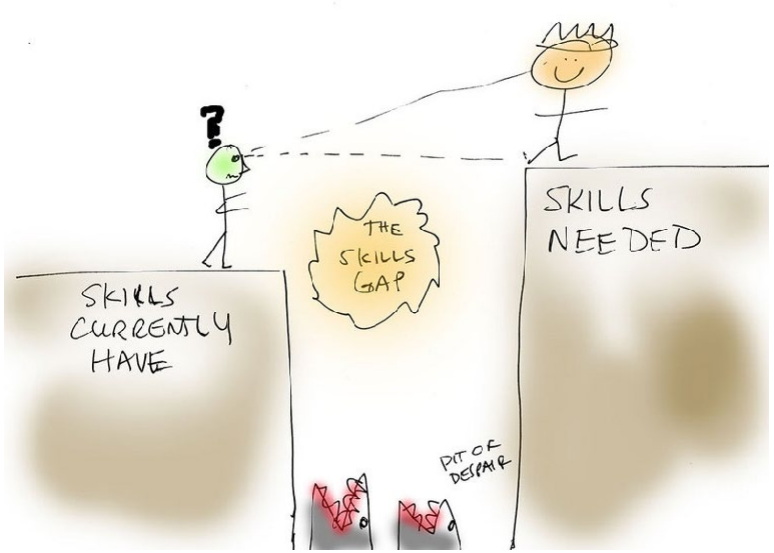
Brown, Population Health Management, 2011

Fee-for-Service Reimbursement

Payers	Code	Description	Reimbursement
WI Medicaid	H0049	Brief assessment	$35.35
WI Medicaid	H0050	15 min intervention	$20.23
Medicare	G0442	15 to 29 minute assessment and/or intervention	$17.33
Medicare	G0443	30+ minute assessment and/or intervention	$25.14
Commercial	99408	15 to 29 minute assessment and/or intervention	$33.41
Commercial	99409	30+ minute assessment and/or intervention	$65.51

ACOs and MIPS: SBIRT will improve performance

Barriers to Systematic BSI



- Motivational interviewing
- Behavior change planning
- Collaborative care

Inadequate financial incentive

Lack of time

Brown, Population Health Management, 2011

An example of SBIRT- WIPHL workflow

PRIMARY CASE SETTINGS

Patient completes screen while waiting

MA reviews screen

Coach sees patient at that visit

INPATIENT UNITS AND EMERGENCY DEPARTMENTS

Coach introduces self and conducts screening and additional services

Quality Improvement

- An iterative, data-driven approach to the analysis of performance and systematic efforts to improve it
- Steps
  - Establish metrics and targets to define success

Successful SBIRT

- Maximal numbers of individuals screened
- Maximal numbers of individuals with positive screens completing brief assessment
- Maximal numbers of individuals with positive brief assessments receiving intervention or referral
- Reduction in substance use shown possible in prior research

Recommended SBIRT Quality Metrics

	Metric	Metric Calculation
A	Screen completion	$\frac{\text{Number who completed screen}}{\text{Eligible adults}}$
B	Brief assessment completion	$\frac{\text{Number who completed brief assessment}}{\text{Number with a positive screen}}$
C	Intervention or referral delivery	$\frac{\text{Number who received brief intervention or referral}}{\text{Number with a positive brief assessment}}$
D	Substance use reduction	$\frac{\text{Actual reduction in use by intervention or referral recipients}}{\text{Expected reduction in use by intervention or referral recipients}}$

80% on A, B, and C is a good initial goal. Ultimate goal is 100%

Brown, American Journal of Medical Quality, 2015

Possible Behavioral Outcome Variables and Targets

	Variable	Target
Alcohol	Days of risky drinking in the prior 4 weeks	20% reduction
Drugs	Days of drug use in the prior 4 weeks	15% reduction

Brown, American Journal of Medical Quality, 2015; Brown, American Journal of Managed Care, 2014

Quality Improvement

- A formal, iterative approach to the analysis of performance and systematic efforts to improve it
- Steps
  - Establish metrics and targets
  - Plan - design service delivery & data collection
  - Do - implement the plan
  - Study - analyze the data
  - Act - consider options for improvement
- Repeat PDSA cycles until targets are met

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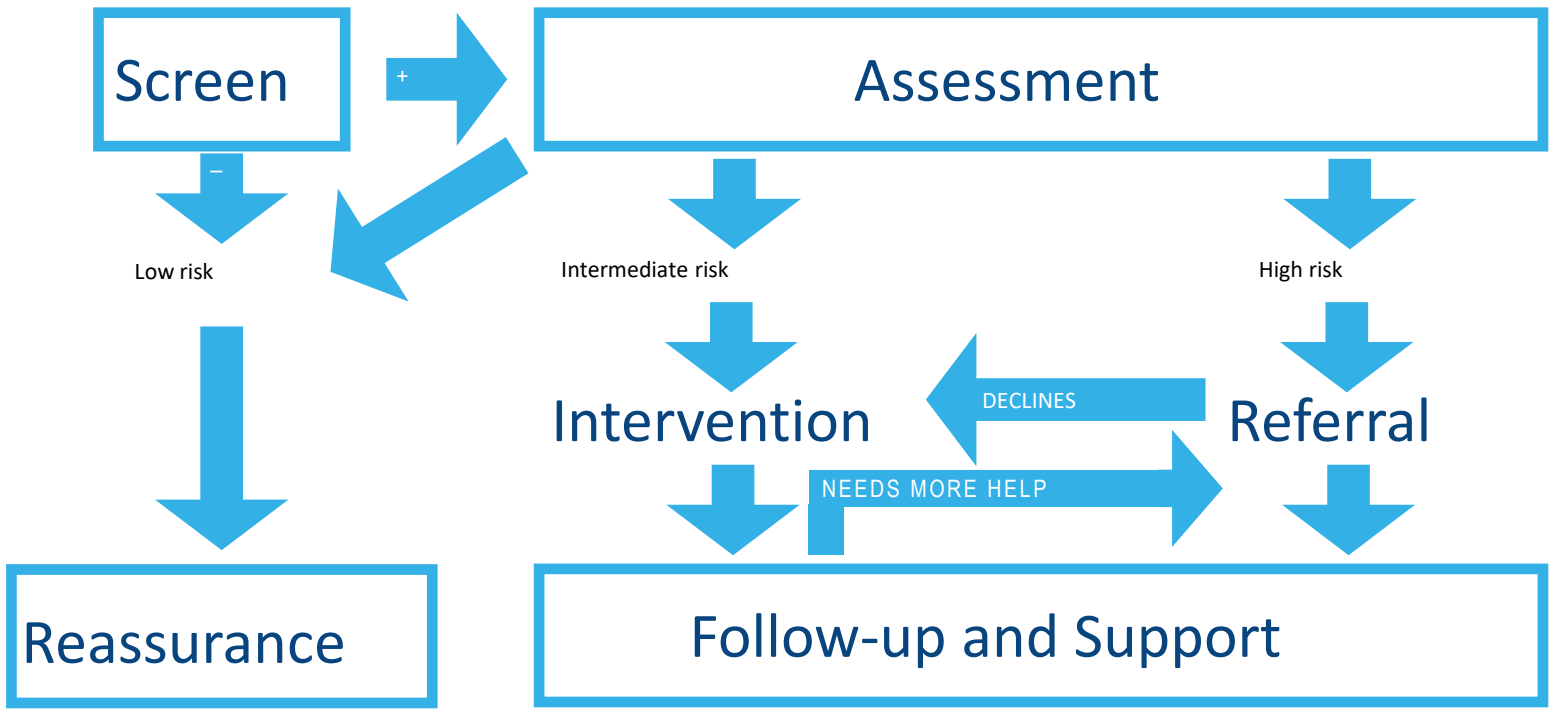
Referral for SUDs is Not Enough

- Referral is usually ineffective - THEN WHAT???
- Effective, FDA-approved pharmacotherapy for alcohol and opioid use disorders is vastly under-prescribed
  - For alcohol: disulfiram (Antabuse®), acamprosate (Campral®), and naltrexone (Vivitrol®)
  - For opioids: naltrexone (Vivitrol®), buprenorphine (Suboxone®)
- Primary care treatment of SUDs
  - Pharmacotherapy by PCP
  - Motivational Interviewing and Behavior Change Planning by Health Coach
  - Offer on-site counseling: 1-on-1 or group

Glass, Addiction, 2015; Brown, AJMC, 2014

Referral for SUDs is Not Enough

- Referral is more effective when patients who are motivated to change find that their initial self-management efforts are insufficient



The New York Times

HEALTH

Drugs to Aid Alcoholics See Little Use, Study Finds

By ANAHAD O'CONNOR MAY 13, 2014

Two medications could help tens of thousands of alcoholics quit drinking, yet the drugs are rarely prescribed to patients, researchers reported on Tuesday.

The medications, naltrexone and acamprosate, reduce cravings for alcohol by fine-tuning the brain's chemical reward system. They have been approved for treating alcoholism for over a decade. But questions about their efficacy and a lack of awareness among doctors have

By comparison, large studies of widely used drugs, like the cholesterol-lowering statins, have found that 25 to more than 100 people need treatment to prevent one cardiovascular event.

According to federal data, roughly 18 million Americans have an alcohol abuse disorder. Excessive drinking kills about 88,000 people a year.

"These drugs are really underused quite a bit, and our findings show that they can help thousands and thousands of people," said Dr. Daniel E. Jonas,

FDA-Approved for Alcohol Dependence

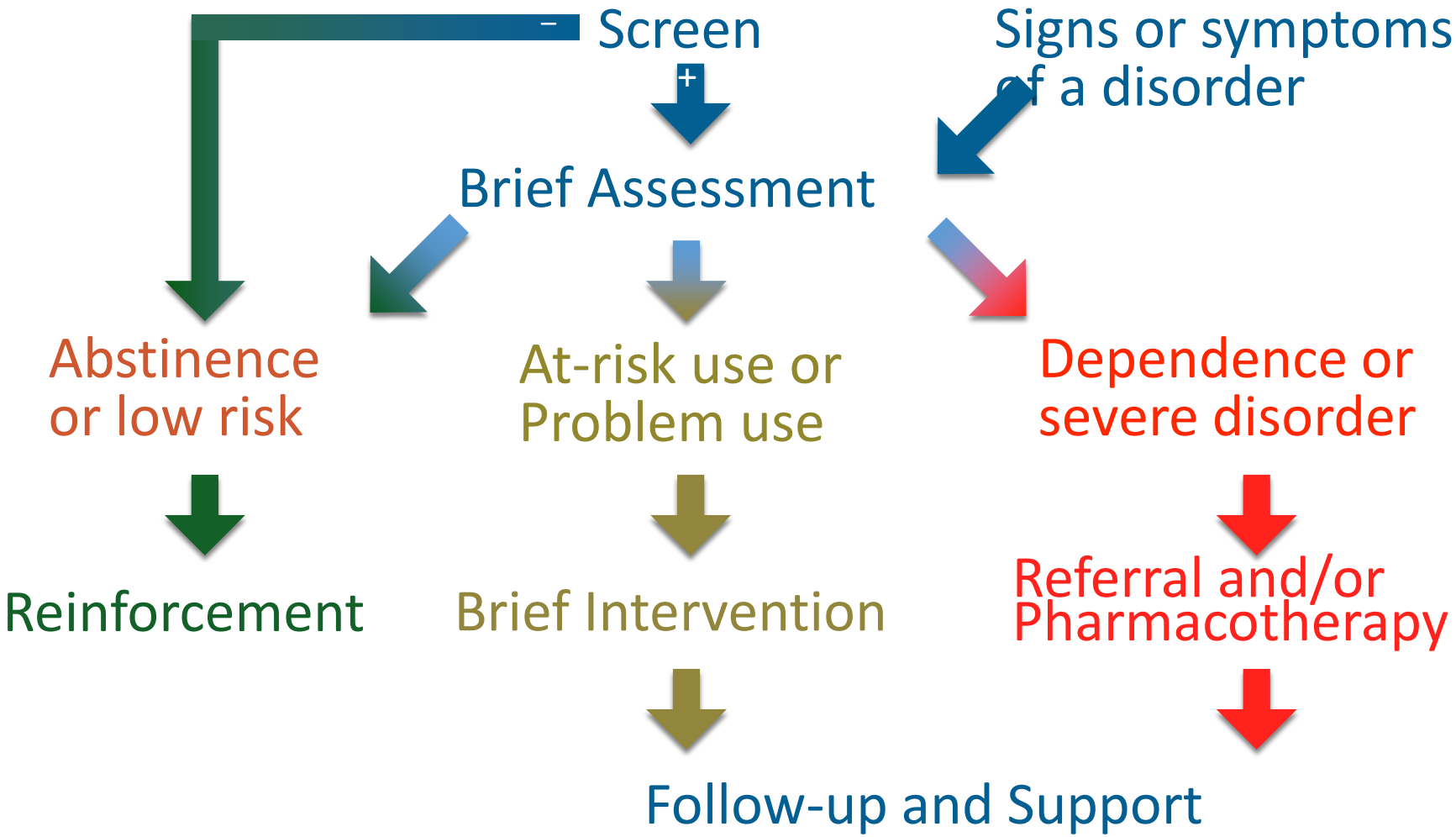
- Disulfiram (Antabuse®) - aversive agent
- Acamprosate (Campral®) - alleviates long-term, subacute withdrawal
- Naltrexone (Revia®, Vivitrol®) - reduces urges and cravings

No addiction potential • No euphoria • No street value

FDA-Approved for Opioid Dependence

- Naltrexone - opioid blocker - no restrictions on prescribing
- Methadone - restricted to federally licensed clinics for opioid dependence
- Buprenorphine
  - Physicians may prescribe for up to 30 patients after 8 hours of training
  - Physicians can apply to increase their limit to 275 patients
  - NPs and PAs may prescribe for 30 patients after 24 hours of training

SBIRT Overview



Summary

- Large prevalence & impacts of risky use, problem use & dependence
- Brief alcohol interventions are clearly effective
- Brief drug interventions are effective for many patients
- Referral to treatment has low effectiveness, so offer pharmacotherapy and behavioral support in general healthcare settings
- To provide universal SBIRT and similar services for other important behavioral issues, expand healthcare teams