City Health Information

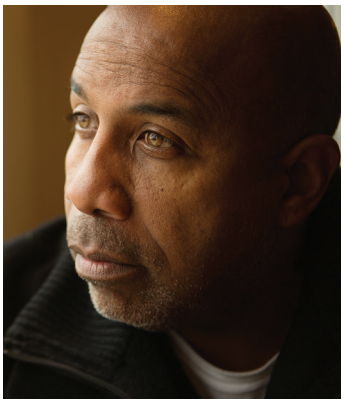
Volume 35 (2016) The New York City Department of Health and Mental Hygiene No 3; 21-28

Addressing Alcohol and Drug Use—An Integral Part of Primary Care

- **Unhealthy alcohol and drug use are treatable, but often go unrecognized and unaddressed in primary care.**
- **Incorporate a continuum of substance use health services into your practice.**
- **Use electronic health records and the clinical care team to facilitate service delivery.**

INSIDE THIS ISSUE (click to access)

Unhealthy substance use is a leading cause of preventable death in New York City. In 2014, nearly 1,800 New Yorkers died of alcohol-related causes.[1] Unintentional drug overdose deaths increased by 43% from 2010 to 2014 (8.2 vs 11.7 per 100,000 residents, respectively); in 2014, 79% of the 800 deaths that occurred involved an opioid.[2]



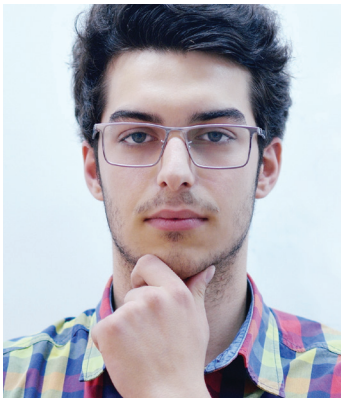
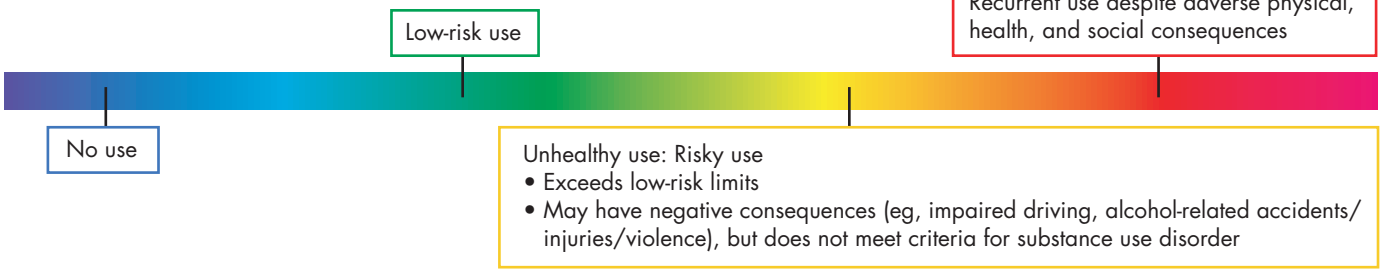


FIGURE. THE SPECTRUM OF SUBSTANCE USE[3,4]



While unhealthy substance use is common, it often goes unrecognized and unaddressed by health care providers. In 2013, an estimated 22 million people aged 12 and older in the United States had a substance use disorder in the past year, but only 2.5 million reported receiving treatment.[5] In 2011, only 1 in 6 adults in the United States reported ever discussing alcohol consumption with a health professional.[6] Primary care providers are ideally situated to identify and manage unhealthy substance use. Integrating substance use screening and management into primary care improves access to treatment, reduces stigma, improves patient outcomes (including treatment retention),[7,8] supports relapse prevention,[9] and allows you to address coexisting health risks and illness.[10] Prevent substance-related illness, injury, and death among your patients by providing

1. screening for unhealthy substance use,
2. intervention based on screening results, using brief intervention and referral to specialty care when appropriate,
3. pharmacotherapy,
4. relapse prevention support, and
5. harm reduction services.

BOX 1. SCREENING FOR ALCOHOL AND DRUG USE IN ADULTS[a,11-14]

Step A		Step B[b]
Alcohol Single-question screen: *How many times in the past year have you had X or more drinks in a day?* (X = 5 for men and 4 for women and for men >65) OR	If ≥1 →	AUDIT
AUDIT-C	If ≥4 for men, or ≥3 for women and patients aged >65 →	AUDIT
Drugs *How many times in the past year have you used an illegal drug or used a prescription medication for nonmedical reasons?*	If ≥1 →	DAST-10

[a] For adolescents, use the CRAFFT. Consult the 2011 American Academy of Pediatrics statement, Substance Use Screening, Brief Intervention, and Referral to Treatment for Pediatricians, for detailed guidance (**Resources for Providers: Screening Tools**).

[b] See **Resources for Providers: Screening Tools** for more options.

ROUTINELY SCREEN FOR UNHEALTHY SUBSTANCE USE

Substance use screening is a 2-step process (**Box 1**[11-14]). Step A identifies unhealthy use (**Figure**[3,4]) and Step B assesses severity of use. In a nonjudgmental tone, explain that you routinely ask all your patients about these issues and then ask the initial screening questions (Step A). For those who screen positive, assess severity of misuse with a validated tool (Step B).

USE THE SCREENING RESULT TO DETERMINE ACTION STEPS

Alcohol

If you used the AUDIT for Step B, the score will guide the action steps needed (**Box 2**[12,15-17]).

Drugs

If you used the DAST-10 for Step B, the score will guide the action steps needed (**Box 3**[14,18-20]).

BOX 2. ACTION STEPS FOR ALCOHOL USE BASED ON AUDIT SCORE[12,15-17]

AUDIT score	Action Steps
0-7 (low risk):	• Reinforce healthy behavior. • Give educational messages about low-risk alcohol use (no more than an average of 1 drink per day for women and for men aged >65 and 2 drinks per day for men).
8-19 (risky use):	• Offer a brief intervention to give personalized advice about alcohol use (see page 23).
≥20 (very high risk, probable disorder):	• Provide access to treatment, either in primary care or by referral.

Note: Pregnant women, people who take certain medications (eg, benzodiazepines), and people who have certain health conditions (eg, chronic hepatitis B or C infection) have different recommended thresholds for at-risk alcohol use (eg, no alcohol use); modify action steps accordingly, recognizing that although no use is recommended, cutting back is likely beneficial.

BACK TO PAGE 1

Brief intervention for unhealthy substance use

Brief intervention (**Boxes 4**[21-23] and **5**[24]) is a 5- to 10-minute conversation that helps patients understand the risks of continued substance use and strengthens their motivation to change.[25]

Address health needs of patients who use alcohol or drugs

Recognize and address the impact of drug use on the patient's overall health (**Box 6**).

OFFER PHARMACOTHERAPY*

Alcohol

Medications for alcohol use disorder are effective but considerably underused. Both acamprosate and naltrexone are associated with improved drinking outcomes in patients with alcohol use disorder.[26]

- **Naltrexone** given once daily reduces risk of return to any drinking and return to heavy drinking.[26]
- **Acamprosate** given 3 times a day reduces risk of return to any drinking.[26]

*See product prescribing information for details.

Opioids

Pharmacotherapy with opioid agonists (buprenorphine or methadone) is the most effective form of treatment for opioid use disorder; opioid agonist treatment reduces opioid misuse, decreases cravings, improves social functioning, and decreases mortality.[27-30]

- Buprenorphine is an office-based treatment that can be integrated into primary care along with management of patients' other health issues. Buprenorphine is an important clinical tool that should be available in primary care settings and offered to patients with opioid use disorder. To learn more about buprenorphine, including how to obtain training and a waiver to prescribe buprenorphine, see City Health Information: Buprenorphine—An Office-Based Treatment for Opioid Use Disorder or visit the Substance Abuse and Mental Health Services Administration website (**Resources for Providers: Buprenorphine**).
- Methadone is only available in specialized treatment settings; it may be a good option for patients who could benefit from more structured and co-located services.
- Long-acting naltrexone is another option for office-based treatment of opioid use disorder. Limited data show that long-acting naltrexone formulations may improve treatment retention without relapse to opioid use compared with placebo.[31,32]

PROVIDE RELAPSE PREVENTION SUPPORT

Be sure your patients understand that substance use disorders are chronic conditions that can follow a relapsing course[33] (**Box 7**[34,35]).

BOX 3. ACTION STEPS FOR DRUG USE BASED ON DAST-10 SCORE[14,18-20]

Score	Action Steps
0 (no problem):	Reinforce healthy behavior.
1-2 (low-level problem):	Provide simple education; monitor the patient and reassess in the future. Consider a brief intervention.[a]
3-5 (moderate-level problem):	Offer a brief intervention (see **Boxes 4** and **5**).
6-10 (substantial- to severe-level problem):	Assess further to diagnose a substance use disorder and to provide access to treatment.

[a] Evidence supporting brief interventions for drug use is lacking; however, several studies are under way.

BOX 4. BRIEF INTERVENTION FOR UNHEALTHY SUBSTANCE USE[21-23]

When providing brief intervention,

- Use a concerned, nonconfrontational approach.
- Provide clear, personalized advice about cutting down or abstaining.
- If possible, link alcohol use to a specific medical problem, such as hypertension or liver disease.
- Listen reflectively—summarize and repeat what your patient says.
- Involve the patient in setting mutually acceptable goals.
- Help the patient identify drinking triggers and discuss practical ways to cope.

See Helping Patients Who Drink Too Much and City Health Information—Brief Intervention for Excessive Drinking (**Resources for Providers: Screening, Brief Intervention, and Referral to Treatment**) for guidance.

BOX 5. WHAT TO SAY IN A BRIEF INTERVENTION—SAMPLE STATEMENTS AND QUESTIONS[24]

"Help me understand, through your eyes, some of the things you like about using X; how about some of the things you don't like about using X?"

"I have some information on reducing the risk of drinking and drug use; would you mind if I shared them with you?"

"What are some of the steps/options that will work for you to make a change?"

"What supports do you have for making this change?"

"Great ideas! Is it okay for me to write down your plan to keep with you as a reminder?"

BACK TO PAGE 1

There are several frameworks for helping patients avoid relapse, including the *PRIME*Care Model (for alcohol use disorders)[36] (**Resources for Providers: Relapse Prevention**) and "recovery management checkups" (quarterly screening, early re-intervention, and referral to treatment, provided by a nonphysician).[37] Mindfulness approaches that enable the patient to be aware of physical or emotional discomfort without automatically reacting are emerging and promising.[38]

Link patients to peer-based support

Social support, including support specific to substance use, can be an important aspect of recovery.[39,40] Alcoholics Anonymous, a mutual support group, is a widely used option that can be associated with reduced alcohol consumption.[41]

BOX 6. PREVENTIVE CARE CONSIDERATIONS FOR PATIENTS WHO USE DRUGS OR ALCOHOL

Screening	Comments
Sexual history[a]	All patients, especially • People who o Use injection drugs (and their partners) o Have multiple partners o Had a prior sexually transmitted infection • MSM • Transgender people • Sex workers
Pregnancy intention counseling (including plans to father a child)	• Offer contraception counseling • Explain risks of substance use for fetus/infant/pregnant women
Intimate partner violence	See NYC Health Department Intimate Partner Violence page
Reproductive and sexual coercion, other sexual trauma	See Addressing Intimate Partner Violence, Reproductive and Sexual Coercion and Seeking Safety
HIV	• Annually • Every 3-6 months if high risk See HIV Testing Laws and CDC Recommendations. Consider Pre- and Post-Exposure Prophylaxis (PrEP and PEP)
Hepatitis B	Once
Hepatitis C	Annually for all patients who use drugs (see HCV Testing and Linkage to Care)
Tuberculosis	• Annually • PPD or QuantiFERON
Vaccination[b,c]	
Hepatitis A and B	All patients who use drugs
Pneumococcal (PPSV23)	Patients aged >18 years with alcohol use disorders

[a] See www.nycptc.org/x/STD_Screening_chart_2015.pdf for screening guidelines and www.nycptc.org/x/STD_TreatmentTable_2015.pdf for treatment guidelines.
[b] See www.cdc.gov/vaccines/schedules/hcp/adult.html for adult immunization recommendations.
[c] Vaccination recommendations given here that may be different from routine recommendations.
MSM, men who have sex with men; PPD, purified protein derivative.

The use of peer support workers who are in recovery to offer support, encouragement, hope, and mentorship is a promising practice.[42-44]

PROVIDE HARM REDUCTION SERVICES

Prescribe naloxone

Naloxone safely reverses opioid overdose and can be given to an overdosing person by trained friends and family members. Naloxone presents no potential for abuse and has not been shown to increase risky drug use.[45]

- **Assess risk factors** for opioid overdose (**Box 8**).
- Talk to your patients about risk factors for opioid overdose. Explain that solitary use is also a risk factor.
- Offer a naloxone prescription to your patients at risk for opioid overdose.[46] Any trained clinical staff can teach patients about naloxone use.
- Explain that harm reduction programs and many pharmacies also offer naloxone. See **Resources for Providers: Opioid Overdose Prevention** for additional information.

BOX 7. SUPPORTING RELAPSE PREVENTION[34,35]

- Explain that relapses are just temporary setbacks and not a sign that treatment isn't working.
- Help the patient identify triggers for relapse.
- Teach coping skills.
- Approach relapses nonjudgmentally. Patients who relapse are likely to feel negative feelings like guilt, shame, and anxiety. Being nonjudgmental will help them learn from a relapse and cope more effectively in the future.
- Involve the family whenever possible, with the patient's permission. Refer family members to peer support groups to learn about their roles in the patient's recovery.

BOX 8. INDICATIONS FOR NALOXONE PRESCRIBING

- High-dose opioid prescription (≥100 total morphine milligram equivalents/day)
- Chronic opioid therapy (≥3 months)
- Opioid misuse/illicit use, including[a]:
  - o Current or past history
  - o Current treatment for opioid use disorder (eg, methadone, buprenorphine, naltrexone, treatment without pharmacotherapy)
  - o Opioid overdose history
- Family member or friend of an individual who is at risk for opioid overdose.

[a] Refers to all opioid drug types (eg, opioid analgesic prescription, heroin) and all routes of administration (eg, injection drug use, oral, intranasal).
Note: Patients who meet any of the first 3 criteria may be at higher risk if they either experience decreased tolerance after a period of abstinence (eg, incarceration, hospitalization, detoxification) or use other central nervous system depressants (eg, benzodiazepines, alcohol) concurrently with opioids.
See Naloxone for Overdose Prevention: Prescribing Guidance for Clinical Settings for more information.

BACK TO PAGE 1

Prescribe sterile syringes

The New York State Expanded Syringe Access Program (ESAP) allows licensed pharmacies, health care facilities, and providers to sell or provide up to 10 syringes at one time to any person aged 18 or older.

Become an ESAP provider and prescribe sterile syringes to your patients who inject drugs (registration is required). Alternatively, refer your patients to ESAP pharmacies where syringes are dispensed without a prescription or to a harm reduction program that provides this service.[47] See **Resources for Providers: Syringe Services** for information on how to register with ESAP and lists of ESAP pharmacies and harm reduction programs.

SUMMARY

Unhealthy substance use is common and treatable in the primary care setting. Routinely screen for substance use and provide brief intervention, pharmacotherapy, relapse prevention support, harm reduction services, and referrals, as needed. ◆

INTEGRATING SUBSTANCE USE CARE INTO PRACTICE WORKFLOW[48-50]

- Include screening in the electronic health record—it may improve efficiency and fulfill provisions of the Affordable Care Act.
- Consider distributing the work broadly across the care team, including nurses and medical assistants.
- With patient's permission, communicate and coordinate with behavioral health providers through coordinated care, co-located care, or fully integrated care where primary care and behavioral health providers share location, treatment plan, and organizational support.

HOW TO ADDRESS SUBSTANCE USE IN PRIMARY CARE

- Routinely screen adults for substance use.
- Use screening results to determine action steps.
- Educate patients about risks of unhealthy substance use.
- Offer pharmacotherapy.
- Offer relapse prevention support.
- Provide harm reduction services.

RESOURCES FOR PROVIDERS

Alcohol and Drug Use

- New York City Health Department of Health and Mental Hygiene. Alcohol & Drug Use: www1.nyc.gov/site/doh/health/health-topics/alcohol-and-drug-use.page
  Information on drugs and health, alcohol and health, overdose prevention, and substance use treatment services

Screening Tools

- AUDIT: libdoc.who.int/hq/2001/WHO_MSD_MSB_01.6a.pdf
- ASSIST: www.who.int/substance_abuse/activities/assist/en/index.html
- NIDA Quick Screen and NIDA-Modified ASSIST: www.drugabuse.gov/publications/resource-guide-screening-drug-use-in-general-medical-settings/nida-quick-screen
- CRAFFT (for adolescents): ceasar-boston.org/clinicians/crafft.php
  - American Academy of Pediatrics Committee on Substance Abuse. *Substance Use Screening, Brief Intervention, and Referral to Treatment for Pediatricians:* pediatrics.aappublications.org/content/128/5/e1330.full/
- DAST-10: www.drugabuse.gov/sites/default/files/files/DAST-10.pdf

Screening, Brief Intervention, and Referral to Treatment

- NYC Health Department
  - Alcohol & Drug Use: Screening, Brief Intervention and Referral to Treatment: www1.nyc.gov/site/doh/providers/health-topics/screening-brief-intervention-and-referral-to-treatment.page
  - City Health Information: Brief Intervention for Excessive Drinking
- American Academy of Pediatrics Committee on Substance Abuse. *Substance Use Screening, Brief Intervention, and Referral to Treatment for Pediatricians:* pediatrics.aappublications.org/content/128/5/e1330.full
- National Institute on Alcohol Abuse and Alcoholism. *Helping Patients Who Drink Too Much: A Clinician's Guide.* Updated 2005 Edition: pubs.niaaa.nih.gov/publications/Practitioner/CliniciansGuide2005/clinicians_guide.htm
- New York State Office of Alcoholism and Substance Abuse Services (OASAS). Screening, Brief Intervention, and Referral to Treatment: www.oasas.ny.gov/admed/sbirt/index.cfm
- Institute for Research, Education & Training in Addictions. SBIRT toolkit: ireta.org/improve-practice/toolkitforsbirt/
- Substance Abuse and Mental Health Services Administration (SAMHSA). Screening, Brief Intervention, and Referral to Treatment (SBIRT): www.samhsa.gov/sbirt

Buprenorphine

- NYC Health Department
  - Buprenorphine Training and Technical Support Initiative: *For more information, e-mail:* buprenorphine@health.nyc.gov
  - City Health Information: Buprenorphine—An Office-Based Treatment for Opioid Use Disorder
- Providers' Clinical Support System (PCSS) for Opioid Therapies: pcss-o.org
  Includes mentoring program
- SAMHSA. General information on buprenorphine, waiver process, training: www.samhsa.gov/

(Continued on next page)

BACK TO PAGE 1

(Continued from previous page)

Relapse Prevention

- The PRIMECare Model of Maintenance Care for Moderated Alcohol Use: www.ncbi.nlm.nih.gov/pmc/articles/PMC1924751/ [See Appendix]

Treatment Locators

- SAMHSA Behavioral Health Treatment Services Locator: findtreatment.samhsa.gov/
- OASAS Treatment Provider Search and Directory: www.oasas.ny.gov/treatment/directory.cfm/

Opioid Overdose Prevention

- NYC Health Department
  - o Overdose Prevention Resources for Providers: www1.nyc.gov/site/doh/providers/health-topics/overdose-prevention-resources-for-providers.page
    Includes guidance on prescribing naloxone in clinical settings and a training video
  - o Naloxone and Overdose Prevention in Pharmacies: www1.nyc.gov/site/doh/providers/health-topics/naloxone-and-overdose-prevention-in-pharmacies.page
    Includes a list of participating NYC pharmacies and a patient handout
- New York State's Opioid Overdose Prevention Program: www.health.ny.gov/diseases/aids/general/opioid_overdose_prevention/

Syringe Services

- New York State Department of Health. Expanded Syringe Access Program (ESAP): Overview of the Law and Regulations: www.health.ny.gov/diseases/aids/consumers/prevention/needles_syringes/esap/overview.htm
- ESAP Pharmacy Directory: www.health.ny.gov/diseases/aids/consumers/prevention/needles_syringes/esap/docs/esap_pharmacies.pdf

City Health Information (CHI) Archives:
www1.nyc.gov/site/doh/providers/resources/chi-archives.page

- Buprenorphine—An Office-based Treatment for Opioid Use Disorder
- Brief Intervention for Excessive Drinking

RESOURCES FOR PATIENTS

Alcohol and Drug Use

- New York City Department of Health and Mental Hygiene.
  Alcohol & Drug Use: www1.nyc.gov/site/doh/health/health-topics/alcohol-and-drug-use.page
  Information on drugs and health, alcohol and health, overdose prevention, and substance use treatment services

Publications

- NYC Health Department
  - o Health Bulletins
    - *Cocaine: Do You Have a Problem?:* www1.nyc.gov/assets/doh/downloads/pdf/public/dohmhnews10-06.pdf
    - *Marijuana: Is it holding you back?:* www1.nyc.gov/assets/doh/downloads/pdf/public/dohmhnews7-11.pdf
    - *Excessive Drinking Is Dangerous:* www1.nyc.gov/assets/doh/downloads/pdf/public/dohmhnews9-08.pdf
    - *Prescription Painkillers: The Dangers of Misuse:* www1.nyc.gov/assets/doh/downloads/pdf/public/dohmhnews11-01.pdf

Treatment Locators

- LIFENET website: www1.nyc.gov/site/doh/health/health-topics/crisis-emergency-services-lifenet.page
- Substance Abuse and Mental Health Services Administration. Behavioral Health Treatment Services Locator: findtreatment.samhsa.gov/
- New York State Office of Alcoholism and Substance Abuse Services. Treatment Provider Search and Directory: www.oasas.ny.gov/treatment/directory.cfm

BACK TO PAGE 1

REFERENCES

1. New York City Department of Health and Mental Hygiene. Bureau of Vital Statistics. Summary of Vital Statistics 2014—The City of New York. www1.nyc.gov/assets/doh/downloads/pdf/vs/2014sum.pdf. Accessed June 9, 2016.
2. Paone D, Tauzon E, Nolan M, Mantha S. Unintentional drug poisoning (overdose) deaths involving opioids in New York City, 2000-2014. *Epi Data Brief.* 2015; No 66. Updated March 2016. www1.nyc.gov/assets/doh/downloads/pdf/epi/databrief66.pdf. Accessed May 13, 2016.
3. Saitz R. Clinical practice: unhealthy alcohol use. *N Engl J Med.* 2005;352(6):596-607.
4. American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders.* 5th ed. Arlington, VA: American Psychiatric Association; 2013.
5. Substance Abuse and Mental Health Services Administration. Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings. www.samhsa.gov/data/sites/default/files/NSDUHresultsPDFWHTML2013/Web/NSDUHresults2013.pdf. Accessed April 5, 2016.
6. McKnight-Eily LR, Liu Y, Brewer RD, et al; Centers for Disease Control and Prevention (CDC). Vital signs: communication between health professionals and their patients about alcohol use—44 states and the District of Columbia, 2011. *MMWR Morb Mortal Wkly Rep.* 2014;63(1):16-22.
7. O'Connor PG, Oliveto AH, Shi JM, et al. A randomized trial of buprenorphine maintenance for heroin dependence in a primary care clinic for substance users versus a methadone clinic. *Am J Med.* 1998;105(2):100-105.
8. Willenbring ML, Olson DH. A randomized trial of integrated outpatient treatment for medically ill alcoholic men. *Arch Intern Med.* 1999;159(16):1946-1952.
9. Friedmann PD, Saitz R, Samet JH. Management of adults recovering from alcohol or other drug problems: relapse prevention in primary care. *JAMA.* 1998;279(15):1227-1231.
10. Shim R, Rust G. Primary care, behavioral health, and public health: partners in reducing mental health stigma. *Am J Public Health.* 2013;103(5):774-776.
11. Smith PC, Schmidt SM, Allensworth-Davies D, Saitz R. Primary care validation of a single-question alcohol screening test. *J Gen Intern Med.* 2009;24(7):783-788.
12. Babor TF, Higgins-Biddle JC, Saunders JB, Monteiro MG. *The Alcohol Use Disorders Identification Test (AUDIT): Guidelines for Use in Primary Care.* 2nd ed. Geneva, Switzerland: World Health Organization; 2001. apps.who.int/iris/bitstream/10665/67205/1/WHO_MSD_MSB_01.6a.pdf. Accessed April 22, 2016.
13. Smith PC, Schmidt SM, Allensworth-Davies D, Saitz R. A single-question screening test for drug use in primary care. *Arch Intern Med.* 2010;170(13):1155-1160.
14. National Institute on Drug Abuse. DAST-10. www.drugabuse.gov/sites/default/files/files/DAST-10.pdf. Accessed May 17, 2016.
15. American College of Obstetricians and Gynecologists. Committee opinion no. 496: At-risk drinking and alcohol dependence: obstetric and gynecologic implications. *Obstet Gynecol.* 2011;118(2 Pt 1):383-388.
16. New York City Department of Health and Mental Hygiene. Judicious prescribing of benzodiazepines. *City Health Information.* 2016;35(2):13-20. www1.nyc.gov/assets/doh/downloads/pdf/chi/chi-35-2.pdf.
17. American Association for the Study of Liver Disease. HCV Testing and Linkage to Care. www.hcvguidelines.org/full-report/hcv-testing-and-linkage-care. Accessed May 3, 2016.
18. Vermont Department of Health, Screening, Brief Intervention, & Referral to Treatment. DAST 10 Scoring Guide and Interpretation. sbirt.vermont.gov/dast-10-scoring-guide/. Accessed April 22, 2016.
19. Skinner HA. The drug abuse screening test. *Addict Behav.* 1982;7(4):363-371.
20. Massachusetts Department of Public Health. SBIRT: A Step-by-Step Guide. June 2012. www.masbirt.org/sites/www.masbirt.org/files/documents/toolkit.pdf. Accessed April 22, 2016.
21. Ockene JK, Adams A, Hurley TG, Wheeler EV, Hebert JR. Brief physician- and nurse practitioner-delivered counseling for high-risk drinkers: does it work? *Arch Intern Med.* 1999;159(18):2198-2205.
22. Fleming MF, Barry KL, Manwell LB, Johnson K, London R. Brief physician advice for problem alcohol drinkers. A randomized controlled trial in community-based primary care practices. *JAMA.* 1997;277(13):1039-1045.
23. Bertholet N, Daeppen JB, Wietlisbach V, Fleming M, Burnand B. Reduction of alcohol consumption by brief alcohol intervention in primary care: systematic review and meta-analysis. *Arch Intern Med.* 2005;165(9):986-995.
24. Boston University School of Public Health, The BNI ART Institute. www.bu.edu/bniart/. Accessed April 22, 2016.
25. Babor TF, Higgins-Biddle TF. *Brief Intervention for Hazardous and Harmful Drinking: A Manual for Use in Primary Care.* Geneva, Switzerland: World Health Organization; 2001. whqlibdoc.who.int/hq/2001/WHO_MSD_MSB_01.6b.pdf. Accessed May 3, 2016.
26. Jonas DE, Amick HR, Feltner C, et al. Pharmacotherapy for adults with alcohol use disorders in outpatient settings: a systematic review and meta-analysis. *JAMA.* 2014;311(18):1889-1900. doi: 10.1001/jama.2014.3628.
27. Cornish R, Macleod J, Strang J, Vickerman P, Hickman M. Risk of death during and after opiate substitution treatment in primary care: prospective observational study in UK General Practice Research Database. *BMJ.* 2010;341:c5475. doi: 10.1136/bmj.c5475.
28. Fiellin DA, Moore BA, Sullivan LE, et al. Long-term treatment with buprenorphine/naloxone in primary care: results at 2-5 years. *Am J Addict.* 2008;17(2):116-120.
29. Ball JC, Ross A. *The Effectiveness of Methadone Maintenance Treatment: Patients, Programs, Services, and Outcomes.* New York, NY: Springer-Verlag; 1991.
30. Davoli M, Bargagli AM, Perucci CA, et al; VEdeTTE Study Group. Risk of fatal overdose during and after specialist drug treatment: the VEdeTTE study, a national multi-site prospective cohort study. *Addiction.* 2007;102(12):1954-1959.
31. Krupitsky E, Zvartau E, Blokhina E, et al. Randomized trial of long-acting sustained-release naltrexone implant vs oral naltrexone or placebo for preventing relapse to opioid dependence. *Arch Gen Psychiatry.* 2012;69(9):973-981.
32. Lee JD, Friedmann PD, Kinlock TW, et al. Extended-release naltrexone to prevent opioid relapse in criminal justice offenders. *N Engl J Med.* 2016;374(13):1232-1242.
33. Scott CK, Foss MA, Dennis ML. Pathways in the relapse-treatment-recovery cycle over 3 years. *J Subst Abuse Treat.* 2005;28(Suppl 1):S63-S72.
34. Hendershot CS, Witkiewitz K, George WH, Marlatt GA. Relapse prevention for addictive behaviors. *Subst Abuse Treat Prev Policy.* 2011;6:17. doi: 10.1186/1747-597X-6-17.
35. Friedmann PD, Saitz R, Samet JH. Management of adults recovering from alcohol or other drug problems: relapse prevention in primary care. *JAMA.*1998;279(16):1227-1231.
36. Friedmann PD, Rose J, Hayaki J, et al. Training primary care clinicians in maintenance care for moderated alcohol use. *J Gen Intern Med.* 2006;21(12):1269-1275.
37. Scott CK, Dennis ML, Foss MA. Utilizing recovery management checkups to shorten the cycle of relapse, treatment reentry, and recovery. *Drug Alcohol Depend.* 2005;78(3):325-338.
38. Witkiewitz K, Lustyk MK, Bowen S. Retraining the addicted brain: a review of hypothesized neurobiological mechanisms of mindfulness-based relapse prevention. *Psychol Addict Behav.* 2013;27(2):351-365.
39. Groh DR, Jason LA, Davis MI, Olson BD, Ferrari JR. Friends, family, and alcohol abuse: an examination of general and alcohol-specific social support. *Am J Addict.* 2007;16(1):49-55.
40. Bond J, Kaskutas LA, Weisner C. The persistent influence of social networks and alcoholics anonymous on abstinence. *J Stud Alcohol.* 2003;64(4):579-588.

(Continued on next page)

BACK TO PAGE 1

City Health Information

Volume 35 (2016) The New York City Department of Health and Mental Hygiene No. 3; 21-28

NYC Health
nyc.gov/health

42-09 28th Street, Long Island City, NY 11101 (347) 396-2914

ASK CHI
Have questions or comments about addressing alcohol and drug use in primary care?
E-mail
AskCHI@health.nyc.gov

E-mail *City Health Information* at: nycdohrp@health.nyc.gov
New York City Department of Health and Mental Hygiene.
Addressing alcohol and drug use—an integral part of primary care.
City Health Information. 2016;35(3):21-28.

(Continued from previous page)

41. Humphreys K, Blodgett JC, Wagner TH. Estimating the efficacy of Alcoholics Anonymous without self-selection bias: an instrumental variables re-analysis of randomized clinical trials. *Alcohol Clin Exp Res.* 2014;38(11):2688-2694. doi:10.1111/acer.12557.
42. Tracy K, Burton M, Nich C, Rounsaville B. Utilizing peer mentorship to engage high recidivism substance-abusing patients in treatment. *Am J Drug Alcohol Abuse.* 2011;37(6):525-531.
43. Davidson L, Chinman M, Sells D, Rowe M. Peer support among adults with serious mental illness: a report from the field. *Schizophr Bull.* 2006;32(3):443-450.
44. Davidson L, Bellamy C, Guy K, Miller R. Peer support among persons with severe mental illnesses: a review of evidence and experience. *World Psychiatry.* 2012;11(2):123-128.
45. Kim D, Irwin KS, Khoshnood K. Expanded access to naloxone: options for critical response to the epidemic of opioid overdose mortality. *Am J Public Health.* 2009;99(3):402-407. doi: 10.2105/AJPH.2008.136937.
46. New York City Department of Health and Mental Hygiene. Naloxone for Overdose Prevention: Prescribing Guidance for Clinical Settings. www1.nyc.gov/assets/doh/downloads/pdf/basas/naloxone-presc-guidance.pdf. Accessed May 16, 2016.
47. Tesoriero JM, Battles HB, Klein SJ, Kaufman E, Birkhead GS. Expanding access to sterile syringes through pharmacies: assessment of New York's Expanded Syringe Access Program. *J Am Pharm Assoc (2003).* 2009;49(34):407-416.
48. Tai B, McLellan AT. Integrating information on substance use disorders into electronic health record systems. *J Subst Abuse Treat.* 2012;43(1):12-19. doi: 10/10.1016/j.jsat.2011.10.010.
49. Babor T, Higgins-Biddle J, Dauser D, Higgins P, Burleson JA. Alcohol screening and brief intervention in primary care settings: implementation models and predictors. *J Stud Alcohol.* 2005;66(3):361-368.
50. Committee on Crossing the Quality Chasm: Adaptation to Mental Health and Addictive Disorders; Board on Health Care Services; Institute of Medicine. *Improving the Quality of Health Care for Mental and Substance-Use Conditions.* Washington, DC: National Academies Press; 2006.

BACK TO PAGE 1