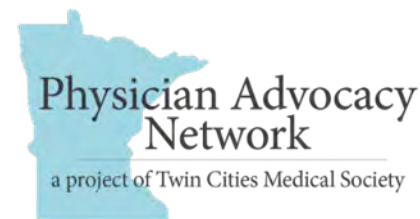




Addressing Nicotine Dependence: An Integrated Approach

Pete Dehnel, MD
Medical Director
Physician Advocacy Network

Grace Higgins, MPH
Project Coordinator
Physician Advocacy Network





Outline

1. Why is treatment important?
2. Nicotine Replacement Therapy
3. Other Medications
4. Combination NRT
5. Insurance Coverage
6. Physician Advocacy Network
7. Questions



Why is treatment important?

SMOKING

causes more deaths each year
than all of these combined:



- Human immunodeficiency virus (HIV)
- Illegal drug use
- Alcohol use
- Motor vehicle injuries
- Microbial agents
- Toxic agents

480,000 deaths



caused by cigarette
smoking each year



Having an Impact

- Could save 42,000 lives if physicians advised 90% of smokers to quit and offered medication/support (AAFP)
- Tobacco cessation more than doubles when evidence-based intervention programs are used (AAFP)

Health Effects of Smoking



Ears
Hearing loss



Throat
Cancer, voice deepening



Lungs
Wheezing, trouble breathing or shortness of breath, pain and tightness in the chest, frequent coughing or heavy chest colds, emphysema, chronic bronchitis, chronic obstructive pulmonary disease or asthma, lung cancer



Stomach
Stomach ulcers



Blood
High blood pressure, increased white blood cell count, weakened immune system, taking longer to heal



Brain
Stroke



Eyes
Cataracts, blindness, loss of night vision



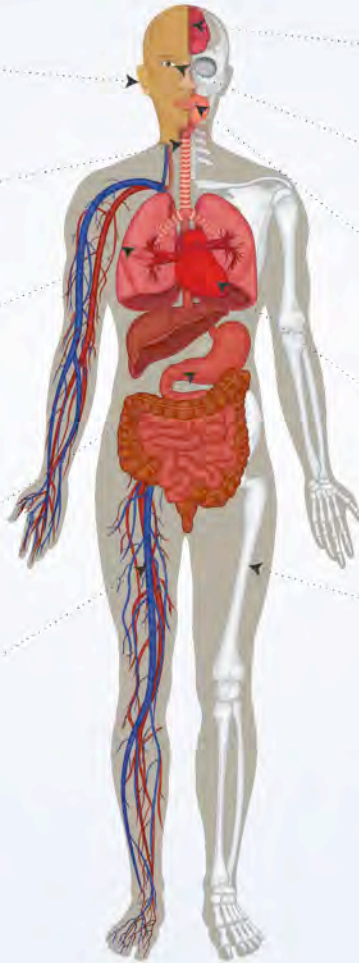
Mouth
Oral cancer, cavities, bad breath, sores in the mouth



Heart
Heart disease, heart attack, bad circulation, tingling in hands and feet



Bones
Bone disease, bone density loss, more broken bones



Smoking affects many parts of the body

Smoking increases the risk of many types of cancer including:

- lung
- throat
- mouth
- esophageal
- stomach
- kidney
- bladder
- cervical

If you smoke, you are **10 times** more likely to get cancer than a person who has never smoked.

smokefree60+

Within 48 hours
your sense of taste and smell improves.¹

In 5 years
your risk of a stroke has dramatically decreased.¹

Within 3 months
your lung function begins to improve.¹²

Within 9 months
coughing and shortness of breath decrease.¹³

In 12 hours
the carbon monoxide level in your blood drops to normal.¹⁴

In 12 months
your risk of coronary heart disease is cut in half.¹

In 1 year
a pack-a-day smoker will save over \$2,000.¹⁵

Within 20 minutes
your blood pressure and pulse rate decrease.¹

**STOP SMOKING.
START REPAIRING.**

Get FREE support to quit smoking. 1-888-354-PLAN or quitplan.com



1 - Surgeon General's Report, 2004, The Health Consequences of Smoking. Available at www.surgeongeneral.gov/library/reports/ 2 - American Cancer Society, 2010, Guide to Quitting Smoking website, available at www.cancer.org/healthy/stopwaysfromtobacco/guide/quitting/guide-to-quitting-smoking/benefits 3 - Centers for Disease Control and Prevention, 2003, Pathways to Freedom, p.30, Available at www.cdc.gov/tobacco/quit_smoking/how_to_quit/pathways/ 4 - Campaign for Tobacco Free Kids, available at www.tobaccofreekids.org/research/factsheets/pdf/0202.pdf





Beyond Individual Encounters

- Creating a total environment for nicotine reduction:
 - Clinic-based visits
 - Health system efforts
 - Community-based efforts
 - State-wide efforts (including the PAN)





CDC Resources

- Extensive resources available online:
 - Cessation Best Practices
 - Guidance on Cessation Insurance Coverage
 - Using Health Systems Change to Increase Tobacco Cessation
 - Guide to Academic Detailing
 - Guide to Meaningful Use
 - Protocol for Identifying and Treating Patients Who Use Tobacco





Nicotine Replacement Therapy



USPSTF Cessation Rating

“...the USPSTF recommends that clinicians ask all adults about tobacco use, advise them to stop using tobacco, and provide behavioral interventions and FDA-approved pharmacotherapy for cessation to adults who use tobacco (A Recommendation).”

- Both counseling **and** medications are recommended – combinations are most effective
- Consider what is best for each individual patient



E-cigarettes are NOT an approved cessation method

- E-cigarettes are a tobacco product and do contain nicotine and should be addressed when asking patients about tobacco use
- 2 RCTs from Italy and New Zealand with very small numbers of participants have found that e-cigs containing nicotine may have potential to increase chances of stopping smoking in the long term but more evidence is needed (Cochrane, 2016)

Nicotine Replacement Therapy

Nicotine Gum



Nicotine Patches



Microtabs



Lozenges



Inhalators



Nasal Sprays



Smoking Cessation Medications

- Treatment for nicotine addiction: Medications and counseling double your patients' success rate.
- The use of long and short acting NRT more than triples quitting success rates!
- Use the chart below to help determine which medications you should recommend and prescribe for each of your patients.
- Most insurance plans, including Medicaid and Medicare, cover some or all stop smoking medications.
- Medicaid requires a fiscal order for over the counter medications (certain nicotine replacement therapies).

	Nicotine Patch	Nicotine Gum (piece every hour)	Nicotine Lozenge (piece every 1-2 hours)	Nicotine Nasal Spray (in each nostril)	Nicotine Inhaler (10mg/cartridge)	(Bupropion) Zyban® (start 1 week before quit date)	(Varenicline) Chantix™ (start 1 week before quit date)
Dosage & Duration (Taken 2-3 months)	<ul style="list-style-type: none"> • 21mg, 14mg, 7mg. • Choice of 16 or 24-hour dosage. 	<ul style="list-style-type: none"> • 4mg – (25+ cigarettes /day). • 2mg – (under 25 cigarettes/day). • Max. 24 pieces a day for up to 12 weeks. • Not to be chewed like bubble gum. 	<ul style="list-style-type: none"> • 4mg – If tobacco is used within 30 minutes of waking. • 2mg – If tobacco is used after 30 minutes of waking. • Max. 20 lozenges a day for up to 12 weeks. 	<ul style="list-style-type: none"> • 1-2 doses per hour as prescribed. • Do not use more than 40 doses/day for 3-6 months. 	<ul style="list-style-type: none"> • Use 6-16 cartridges per day for up to 6 months. 	<ul style="list-style-type: none"> • Day 1-3: One 150mg tablet each morning. • Day 4+: One 150mg tablet each morning and evening. • Taken 3-6 months. 	<ul style="list-style-type: none"> • Day 1-3: 0.5mg tablet per day. • Day 4-7: 0.5mg tablet each morning and evening. • Day 8-28: 1mg tablet each morning and evening. • Taken 3-6 months (or longer depending on prescription).
Pros	<ul style="list-style-type: none"> • Easy to use. • No prescription needed. • Once a day administration. • Provides a continuous nicotine dose all day. 	<ul style="list-style-type: none"> • Easy to control dose. • No prescription needed. • Available in different flavors. 	<ul style="list-style-type: none"> • Easy to control dose. • No prescription needed. • Delivers 25% more nicotine than gum. • Easily dissolves in the mouth 	<ul style="list-style-type: none"> • Easy to adjust dose. • Gets nicotine into your system the fastest. 	<ul style="list-style-type: none"> • Easy to adjust dose. • Can puff on what looks like a plastic cigarette holder whenever urge to smoke occurs. 	<ul style="list-style-type: none"> • Easy to use. • Helps prevent relapses and weight gain. • With doctor approval, may be used with patch. 	<ul style="list-style-type: none"> • Easy to use. • Fools the brain to believe it already had nicotine. • Lessens the sense of satisfaction associated with smoking.
Cons	<ul style="list-style-type: none"> • Possible skin reaction or insomnia. • Nicotine released slowly; it doesn't instantly enter or leave your body. 	<ul style="list-style-type: none"> • May be hard to use with dentures. Can damage dental work. Can cause problems if directions are not followed. • No food or drink for 30 minutes before and during use. • Mouth soreness, jaw soreness or heartburn. 	<ul style="list-style-type: none"> • May cause hiccups or heartburn. • No food or drink for 30 minutes before or during use. • Can cause problems if directions are not followed. 	<ul style="list-style-type: none"> • May cause hiccups or heartburn. • No food or drink for 30 minutes before or during use. • Can cause problems if directions are not followed. • May cause nasal • Sneezing and coughing or teary eyes. • Need prescription to use than other forms of Nicotine Replacement Therapy (NRT). 	<ul style="list-style-type: none"> • May attract attention. • Need prescription. • May cause irritation of mouth and throat. 	<ul style="list-style-type: none"> • Might disrupt sleep, cause headaches or dry mouth. • Seizure risk in some users. • Need prescription. 	<ul style="list-style-type: none"> • Need prescription. • May cause nausea, insomnia, headache, abnormal dreams. • FDA boxed warning about adverse psychiatric effects. • FDA communication about potential risk for heart problems.

Source: New York State Department of Health.



Nicotine Replacement Therapy

- All forms make it more likely that quit effort will succeed
- Chances of stopping smoking increase 50-70% with use of NRT
- Available evidence shows no difference between different types of NRT and no benefit of using patches beyond 8 weeks
- NRT is effective with/without additional counselling, with/without prescription according to evidence



Other Medications



Other Medications



Varenicline (Chantix)

- Standard dose more than doubles chances of quitting
- Low-dose roughly doubles chances of quitting, reduces number and severity of side effects



Bupropion (Zyban)

- Combination of NRT and bupropion more effective than bupropion alone
- When comparing NRT and bupropion as separate treatments, no significant difference was found



Combination NRT



Best Practices

Use a combination of the nicotine patch and a faster acting form of NRT

OR

Use the nicotine patch in combination with bupropion

- In highly dependent smokers there is significant benefit to use of 4 mg gum vs. 2 mg gum











Best Practices

- Long-term (>14 weeks) nicotine patch (18-24 weeks in trials) + other NRT (gum, lozenge, spray) as needed for a minimum of 26 weeks (up to 52 weeks in trials). Use beyond 52 weeks should be reviewed on a case-by-case basis.
- Nicotine patch (10 weeks) + bupropion SR (12 weeks)
- Nicotine patch (10 weeks) + nicotine inhaler (12-26 weeks)

COMBINATION NICOTINE REPLACEMENT THERAPY (NRT)

RECOMMENDED STARTING DOSE

DAILY CIGARETTE CONSUMPTION

 10 OR MORE	 LESS THAN 10
 +  OR 	 +  OR 
*4MG LOZENGES OR GUM CAN BE CONSIDERED IN HIGHLY DEPENDENT PATIENTS	

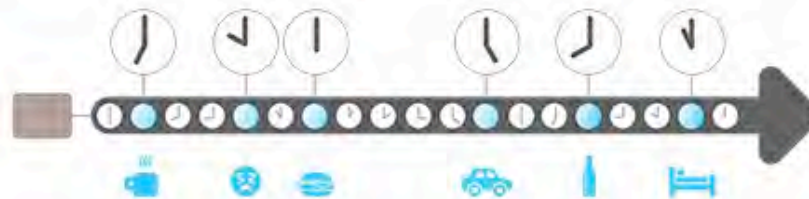
START ON TARGET QUIT DATE


NICOTINE PATCH
USE 1 PATCH EVERY 24 HOURS TO MAINTAIN BASAL NICOTINE LEVELS

+


SHORT ACTING NRT
6-10 LOZENGES OR PIECES OF GUM PER DAY
AS NEEDED FOR BREAKTHROUGH CRAVINGS

EXAMPLE COMBO NRT USE FOR ONE DAY



REDUCE DOSAGE OVER THE NEXT 2-6 MONTHS

EXAMPLE TAPER SCHEDULE

WEEK 1	21MG		WEEK 5	14MG	
WEEK 2	21MG		WEEK 6	14MG	
WEEK 3	21MG		WEEK 7	7MG	
WEEK 4	21MG		WEEK 8	7MG	

TAPERING MAY BE EXTENDED PAST 6 MONTHS, PARTICULARLY FOR PATIENTS WITH HIGH NICOTINE DEPENDENCE OR TROUBLE REDUCING DOSE OF NRT

PATIENTS HAVE A BETTER CHANCE OF QUITTING WHEN THEY COMBINE MEDICATION WITH BEHAVIORAL COUNSELING. THE VA QUITLINE OFFERS CONVENIENT TELEPHONE COUNSELING FOR PATIENTS AT 1-855-QUIT-VET/ 1-855-784-8838





Pharmacotherapy & Behavioral Support

- Using combination of medication and support increases success rates of quit attempts
 - This combination increases chance of success by 70-100% compared to just brief advice/support
- Use of nicotine gum & intensive long term support found to be very effective in the Lung Health Study



Insurance Coverage



QUITPLAN[®] Helpline

- 2-week supply of patches, gum or lozenges (2 enrollments allowed per year)
- Starting July 1, 2016, for those who receive patches through the Helpline:
 - 2 weeks of gum or lozenges can be added for those who would benefit from combination therapy



ACA and Preventive Services

- Required coverage for preventive services with no cost-sharing or prior authorization
 - Preventive Services receiving 'A' or 'B' rating from U.S. Preventive Services Task Force
 - Tobacco Cessation given 'A' rating
 - Includes all forms of counseling and FDA-approved cessation medications



Current Cessation Insurance Coverage in Minnesota

- Medical Assistance and MinnesotaCare
 - Free FDA-approved medications
 - Free in person, individual and group counseling
 - Phone counseling via health plan or QUITPLAN® Services
- State Employees
 - Free FDA-approved medications
 - Free individual, group and phone counseling
- Most Commercial Insurance – State Regulated
 - Free FDA-approved medications
 - Free individual, group and phone counseling
- Self-funded – Federally Regulated
 - Coverage varies



Creating A Nicotine Free Environment

- Need to have a broad view – helping individuals quit nicotine use will be aided by efforts within:
 - Clinics
 - Health systems
 - Communities
 - Statewide



Physician Advocacy Network



Tobacco Prevention

- As Pete mentioned earlier, the responsibility for tobacco prevention goes far beyond individual providers. There are many different determinants that lead an individual to try smoking and adopt the habit. Research shows though that the most productive and cost-effective ways to reduce tobacco are focused on environmental factors. If we keep prices high, restrict access and use, and limit advertising smoking rates will continue to go down.
- The PAN addresses the need to reinvigorate interest in tobacco issues among health professionals by looking beyond the clinic setting to stop the problem where it starts

We believe you can't start your focus on nicotine when patients have already been hooked for years

This work starts with identifying champions within your organization

We empower these champions to look at upstream solutions to the problem of tobacco dependence

By promoting advocacy in the greater community individuals become more motivated to promote effective treatment in their clinics

Physician Advocacy Network



www.panmn.org



Education

- Free webinars available at panmn.org
- E-cigarette and menthol trainings available for individual health systems

Patient Materials and Toolkits

What Are E-cigarettes? For Parents and Caregivers

E-cigarettes are battery-operated devices designed to deliver nicotine, flavorings and other chemicals to users. E-cigarettes work by heating liquid, creating a vapor that e-cigarette users inhale. The vapor contains nicotine and flavorings.

E-cigarettes may also be called e-cigs, vaporizers, vapes or e-hookahs. Using an e-cigarette is called vaping. The liquid that e-cigarettes heat is called e-liquid or e-juice. E-cigarettes are becoming more popular, especially among youth.

Because e-cigarettes were first sold in 2007, scientists do not yet know the long-term health effects of e-cigarettes. Though e-cigarettes may appear to be less dangerous than traditional cigarettes, e-cigarettes can still be addictive and harm your health.

E-cigarettes come in many shapes and sizes

E-cigarettes come in many shapes, sizes and colors. E-cigarettes create less of an odor than traditional cigarettes, which may make it harder to tell if someone is using them.



Photo credit: U.S. Food and Drug Administration

E-cigarette vapor contains cancer-causing chemicals

Many people believe that e-cigarette vapor is "just harmless water vapor." This is not true. E-cigarette vapor contains nicotine, heavy metals, formaldehyde and

Hookah

Hookah is a water pipe that is used to smoke tobacco. The tobacco used in hookah is known as shisha. Shisha is a sticky mixture of tobacco, molasses, and other flavorings such as apple, chocolate or mint. The tobacco is heated using coals. Hookah use began centuries ago in ancient Persia and India. There has been an increase in hookah use around the world lately, especially among youth and college students.

Hookah smoke contains nicotine

Hookah smoke contains nicotine, which is a highly addictive drug. Hookah smoking delivers about the same amount of nicotine as cigarette smoking. Teens and young adults are very vulnerable to nicotine addiction because their brains are still developing. Using nicotine as a teen can cause problems in learning, memory and attention.

Hookah smoke is toxic

Hookah smoke contains large amounts of toxic ingredients including tar, carbon monoxide, and cancer-causing chemicals. The charcoal used to heat tobacco in the hookah creates smoke that contains high levels of carbon monoxide. Hookah smokers may be at risk for the same diseases as cigarette smokers including:

- Heart disease
- Mouth cancer
- Lung cancer
- Stomach cancer
- Throat cancer
- Lung illness
- Reduced lung function



Shisha

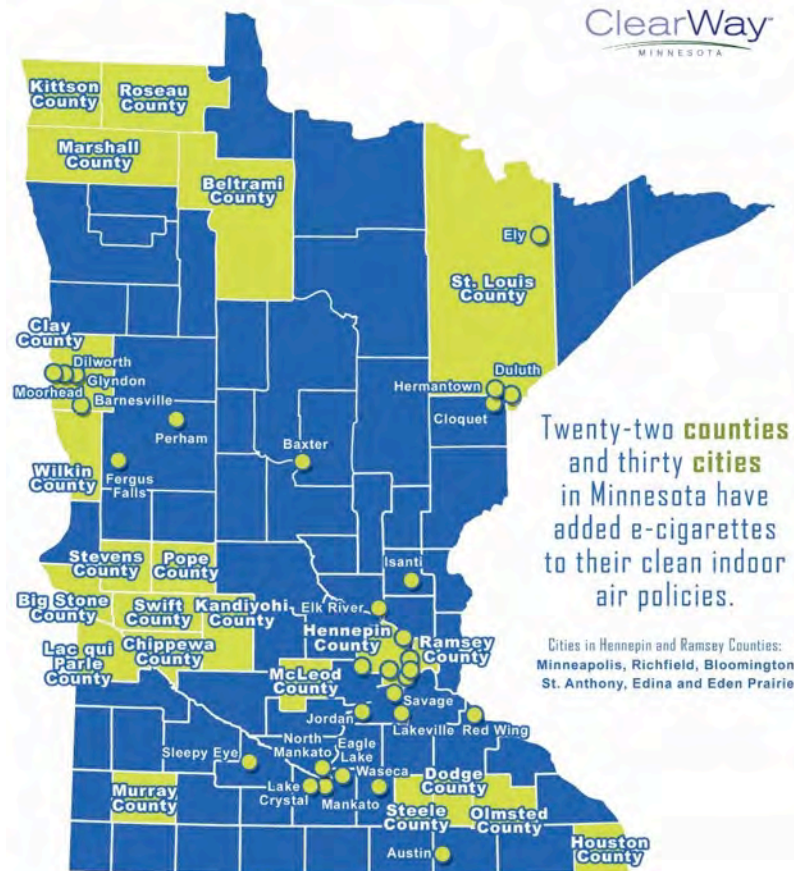


Advocacy

How can you get involved?

- Support our legislative priorities in the current session by signing a postcard (hand out to attendees)
- Write a letter to the editor. May have seen former president Dr. Carolyn McClain speak out against a vaping opinion piece in the Star Tribune in November last year
- Testify at a public hearing, speak to your city councilperson, submit a letter of support
- Raise awareness among physicians and other healthcare professionals in your practice about the risks of e-cigs and flavored tobacco such as menthol by supporting education like this workshop or sharing information such as our patient materials

Support Clean Indoor Air



Currently, **50%** of Minnesotans are covered by clean indoor air policies that include e-cigarettes.

Updated 11/16/2016

Regulate Menthols & Other Flavorings

**BEAUTIFUL LIE
UGLY TRUTH**
ABOUT **MENTHOL** TOBACCO

**ABOUT
MENTHOL**

Easier to start, harder to quit.

Tobacco companies add menthol to tobacco products to cool the throat and make them taste better.

The tobacco industry has marketed menthol cigarettes as healthier and safer, but they are just as deadly.

Many people choose menthol cigarettes because they believe they are safer than non-menthol cigarettes. They are not.



Keep Tobacco Prices High

47,700 Minnesota kids
will not become addicted
to tobacco products due
to Minnesota's 2013
tobacco tax increase



Physician Advocacy Network

A project of Twin Cities Medical Society

1300 Godward Street NE, Suite 2000

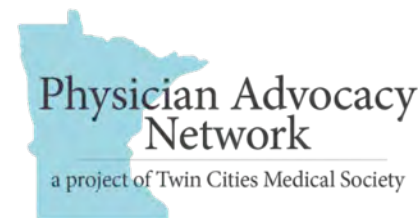
Minneapolis, MN 55413

612.362.3706

www.panmn.org

Grace Higgins

ghiggins@metrodoctors.com





Questions?



References

- 1.American Academy of Family Physicians (2017). Tobacco and Nicotine Addiction. Retrieved from <http://www.aafp.org/patient-care/public-health/tobacco-nicotine.html>
- 2.American Academy of Family Physicians (2015). Pharmacologic Product Guide. Retrieved from: http://www.aafp.org/dam/AAFP/documents/patient_care/tobacco/pharmacologic-guide.pdf.
- 3.Cahill et al (2016). Nicotine receptor partial agonists for smoking cessation
- 4.(Review). *Cochrane Database of Systematic Reviews*; 5.
- 5.Centers for Disease Control (2014). CDC National Health Report Highlights. Retrieved from: <https://www.cdc.gov/healthreport/publications/compendium.pdf>
- 6.Centers for Disease Control and Prevention (2014). 2014 Surgeon General's Report: The Health Consequences of Smoking—50 Years of Progress. Retrieved from https://www.cdc.gov/tobacco/data_statistics/sgr/50th-anniversary/index.htm.
- 7.Centers for Disease Control and Prevention (2017). Cessation Materials for State Tobacco Control Programs. Retrieved from https://www.cdc.gov/tobacco/quit_smoking/cessation/
- 8.Clearway Minnesota (2016). Help Your Patients Quit: Tobacco Cessation Changes and Resources in Minnesota. Retrieved from <https://static1.squarespace.com/static/5759add08a65e2dfe9ee213c/t/57a23df1d2b8572dc6cdb221/1470250496316/TCMS+Webinar+Aug+3+2016+FINAL.pdf>
- 9.New York State Department of Health. Smoking Cessation Medications. Retrieved from <https://talktoyourpatients.health.ny.gov/medication>
- 10.Stead et al (2012). Nicotine Replacement Therapy for Smoking Cessation (Review). *Cochrane Database of Systematic Reviews*; 11.
- 11.Stead et al (2016). Combined pharmacotherapy and behavioural interventions for smoking cessation (Review). *Cochrane Database of Systematic Reviews*; 3.
- 12.The Cancer Council. Influences on the Uptake and Prevention of Smoking. Retrieved from <http://www.tobaccoinaustralia.org.au/chapter-5-uptake>
- 13.Tobacco Free Life (2016). Nicotine Replacement Therapy. Retrieved from <https://tobaccofreelife.org/quit-smoking/quit-smoking-methods/nicotine-replacement-therapy/>
- 14.US Department of Veterans Affairs (2016). Combination Nicotine Replacement Therapy. Retrieved from <http://www.publichealth.va.gov/smoking/professionals/treatment/comboNRT-infographic.asp>
- 15.US Preventive Services Task Force (2015). Tobacco Smoking Cessation in Adults, Including Pregnant Women: Behavioral and Pharmacotherapy Interventions. Retrieved from <https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/tobacco-use-in-adults-and-pregnant-women-counseling-and-interventions1>