American Lung Association.

Telehealth as a Vehicle to Support Tobacco Cessation

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I. INTRODUCTION

Tobacco use is the leading cause of preventable disease, disability and death in the United States. Each year, nearly half a million Americans die prematurely of smoking or exposure to secondhand smoke and another 16 million live with a serious illness caused by smoking.[1] In 2017, 13.9 percent of Americans over the age of 18 smoked.[2] Recent data shows that in 2015, almost 70 percent of adults who smoke want to quit, but, fewer than one third of smokers who tried to quit used proven cessation treatments, and fewer than one in 10 smokers overall quit successfully in the past year.[3] It is important to find ways to reach smokers that want to quit but are not quitting successfully now.

This document explores, in depth, how telehealth may be used to improve access to evidence-based tobacco cessation services. Telehealth has potential to improve access to healthcare for various populations, including communities that lack providers and patients with limited time or mobility. However, there can be challenges to using telehealth effectively. This document highlights both the opportunities and challenges of telehealth as vehicle for provision of evidence-based tobacco cessation services.

Basic Definition and Use of Term Telehealth

Telehealth and *telemedicine* are often used interchangeably and generally refer to the use of electronic information and telecommunications technology to support long distance clinical healthcare and patient and professional health-related education and support. This includes social media and apps which connect consumers and providers, though often in a more informal and casual environment. (For more detail on the specific modalities see page 10) Because *telemedicine* is sometimes limited to long distance clinical services, in this material, we use the term *telehealth* to encompass both clinical and wellness-oriented services.

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II. GENERAL BENEFITS OF TELEHEALTH

As a technology that extends clinicians' services and reach, telehealth has the potential to expand access, reduce costs and improve the quality of care. Provider shortages in geographically underserved areas can be mitigated by accessing services via telehealth. Sub-specialist, behavioral health and other providers who are in short supply in many regions can serve a greater diversity of consumers using telehealth. In addition, access to peer providers and specialists can help counter the clinical isolation experienced by many rural providers.

Telehealth services provide more convenient access to care for individuals who either cannot travel to see a provider or who have limited time and might otherwise forego care. Telehealth offers a mechanism to provide better acute care follow up and a support for ongoing monitoring and adherence to chronic care management. In these examples, telehealth can promote improved quality of care as well as offset provider shortages and improve access.

Data on the cost savings of telehealth are conflicting. A RAND Corporation study released in 2017 found that when consumers use telehealth, their costs may actually increase.[4] Researchers estimated that 12 percent of direct-to-consumer telehealth visits substituted for visits to other providers, and 88 percent represented new utilization. Spending went up $45 annually per patient. By contrast, the Veterans Administration estimates average annual savings of $6,500 for each

patient that participated in the telehealth program in 2012, which equates to nearly $1 billion in system-wide savings.[5]

Specific to tobacco cessation, telehealth has the potential to provide another avenue for persons who use tobacco to access evidence-based cessation support. Although telephonic services are available throughout the U.S. via state quit lines, video connection may be more appealing to certain demographics and may offer a stronger sense of accountability and personalization. It should be noted that telephone-only services are generally not included in state definitions of telehealth. See Section III. "Tobacco Cessation Via Telehealth" for more detail. Because many telehealth vendors are able to link with electronic health records (EHR), telehealth may also offer a greater opportunity for electronic sharing of patient information and feedback to primary care physicians regarding cessation attempts. Client information generated by state quitlines has been difficult to integrate back into patient medical records.

Take Away: Telehealth has the potential to expand access, reduce costs and improve the quality of care.

III. Tobacco Cessation via Telehealth

Tobacco cessation services, regardless of the delivery mechanism, include three evidence-based counseling modalities and seven FDA-approved medications, as outlined in the Public Health Service Clinical Practice Guideline: Treating Tobacco Use and Dependence.[6] Counseling and medication are effective when used by themselves, but the combination of counseling and medication is more effective than either alone.[7] Notably, these evidence-based treatments are recommended by the United States Preventive Services Task Force for non-pregnant adults who smoke and are, thus, required to be covered by most health plans as preventive services.[8] Both counseling (except telephone counseling, discussed below) and pharmacotherapy can be, and are, delivered by telehealth and have diagnostic codes and reimbursement codes that support reimbursement.

Comprehensive Tobacco Cessation Benefit:

Seven Medications:

- Over-the-counter (OTC) Nicotine Replacement Therapies (NRT):
  - Gum, Patch, Lozenge
- NRT Inhaler, Nasal Spray
- Bupropion
- Varenicline (Chantix®)

Three Forms of Counseling:

- Individual, Group, Telephone

Tobacco cessation services have traditionally included a number of telecommunications technologies. Telephone counseling is an evidence-based delivery vehicle for tobacco cessation. The Text4Baby mobile health program and online options such as Smokefree.gov's quit plan, are also familiar to tobacco control professionals. Telephone, mhealth, and web-based platforms to support tobacco cessation all face barriers to being covered telehealth services.

Quitline

Quitlines are telephone counseling services that provide effective treatment for smokers who want to quit and increase quit-success by providing varying levels counseling and sometimes pharmacotherapy. Quitlines are available in every state through a combination of state and federal funding (federal funding through the Centers for Disease Control and Prevention (CDC)). However, as noted previously, telehealth does not allow for telephone services that do not include a video component (see Section V. "Barriers to Telehealth"). The most common restriction states place on the term telemedicine/telehealth is the exclusion of phone, email, and/or fax from the definition.[9] Many state telehealth definitions and laws specifically exclude telephone-only or fax interactions which would mean quitlines would be excluded unless they included a video component. Note that this does not mean quitlines are not a covered tobacco cessation service – simply that they would not be reimbursed under the umbrella of telehealth.

Mobile Health Tobacco Cessation Programs

Mobile health (mhealth) applications can range from targeted text messages that promote healthy behavior to the National Cancer Institute's quitstart app. Text4Baby or smokefreetxt are also examples of mhealth supported by the federal government. In addition, there are numerous independent cessation apps and texting programs.

A recent report concluded that more than one third of all smokers turn to the internet for help quitting each year, representing more than 12 million U.S. adults.[10] This can include simply searching online for information (not considered telehealth) to downloading and using mhealth apps or signing on to a provider or health plan portal for cessation support. Several cessation-specific mhealth programs have accumulated evidence of effectiveness in recent years. Mhealth interventions can provide effective services and interventions (e.g. Individual or group counseling) yet there is no guarantee of payment.

Given the potential for reach and the quickly accumulating science, mhealth programs could lead to a shift toward coverage and reimbursement of mhealth like other telehealth modalities. The CDC is tracking the evidence on many of these programs by U.S. Region but at the current time they are generally not eligible for reimbursement.

Take Away: Evidence-based tobacco services can be provided via telehealth. However, reimbursement via telehealth typically excludes telephone-only counseling and mHealth applications.

IV. Current Utilization and Adoption Rates

Utilization of telehealth is currently very limited despite its potential. Two factors are important in assessing the penetration of telehealth. One is the number of providers and facilities that have implemented a telehealth capability to serve patients. The second is the percent of the eligible population that have actually used a telehealth service.

In a 2017 U.S. Telemedicine Industry Benchmark survey, adoption rates among providers varied by care setting and provider type[11]:

- Acute care hospitals - 63 percent
- Outpatient facilities - 45 percent
- Primary care - 30 percent
- Emergency departments - 22 percent
- Skilled nursing facilities - 10 percent

The top specialty applications are stroke, psychiatry/behavioral health, neurology, radiology and pediatrics. Industry experts expect stroke, mental health and primary care to remain top uses for telehealth.[12] Data is not available regarding the volume of telehealth utilization for tobacco cessation.

The rates of individual patient adoption are not available on a population-wide basis but have been identified for certain specific populations (see Table One) such as Medicare enrollees and veterans. Projections for the share of telehealth visits from the IQVIA Institute for Human Data Science[a] range from a high scenario of 7.5 percent of projected provider visits in 2022 to a low scenario of 4.2 percent of projected provider visits.[13]

Table One

	Medicare Fee for Service (FFS) [14]	Medicaid	Dept of Defense (DOD)[15]	Veterans Affairs (VA)[16]
Services	Medicare covers services (including tobacco cessation) on the Centers for Medicare & Medicaid Services' (CMS's) list of telehealth services as of 2017. [17]	CMS has no statutory or regulatory requirements for telehealth. Each state establishes services.	DOD does not limit the services allowed for telehealth use (including tobacco cessation).	VA does not limit the services providers can offer via telehealth (including tobacco cessation).
Originating Sites	Sites must be in a rural health professional shortage area or a county that is not in a Metropolitan Statistical Area (MSA). Services must be delivered in provider offices or facilities.	CMS does not limit telehealth use. State restrictions vary.	Telehealth is not limited to certain geographic areas. Originating sites are those deemed appropriate by the DOD provider, including home.	VA does not limit the locations where telehealth services may be provided.

[a] IQVIA is the entity formed by the merger of Quintiles and IMS Health. The Institute for Human Data Science uses machine learning and predictive analytics, research, and scientific subject matter expertise applied to health industry and pharmaceutical non-identified patient level data to inform research and operational decision-making tied to improved human outcomes. The Institute works in tandem with a broad set of healthcare stakeholders to drive a research agenda focused on Human Data Science, including government agencies, academic institutions, the life sciences industry and payers

	Note: Medicare has waived some of these restrictions in innovation models.			
Utilization	0.2 percent (FY 2014)	Varies by state	1 percent (FY 2016)	12 percent (FY 2016)
Break-outs by specialty, region	• 66 percent evaluation and management • 19 percent behavioral health (BH)	• States report more rural than urban	• 80 percent BH, dermatology, cardiology, pediatric	• 45 percent rural with limited access to VA • Mental illness and PTSD top health issue

Take Away: Utilization of telehealth services remains very low except in organizations (healthcare systems or health plans) that have actively promoted its value. Tobacco cessation services are covered as a telehealth service by the federal and state payers that permit use of telehealth.

V. BARRIERS TO TELEHEALTH

A number of barriers exist to greater telehealth utilization, including lack of awareness, individual resistance, program costs and reimbursement and access to broadband internet. Many of these vary between patients and providers. Legal and regulatory barriers are discussed in Section VI. "Federal Legislation and Regulation."

Patient Barriers

The biggest patient barrier is awareness. Two-thirds of the people interviewed in a set of surveys commissioned by Avizia for its annual *Closing the Telehealth Gap Report*[18] did not know whether telehealth was covered by their insurance. Only one in five could definitively say it was covered. When posed with a hypothetical opportunity to use telehealth, 46 percent said they would find a video visit less comfortable while 54 percent said it would be at least as, or more comfortable than an in-person office visit.[19]

Assuming telehealth is an option, 72 percent of respondents indicated they would be motivated to use telehealth due to no available appointments/inability to get to provider's office due to schedule conflicts or travel time involved. Transportation issues were cited as a motivator by 59 percent of respondents. Only 7 percent of patients said they did not use telehealth because of cost.

Although the data is limited, there is evidence to suggestion patient costs are lower for telehealth visits than usual office-based care. One study using data from five telehealth service vendors found that In the commercial market, the average estimated patient cost of a telehealth visit is $40 to $50, compared to the average estimated cost of $136 to $176 for in-person acute care. Patient issues are resolved during the initial telehealth visit an average of 83 percent of the time.[20]

Provider Barriers

As noted in Table Two, a set of surveys commissioned by Avizia for its annual *Closing the Telehealth Gap Report* in 2016 and 2017[21] reflects physicians' perception of the barriers to adoption of telehealth. All areas show an improvement in physician attitudes and expectations between 2016 and 2017.

Table Two

	Reimbursement	Program Costs	Provider Resistance	Patient Resistance
2016	48 percent	50 percent	25 percent	15 percent
2017	41 percent	40 percent	22 percent	11 percent

Avizia: Closing the Telehealth Gap, 2017

Information Technology Infrastructure

Telehealth requires robust reliable broadband service. Video conferencing, real-time data transfers, electronic health records (EHR) and cloud-based health applications all require high-speed, high-quality connections. Disruptions in transmission due to slow bandwidth speeds can have serious medical consequences for services such as tele-ICU but can also be a barrier to effective telecounseling for services such as tobacco cessation. In the past the Federal Communications Commission (FCC) set the standard of 25 Mbps download/3 Mbps upload as the minimum necessary requirement for broadband speed to support telehealth. These standards were removed in 2018 but not replaced with any other standard. As such telehealth experts still use this as a guideline. Rural areas lag in their ability to meet this standard. In 2016, the Federal Communications Commission (FCC) found 39 percent of rural Americans—23 million people— lacked access to this broadband speed.[22] While these are minimum standards, other factors influence needed bandwidth, including the number of users, the nature of the transaction, hardware and interfaces with other medical software such as electronic health records. While not a formal standard, many in the industry believe universal access to fifth-generation mobile networks (5G) could solve the broadband problem and improve access for rural Americans.[23]

The FCC's Connect2Health[FCC] Task Force has developed a mapping platform *Mapping Broadband Health in America 2017* that allows users to visualize, overlay and analyze broadband and health data at the national, state and county levels.[24] The maps are interactive and illustrate various aspects of the intersection between connectivity and health. Users can generate customized maps that show broadband access, adoption and speed alongside various health measures (e.g., obesity, diabetes and physician access) in urban and rural areas. Although tobacco use is not one of the current health indicators that can be selected, tobacco professionals could use proxies such as median household income or education level to gain helpful insight into potential target populations.

Security

Potential utilizers of telehealth may have concerns around privacy and security issues. The Health Insurance Portability and Accountability Act (HIPAA) is the law that establishes privacy standards to protect individually identifiable health information used by health plans, healthcare providers, and healthcare clearinghouses (e.g. Billing clearinghouses). It also sets national standards for protecting the confidentiality, integrity, and availability of electronic protected health information (PHI)[25]. HIPAA does not have specific telehealth requirements, meaning providers must meet the same standards as they do for in-person care. However, individual states may set a higher bar for compliance with privacy and security rules. Telehealth vendors typically include information regarding compliance, but the range of technology used by both providers and patients can vary tremendously.

Economic Impact
Data on the financial impacts of telehealth are conflicting. A RAND Corporation study[26] released in 2017 found that when consumers use telehealth, their costs may actually increase. Researchers estimated that 12 percent of direct-to-consumer telehealth visits substituted for visits to other providers, and 88 percent represented new utilization. Spending went up $45 annually per patient. By contrast, the Veterans Administration estimates average annual savings of $6,500 for each patient that participated in the telehealth program in 2012, which equates to nearly $1 billion in system-wide savings[27].

The economic impact will vary based on the goal of a telehealth intervention. If it is to promote access to services otherwise unavailable, increased utilization would be a positive outcome.

Reimbursement
A fundamental barrier to payment for any new service is the availability of procedure and service codes accepted by payers. Fortunately, there is not a need for substantial new codes for telehealth services. In general, the same diagnostic and procedural codes can be used to describe services provided via telehealth or in-person. However, payers often require an additional modifier code be added to indicate that the service was provided via telehealth. These modifiers are subject to change, so verification with Medicare, Medicaid, and the commercial payers is advised.

Subject to the limitations identified in Table One, Medicare will reimburse for the specific services its covers and has created a new Place of Service code (POS 02) for telehealth services. Medicare also pays the originating site a facility fee. Medicare reimburses at the current fee schedule rate for comparable in-person services. There are many resources available that explain coding requirements for tobacco cessation, but the CMS website or the American Lung Association's *Billing Guide for Tobacco Screening and Cessation* are a good place to start.[28,29]

In general, Medicaid reimburses for telehealth services at the same rate as in-person services. In states with parity laws for commercial carriers, this is also true for private insurers – assuming the parity law covers reimbursement as well as services. For questions regarding a specific insurer, Medicaid program, or service provided, it is best to ask the payer in question.

An additional component of telehealth reimbursement is coverage of specific modalities. Telehealth encompasses four distinct domains or modalities of applications:

- Live Videoconferencing (Synchronous): Live two-way interaction between a person and a clinician using audiovisual telecommunications technology
- Store-and-Forward (Asynchronous): Transmission of recorded health information or images to a clinician for evaluation or services outside of a real-time or live interaction
- Remote Patient Monitoring (RPM): Digital transmission of health data from an individual in one location to clinicians in a different location for use in care and related support
- Mobile Health (mhealth): Healthcare and public health practice and education supported by mobile communications devices such as cell phones, tablet computers and pdas; does not necessarily include a clinician

Live videoconferencing is the most widely reimbursed by Medicare and Medicaid and enables a tobacco user to have virtual face-to-face contact with cessation support. However, a barrier that may be unique to tobacco cessation counseling via telehealth is the broad range of clinician (physician, nurse, pharmacist) and non-clinician (counselor, Tobacco Treatment Specialist)

providers with evidence-based success helping users to quit. The list of providers that typically receive reimbursement for telehealth in general is much narrower.

RPM and ***Asynchronous*** telehealth are less frequently covered. While direct counseling and pharmacotherapy are not impacted by RPM or Asynchronous telehealth, both could be useful for monitoring and support of patients attempting to quit.

Mobile health is an emerging area. Mobile apps and texting applications supporting wellness and consumer engagement including tobacco cessation are proliferating (see Section III. "Tobacco Cessation Via Telehealth"). However, mhealth is the least consistently reimbursed modality for telehealth. Though it can be a vehicle for providing covered services and interventions, payers (e.g. Medicaid, Medicare, or commercial or other payers) make their own independent decisions about which mhealth services to pay for.

Telephone-only services such as tobacco Quitlines are typically NOT considered a reimbursable telehealth modality.

Take Away: Barriers to telehealth are typical of new technology services in both healthcare and other industries – lack of awareness, technological gaps, and inconsistent interpretation of services and payment. However, there is little to no organized resistance to telehealth and no insurmountable barriers, so expectations for continued growth are reasonable.

VI. COMMERCIAL PLAYERS

Health Plans

Large insurance carriers often cover telehealth services. Carriers operating in any of the states with parity legislation must cover telehealth in compliance with state requirements. However, public data is not available to indicate how it is reimbursed in terms of payment to providers or member cost-sharing. As noted earlier, it is best to ask the payer for clarification. A few questions to consider include:

- Which CPT (billing) and HCPCS (diagnostic) codes can be completed via telehealth?
- Are there any restrictions on the location of the patient or provider?
- Is a modifier (GT) needed for billing?
- Does the reimbursement rate match the in-person rate?
- Which providers are eligible (physician, Nurse Practitioner, Physician's Assistant)?
- Are there any specific notes that need to be included in the visit documentation?

Telehealth Vendors

There are many vendors providing telehealth services and multiple business models. Some offer their services direct to the consumer, entirely bypassing the health insurance payer. Others provide 24-7 on-demand providers that can integrate with an existing health system. There are also vendors that have developed ready-made back-end engines and rules platforms that can be implemented by a system that wants to use its own providers and coverage rules. Finally, there are full service vendors that provide a website, call center, mobile applications, an ability to use vendor providers and/or client providers and offer a full spectrum of services.

Evaluating any of these vendors and their role in expanding the range of services and the use of those services requires understanding who their client is (e.g. Health payer, provider or patient) and how they define success.

- A health plan may seek a solution to provide access to an *additional* network of physicians. The goal may be to expand access to primary care as a way to reduce costs, reduce emergency department (ED) visits and readmissions, increase customer satisfaction, and/or to help meet network adequacy requirements.
- A health system may provide a solution to expand access into outlying areas, share specialists across a region, drive patient loyalty, reduce readmissions or achieve quality standards established by health plans or payers (reduced readmissions, etc.).
- Individual providers may purchase a telehealth system to gain efficiencies in serving patients, though this is less prevalent than health plan or health system purchasers.
- Individuals may use a direct-to-consumer vendor, bypassing the insurance system altogether. These can be accessed online or through freestanding kiosks in independent locations and are used to address common issues perhaps more efficiently than going through the health insurers. These are attractive with the growth of high deductible health insurance plans.

These telehealth solutions may include:

- Using an *existing* network of physicians but leveraging their services more efficiently, much like email consults
- Using an entirely *new* network of physicians dedicated to the telehealth vendor
- A mix of both network options

Often these models don't clearly address who is responsible for driving consumer engagement. The lack of clarity regarding whether the health system or the vendor should promote the services to its members may be contributing to the lack of awareness and up-take. Vendors that might be useful allies in promoting tobacco cessation should have a role in educating and promoting telehealth services to providers, as well as an understanding of techniques to drive utilization. This might rule out vendors that provide primarily back-end systems.

Take Away:

- For a variety of reasons, including meeting legal parity requirements, market demand or anticipation of cost-savings, commercial health plans are covering telehealth services. However, the extent of services covered, and the nature of reimbursement varies from plan to plan and state to state.
- This is largely a vendor-driven market, with a variety of models for supporting, implementing, and/or delivering telehealth services.

VII. FEDERAL REGULATION

For the most part, telehealth is regulated at the state level. However, the Federal Communications Commission (FCC), the Federal Drug Administration (FDA), and the Federal Trade Commission (FTC) all have some regulatory oversight.

Federal Communications Commission

Devices that use electromagnetic spectrum or broadcast devices are regulated by the FCC as communications devices. Thus, much of the equipment used to support telehealth is regulated by the FCC.

Food and Drug Administration

The FDA's focus is on safety and effectiveness. As such, the FDA's Center for Devices and Radiologic Health regulates medical devices and the software used in telehealth systems. The FDA has telegraphed a lenient attitude toward regulating mobile devices. The FCC and FDA have worked collaboratively to create dedicated electromagnetic spectrums for medical devices and to build broadband capacity in the U.S.[30]

Federal Trade Commission

The Federal Trade Commission (FTC) is concerned about special standards for telehealth providers and supports minimal additional standards for telehealth provider. It has frequently commented on state legislation in support of measures that expand the supply of providers and promote competition.[31]

- The FTC has jurisdiction for health data breaches when the entities involved are not HIPAA-covered entities. For example, web-based businesses that collect people's health information and online services used by people to track their health information are not necessarily covered by HIPAA (see Section V: Barriers to Telehealth).
- The FTC has also penalized companies for making false claims about the effectiveness of their devices or apps.

Other

Other issues with respect to federal regulation include:

- Controlled substances may not be dispensed using telemedicine except under certain circumstances
- There is no federal requirement for informed consent
- The federal government stipulates that care is provided where the patient is located, not where the provider is located. This means the provider needs to be licensed or have reciprocity in the state where the care is provided.

There have been multiple pieces of legislation introduced by the Unites States Congress regarding telehealth, but with the exception of Medicare benefits and reimbursement, legislative action has thus far been at the state level.

In spring of 2018, "The Creating High-Quality Results and Outcomes Necessary to Improve Chronic Care Act of 2017" was passed; this law provides a vehicle to increase Medicare spending in telehealth. It allows coverage of expanded services for chronically ill patients. For example, Medicare patients with end stage renal disease may receive home dialysis via telehealth and Medicare patients receiving care for strokes may be treated via telehealth. The legislation permits

Medicare Advantage plans to provide additional telehealth benefits and permits Accountable Care Organizations (acos) to further use telemedicine. The new law requires the Secretary of Health and Human Services to solicit feedback on what services should be treated as telehealth benefits and promulgate new regulation on how the services will be provided.[32]

Take Away: At the current time, major federal-level barriers to success for providing tobacco cessation services via telehealth are the same as the barriers in traditional health settings: coverage of cessation services, engagement by providers and utilization by individuals who use tobacco.

State level barriers are more predominant and are addressed in Section VIII.

VIII. STATE REGULATION

Except for Medicare and the other national public-sector coverage displayed in Table One, the states are the hub of activity and barriers with respect to coverage and adoption of telehealth. The practice of medicine, including licensure and scope of practice; Medicaid coverage and payment policies; and insurance, including plan oversight, network adequacy and consumer protection, are all legislated and regulated at the state level. Thus, the need to address barriers and access to care are also typically addressed at the state level. Coupled with the relative lack of barriers identified at the federal level, this makes state-level analysis critical for any effort to consider opportunities for telehealth to support tobacco cessation. Recent legislative sessions have seen multiple proposals and calls for regulation or oversight of telehealth, leading to rapidly evolving state climates for telehealth.

The American Telemedicine Association (ATA), the Center for Connected Health Policy (CCHP) and the Federation of State Medical Boards (FSMB) have done extensive work tracking and compiling information on state laws and state Medicaid regulations that impact telehealth. These resources include several robust sets of indicators against which state telemedicine policies are evaluated and graded and are intended as reference tools to inform future policy decision making. The results are based on information collected from state statutes, regulations, medical board statements and other federal and state policy resources. Importantly, they are updated regularly.

Tobacco control professionals interested in assessing their state environments can use these resources to identify both barriers and assets supporting the advancement of telehealth. Because tobacco cessation is an intervention of particular interest and the sets of indicators are extensive, a set of indicators was curated that apply specifically to tobacco cessation counseling and pharmacotherapy via telehealth. Further detail on the definitions, as well as the recommended policy supported by CCHP, ATA or FSMB can be found in Appendix One. Table Three, below, summarizes the set of state level tobacco cessation-relevant telehealth indicators.

Table Three

Category	Indicators
Physician/Clinical Practice Standards	• Defining provider-patient relationship • Eligible technologies

	• Patient setting
Licensure	• Eligible providers (scope of practice) • Provider licensure • Internet prescribing
Network/Access	• Distance and geographic limitations
Parity	• Private health plan parity • Medicaid parity or specific requirements

Tobacco Cessation Indicator Analysis
The set of tobacco-relevant indicators selected provides a framework for assessing opportunities related to telehealth and tobacco cessation. Using the resources developed by ATA, CCHP, FSMB and others, public health professionals can track the status of the tobacco-relevant indicators in their state and produce an analysis to identify obstacles which need to be overcome or opportunities that can be leveraged to support tobacco cessation.

Take Away: States are the hub of efforts to support and promote telehealth. Understanding areas of opportunity and barriers can be facilitated by using a set of nine proposed indicators relevant to tobacco and accessing expert resources supported by ATA, CCHP and others.

IX. Targeting Populations for Tobacco Cessation via Telehealth

Taking the preceding information into account, there is potential to use telehealth to expand access to evidence-based tobacco cessation treatment. ***The first step is to start with the specific needs of the persons who use tobacco or the providers who deliver cessation services and match a solution to their circumstances***.

There are many factors to consider in prioritizing different populations who use tobacco or providers who deliver tobacco cessation services. At the current time, there is limited evidence or data specific to the applicability of telehealth to different segments of the population who uses tobacco. However, information regarding telehealth applications and current tobacco use patterns suggest, some populations may have higher potential for driving an increase in quit attempts supported by evidence-based therapies. This is not intended to imply that other populations should not be considered.

Areas which may have the highest potential for driving an increase in quit attempts through use of telehealth include:

- *Poverty*: Impoverished geographic areas and impoverished persons who use tobacco
- *Behavioral Health*: Providers and persons who use tobacco
- *Rural:* Providers and persons who use tobacco
- Primary care providers
- *Venues with promise for promoting access and awareness of telehealth for tobacco cessation*: Pharmacies and libraries, along with traditional social service venues such as Women Infant and Children (WIC) clinics

Poverty

In the U.S., people living below the poverty level have a higher rate of cigarette smoking (25.3 percent) than those at or above the poverty level (14.3 percent)[33]. Geographic areas with high concentrations of people living in poverty often lack infrastructure to support tobacco cessation, particularly with respect to social determinants of health. For example, low-income adults are more likely to be uninsured and live in public housing. Racial and ethnic minorities and people with behavioral health conditions live in public housing at higher rates than the general population.[34]

Telehealth can provide a way to address some of the challenges faced in serving populations living in poverty, including:

- Transportation challenges
- Nontraditional work schedules that make office visits difficult
- Site-based flexibility – public housing, community gathering centers, social service programs
- Cultural and linguistic barriers

Challenges to using telehealth to serve this population include many of the same challenges for other tobacco cessation efforts (e.g., driving awareness, community norms), but must also address potential modality limitations. Limited broadband connectivity, community technological infrastructure, and even access to data and cell phone minutes are critical to adoption of telehealth.

Behavioral Health

Nationally, nearly one in five adults have a mental health condition and in data from 2009 – 2011, 36 percent of these people smoke cigarettes.[35] In comparison, 21 percent of adults without a mental health condition smoke cigarettes.[36]

Behavioral healthcare lends itself particularly well to remote delivery, because the provider usually doesn't typically need to physically touch the patient to do an examination or provide treatment. Tobacco cessation services can be provided as a component of care for individuals already receiving telebehavioral care; inclusion of cessation services also provides an opportunity to address the interaction between tobacco and many behavioral health medications. Overcoming provider resistance or lack of awareness regarding telehealth as a care modality is less of an issue with behavioral health providers than many other providers because mental health services in 2016 accounted for 31 percent of the telehealth claims distribution (acute respiratory infections were second highest at 15 percent).[37]

Other benefits telehealth may provide for this population may include:

- Ability to provide services in nontraditional locations, such as public housing
- Traditional office hours may not be not applicable
- Ability to provide visual cues – a limitation of phone-based counseling
- Ability to increase services to the underserved youth population with behavioral health conditions as a result of the pervasiveness of daily technology use among youth[38]

Providers face some challenges to using telehealth for tobacco cessation among the behavioral health population. Counseling for tobacco cessation is often provided by non-behavioral health or non-clinician providers (e.g. Tobacco Treatment Specialists). For states that limit reimbursement to providers specifically identified in enabling legislation or regulation, this may be a challenge. In addition, telecounselors trained to serve patients without behavioral health conditions who use tobacco may encounter more complex factors when addressing patients with behavioral health conditions who use tobacco. Although technology acquisition is relatively inexpensive for telebehavioral health, many behavioral health providers have limited contractual relationships with insurance carriers, do not use electronic health records (ehrs) and prioritize direct payments from consumers.[39]

Rural Areas

Rural Americans face numerous health disparities compared with their urban counterparts; compared with urban American populations, rural Americans are more likely to die from heart disease, cancer, chronic lower respiratory disease and stroke, all of which are associated with tobacco use.[40] By county population types, prevalence of cigarette smoking among U.S. adults is highest among those living in rural areas (28.5%).[41] Both the Centers for Disease Control and Prevention (CDC) and the Centers for Medicare and Medicaid Services (CMS) have prioritized improving rural healthcare. CMS recently released a Rural Health Strategy which identifies and prioritizes rural healthcare issues including "Advancing Telehealth and Telemedicine."[42]

Using telehealth to offer evidence-based tobacco cessation treatment in rural areas should leverage existing systems like government or community-based services, employers, mobile health clinics and community screenings. This limits the need for infrastructure investment. Pioneering work is being done to use access to television (cable or satellite TV) as a means for bringing telehealth into homes.[43]

Project ECHO (Extension for Community Healthcare Outcomes): Tobacco Education and Cessation In the Health System (TEACH) is one of the few tested uses of telehealth for tobacco cessation support. Although it focuses on training providers to deliver tobacco cessation services rather than using telehealth to provide services to patients, it is an important validation of the variety of ways in which telehealth can be used to promote cessation.

Telehealth provides a mechanism to support overtaxed rural providers and address social isolation which is often a barrier to care.[44] Because programs can be developed for broad deployment across multiple rural areas, telehealth provides an opportunity to customize services for unique populations (e.g. Persons who use smokeless tobacco).

Rural areas suffer disproportionately from a lack of broadband capacity,[45] which is a requirement for telehealth. Another type of capacity challenge for integration of telehealth and tobacco cessation in rural areas can be the lack of local champions to spearhead launch of a new service. In small communities, the pool of community innovators is naturally smaller, and many are already overextended.

Primary Care Providers

In its *Treating Tobacco Dependence Practice Manual: A Systems-Change Approach,* the American Academy of Family Practice (AAFP) writes that, "Primary care practices are transforming from condition- and treatment-centered practices to patient-centered medical homes

(pcmhs) and other emerging enhanced quality improvement models."[46] Telehealth fits well with team- and value-based models of care and serves as a clinical extender.

Telehealth challenges for primary care providers include the need for training to incorporate telehealth and delivery of tobacco cessation services into the practice work flow. This has also been a barrier for office-based cessation services. Not all telehealth vendors automatically integrate service delivery information into ehrs or patient registries. This is particularly important for pcmhs and other alternative care models who often have quality documentation requirements tied to payment. Finally, as noted elsewhere, tobacco cessation is often provided by non-clinicians, which may require scope of practice modifications to ensure reimbursement.

Target Venues

Venues with promise for promoting access and awareness of telehealth for tobacco cessation include public libraries and pharmacies.

Libraries may be important community locations in rural and impoverished areas and can be the most reliable source of internet for persons who live in poverty. They are also particularly accessible for youth and seniors.

Pharmacies can provide additional access points for both awareness of telehealth to treat tobacco use and actual provision of services. Currently 90 percent of Americans live within 2 miles of a pharmacy.[47] Pharmacies are especially important in their ability to dispense pharmacotherapy to supplement counseling that may happen via telehealth and pharmacists may offer advice about tobacco or cessation pharmacotherapy interaction with other medications. They often have semi-private areas for services such as immunizations and are accustomed to working with a variety of insurers and payers. Several pharmacies already serve as venues for telehealth, including providing medical device-equipped, self-service telehealth kiosks.

Take Away:

- Although there is still limited evidence or data on the use of telehealth for tobacco cessation with specific target populations, there is promise based on current use of telehealth in general and more specific knowledge of populations who use tobacco.
- With that in mind, the first step is to start with the specific needs of persons who use tobacco or providers who deliver cessation services and match a solution to their circumstances.

X. IMPORTANCE OF MEDICAID

Forty-nine states and the District of Columbia have some sort of reimbursement for telehealth included in Medicaid fee-for-service programs. Even more are including specifications for

telehealth in their managed care programs, including use of telehealth to address provider access issues in rural areas or for specialties like behavioral health. In addition, the target populations described above represent important topics to state Medicaid programs – they care deeply about the care of and outcomes associated with rural residents, inner cities and individuals with behavioral health conditions. Relationships with primary care providers and behavioral health providers can be key to meeting quality of care goals. All of these factors make state Medicaid agencies important partners in addressing tobacco cessation through telehealth.

Medicaid Managed Care Organizations (mcos) can be important innovators relative to telehealth services. As of March 2018, 39 states have Medicaid contracts with mcos.[48] State Medicaid departments and their contracted mcos may exercise latitude beyond their Medicaid fee-for-service requirements and ask for telehealth to address rural, provider shortage or disability issues. Several plans include telehealth services in their network management, care management and quality management programs beyond what the state Medicaid agency requires.

XI. CONCLUSION

As telehealth continues to expand its reach in providing services to Americans, there is an opportunity to leverage it to support increased access to tobacco cessation services. Telehealth has the potential to improve access in communities that have a lack of providers, for patients with limited mobility, and for individuals who wish to minimize the time spent receiving care. It also provides an additional choice of delivery vehicle for individuals needing care. All these benefits apply to individuals needing access to tobacco cessation services and the data indicate that tobacco cessation is typically included as a covered telehealth service.

Despite the opportunity, there are still many challenges to using telehealth effectively. And telehealth may not be the best option for delivery of tobacco cessation services for all patients.

While there is limited data on the use of telehealth for tobacco cessation among specific target populations, areas which have potential for driving increased quit attempts supported by evidence-based therapies include:

- Poverty: Impoverished geographic areas and impoverished persons who use tobacco
- Behavioral Health: Providers and persons who use tobacco
- Rural: Providers and persons who use tobacco
- Primary care providers
- Venues with promise for promoting access and awareness of telehealth for tobacco cessation: Pharmacies and libraries

These populations have several features in common that make telehealth an option for expanding access to cessation services. They include some of the highest number of persons who use tobacco. Persons living in poverty[49] or rural areas[50] and persons with behavioral health conditions have disproportionately high prevalence of tobacco use. Some longstanding challenges with these populations can be addressed using telehealth, including transportation challenges, nontraditional work schedules that make office visits difficult, cultural and linguistic

barriers, the ability to provide services in nontraditional locations, a more familiar channel for younger digital native populations, and the ability to customize services for unique populations.

These populations are also relevant to Medicaid, whose members include rural residents, inner cities and individuals with behavioral health conditions. Finally, relationships with primary care providers and behavioral health providers can be key to meeting quality of care goals shared by public and private programs. While other populations who use tobacco may also be viable candidates for tobacco cessation via telehealth, the ability to address several barriers to cessation make these populations attractive targets for using telehealth as a means to promote tobacco cessation.

Telehealth has the potential to be extend clinical services beyond the walls of a health clinic or doctor's office. For certain populations, this provides an opportunity to improve access to tobacco cessation treatment. While telehealth might not be the best option for all patients, it does show promise as a vehicle to increase access to evidence-based treatment for individuals who use tobacco.

Steps for Approaching Telehealth:

1. Identify your target population who uses tobacco or providers who deliver cessation services and any unique needs with respect to cessation.
2. Identify barriers to cessation, including barriers to receiving/delivering services experienced by your target population.
3. Determine if telehealth can address those barriers.
4. Research your state's performance on key indicators for telehealth.
5. Determine if any of the gaps in indicators are critical to success with your target.
6. Find out if others in your state are working on telehealth initiatives (focus on other state agencies).
7. Weigh steps 3 - 6 and decide whether to move forward.
8. If yes, identify work-arounds or consider the need for a policy intervention to address gaps in indicators before introducing telehealth to your target population.

Appendix One: Indicator Definitions

Below is set of indicators that are specifically important to providing tobacco cessation counseling and pharmacotherapy via telehealth. In addition to a definition, the recommended policy supported by ATA, CCHP, and/or FSMB are provided. These indicators provide a framework for assessing opportunities related to telehealth and tobacco cessation. Tobacco control professionals interested in assessing their state environments can use these resources to identify both barriers and assets supporting the advancement of telehealth as a tool to support tobacco cessation.

Using the resources developed by ATA, CCHP, FSMB and others, public health professionals can track the status of the tobacco-relevant indicators in their state and produce an analysis to identify obstacles which need to be overcome or opportunities that can be leveraged to support tobacco cessation.

Indicator	Definition	Recommendations from Industry Experts (cited)
Physician/Clinician Practice Standards		
Defining Physician - Patient Relationship	The physician-patient relationship has traditionally been based on in-person interaction, with some caveats for telephone follow-up (e.g. Post-discharge). The advent of telehealth raises new questions regarding verifying patient and provider identity and location, disclosing credentials etc. This has resulted in policy specific to what constitutes a patient-provider relationship and if an in-person consultation be required to establish this in advance of initiating telehealth services.	The Federation of State Medical Boards (FSMB) states that this physician-patient relationship is fundamental to the provision of acceptable medical care. FSMB discourages the provision of teleservices without first verifying/ authenticating the location and identity of the patient, disclosing the provider's identity and credentials and obtaining consent.[51] FSMB does not specify if this must happen in-person. Requiring in-person could be a barrier for seeking tobacco cessation support
Eligible Technologies	• Live Videoconferencing (Synchronous): Live two-way interaction between a person and a clinician using audiovisual telecommunications technology • Store-and-Forward (Asynchronous): Transmission of recorded health information or images to a clinician for evaluation or services outside of a real-time interaction • Remote Patient Monitoring (RPM): Digital transmission of health data from an individual in one location to	

	clinicians in a different location for use in care and related support • Mobile Health (mhealth): Healthcare and public health practice and education supported by mobile communications devices such as cell phones and tablet computers; does not necessarily include a clinician • Telephone: Live two-way audio-only interaction between a person and a clinician	
Patient Setting	The place where the patient is located at the time of service is referred to as the *originating* site. The site where the provider is located is the *distant* site. • Medicare requires the originating site be a medical facility, such as a physician's office, hospital or rural health clinic; not the patient's home. However, Medicare Advantage Plans and some Medicare demonstration projects permit the originating site to include the patient's home.	The American Telemedicine Association (ATA) recommends that telemedicine encounters should not be restricted to medical facilities, nor should a physician or patient be constrained with mandatory health settings if not medically necessary.[52]
Licensure		
Eligible Providers (scope of practice)	State Scope of Practice laws define what services a physician and other health professionals can provide.	The ATA recommends that states not specify an eligible provider for specific services but rather work within existing scope of practice requirements. This extends to all qualified healthcare professionals (e.g. Counselors, pharmacists, physical therapists and dentists).[53]
Provider Licensure	There are 70 state medical and osteopathic licensing boards in the US and territories as well as comparable boards for other clinicians (e.g. Nurses, psychologists, dentists). These boards are the agencies that license medical providers, investigate complaints, discipline providers that violate the medical practice act and refer providers to evaluation and rehabilitation when appropriate. A provider using telemedicine must comply with the same standards established for in-person medical practice	The Federal Trade Commission (FTC) supports minimal additional standards for telehealth providers and has frequently commented on state legislation in support of measures that expand the supply of providers and promote competition.[55]

	and is accountable to the respective medical boards in which he or she is licensed. [54]	
Internet Prescribing	Online prescribing or internet prescribing refers to a provider prescribing a drug to a patient based upon an interaction that has taken place online.[56] This is largely determined by state medical boards and often is linked to the definition of a physician-patient relationship (see above). Federal law prohibits dispensing *controlled substances* via the internet without a valid prescription. There are specific circumstances such as emergency care that are permitted.	The FSMB recommends: To uphold patient safety in the absence of a traditional physical exam, the interaction must include clearly establishing the identity of the patient and providers, detailed documentation of the clinical evaluation and informed, accurate and error-preventing prescribing practices (such as integration of e-prescription systems).[57]
Networks/Access		
Distance/ Geography	Distance restrictions are measured in miles and designate the distance necessary between a distance site provider and patient as a condition of payment for telemedicine. Geography is the classifica-tion of rural, urban, metropolitan statistical area (MSA), defined population size or health professional shortage area (HPSA). • Medicare currently pays for telehealth services when the patient being treated is in a health professional shortage area or in a county that is outside any metropolitan statistical area, as defined by the Health Resources and Services Agency and the U.S. Census Bureau, respectively. Exceptions to this include Medicare pilot projects and Medicare Advantage.	ATA views geography/distance limitations as an obstructive policy restriction on telehealth.[58]
Parity		
Payer Parity	**Service** parity means that telehealth services should be covered to the same extent and in a similar manner as in-person services. Note: Service parity does not increase covered services, but explicitly recognizes telehealth as a way to deliver existing covered services.	ATA considers telehealth neither a benefit or a service but simply another modality through which patients can receive services. In this case, benefits and cost share should not be different from in-person visits.[59] ATA's model legislation applies to health insurers, healthcare subscription plans, health

	Payment parity means equal payment for services regardless of how it is provided.	maintenance organizations, disability insurance programs, workers' compensation programs, all state employee health plans, as well as Medicaid plans.[60]
Medicaid Parity/Specific Requirements	States may set their own Medicaid telehealth requirements. If the services and authorized providers are the same as traditional delivery, state plan amendments and federal approval is not required.	

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