

A Policy to Increase the Minimum Legal Sales Age for Tobacco and Nicotine Products from 18 to 21: Health Equity Implications

T21 Policy Health Equity Impact Assessment Technical Report

June 2017



The Multnomah County's 2016 Community Health Improvement Plan's (CHIP) fourth health equity priority is to Support Family and Community Ways. The CHIP report explains that to be truly healthy, there must be a balance of wellness in physical, mental, emotional, and spiritual health. The social context in which individuals live must also be well in order to support the individual in attaining optimal health. This HEIA report aligns with the content of that goal - suggesting that families and communities must function in positive ways, mutually supporting and reinforcing strengths and resiliency in the face of challenging external circumstances, in order for individuals to thrive¹.

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A Health Equity Impact Assessment on a Tobacco Sales Age Policy to Inform Decision Makers about the the Needs, Values and Experiences of Impacted Communities

Introduction

A healthy community and thriving future generation is a vision that is central to Native peoples and public health. Prevention is a cornerstone to promoting healthy communities. Cigarette smoking causes nearly one in five deaths a year in the United States². Tobacco-related illness undermines community health, and is considered one of the leading preventable causes of death and chronic disease in the United States and Oregon^{3,4}. Reducing smoking rates and delaying initiation age are two of the most effective approaches to prevent, and overcome, long-term tobacco addiction and the detrimental health impacts resulting from tobacco use. Additionally, Native American peoples consider tobacco as sacred medicine necessary for health and wellness, and appreciating this cultural belief may be helpful in tobacco control efforts and achieving health equity.

In the spirit of promoting healthy communities, Multnomah County commissioners and Oregon legislators are considering new legislation to increase the legal sales age of tobacco from 18 to 21 years of age. This new legislation, called Tobacco 21 (T21) has been shown to result in reduced youth tobacco access, which may then lead to later age of initiation, and a subsequently reduced rate of smoking and smoking-related addiction in youth⁵. Public health concerns such as preventing youth access to tobacco and nicotine and addressing health disparities to avoid chronic disease and cancer have been, and continue to be, a high priority for Oregon policy maker discussions about changing the sales age of tobacco⁶.

Currently two states and multiple counties and cities have adopted a T21 policy. However, none of these jurisdictions have outlined the potential impacts of a T21 policy to communities of color and other impacted groups. Such information is necessary to ensure the benefits of a T21 policy are maximized among all populations, and any harmful risks are reduced or avoided all together. To help inform this new tobacco control legislation (T21), this Health Equity Impact Assessment (HEIA) explored the potential impact of such policy on communities of color, emphasizing three areas of concern: 1, access and health equity, 2, economic equity, and 3, social equity This HEIA examines Oregon's state T21 policy, draws from current data, research literature, and focus groups that were completed in Multnomah County among youth of color to examine potential health equity impacts.

A Health Equity Impact Assessment (HEIA) is used to examine and assess potential health equity effects of a policy and offer recommendations to minimize unintended harms and inequities and maximize health benefits, outcomes, and potential for equity.

Health Equity and Commercial Tobacco Issues

Communities of color are disproportionately impacted by a history of targeting by tobacco companies⁷, institutional racism⁸, and inequitable health care access⁹ that have led to higher rates of smoking and tobacco-related illness¹⁰. *Conducting an HEIA on changing the tobacco sales age to 21 is intended to assess and provide information to understand potential impacts (positive and*

negative) of such a policy on communities of color and those most impacted. Such information may be used to guide and shape policies so they are equitable and positively contribute across all communities. Example health equity concerns about commercial tobacco include:

- U.S. policies were implemented that prevented cultural practice and traditional ceremony, including those related to tobacco among Native American peoples. Such policies have lasting negative health impacts on Native American peoples, including a failure of considering the social, cultural and historical experiences of Native American peoples when developing and implementing health policy and programming¹¹.
- Tobacco use disproportionately affects communities of color: 2 in 5 Native American/Alaskan Native, 1 in 3 Black/African American, and nearly 1 in 3 Latino adults report smoking in Multnomah County relative to 1 in 5 of white, non-Latino adults¹².
- Tobacco use disproportionately affects communities who experience social stress: More than 1 in 3 people who earn less than \$15,000 a year smoke; residents with mental health challenges and substance use history are nearly twice as likely to smoke; and members of the Lesbian, Gay, Bisexual, Transgender, Queer and Two Spirit community have a higher user of tobacco than heterosexual peers¹³.
- Tobacco use affects young people – 1 in 5 Multnomah County surveyed 11th graders reported using some type of tobacco in the last month¹⁴ - and most surveyed 11th graders in Multnomah County report starting to use cigarettes between the ages of 12 and 16, and other types of tobacco between 13 and 17¹⁵.
- Electronic cigarette use (also called vaping or e-cigs) tripled among 11th graders since 2013, with nearly 1 in 5 in Multnomah County using them in 2015¹⁶.
- Rates of illegal sales of commercial tobacco to minors in Multnomah County were among the highest in the nation, with 1 in 4 retailers illegally selling tobacco to minors in 2014¹⁷
- Commercial tobacco companies spend most of their money in retail stores where they reach young people with flavored items, price discounts and advertising.

HEIA Partners

Historically public health policies have been formed and implemented without meaningful input and guidance from impacted communities, especially communities of color. Such deficiencies may result in policies that unintentionally create new barriers and/or perpetuate risk that may undermine health equity. To address this issue, members of the Oregon Health Equity Alliance (OHEA) - a group of more than 44 organizations that seek to make Oregon a more equitable place for all - focus on promoting policies that consider racial equity. One OHEA goal is to lower youth access to addictive commercial tobacco and nicotine products. Representatives of OHEA's culturally based community organizations wanted to understand if a T21 policy would have similar or different impact of reducing access to nicotine and commercial tobacco among youth of color relative to all youth. This understanding was sought because communities of color generally experience higher burden of tobacco related diseases. One member organization of OHEA is the Native American Youth and Family Center (NAYA), which led the development of this HEIA.

Based on a precedent of a prior HEIA on Tobacco Retail Licensing being used by Multnomah County commissioners and staff, OHEA organizations felt that decision makers would likely be receptive to an HEIA on T21 and NAYA offered to take the lead. Together, Multnomah County Health Department, NAYA, and other members of OHEA applied for a grant to fund an HEIA on a T21 policy. For more information about the steps of the HEIA process, the scope and how this project followed the minimum elements of HIA see Appendix 1.

The goals of this 2017 Health Equity Impact Assessment were to:

1. To critically analyze health equity impacts to inform and expand the Multnomah County Commissioner policy decision-making process to better meet the needs, values and experiences of communities most impacted by the potential T21 policy, especially communities of color.
2. Expand public understanding about the health equity impacts of a T21 policy on communities most impacted, especially communities of color by emphasizing access, social and economic equity factors.
3. Use social determinants of health framework and Indigenous lens that places community at the center of this work; values culture, community expertise and knowledge.
4. Build institutional capacity for public health policy to be informed by a social determinants of health and an Indigenous lens along with meaningful community engagement.

NAYA was founded by parent and Elder volunteers in 1974, and incorporated as a 501(c)(3) non-profit organization in 1994. NAYA serves self-identified Native Americans, infants to Elders, from across the Portland, Oregon, metropolitan area. “Guided by our elders and trusted by the community, NAYA creates a place for our people to gather together and live the values of our own unique cultures. When the Native community thrives so does the entire Portland region. NAYA offers a wide array of comprehensive services and community-based solutions, including lifelong educational opportunities, cultural identity, leadership development, elders support, homes for families, early childhood programs, and paths to financial security based on traditional tribal values. We are committed to eliminating poverty, hunger, family violence, and homelessness. NAYA is an urban center building strong partnerships and authentic relationships with tribes, organizations, communities of color, and our neighbors throughout the region. NAYA is led by a board of directors that reflects the Native community, and all strategic decisions made throughout the organization are youth centered, family driven and elder guided.” (<http://nayapdx.org/>)

About Health Equity Impact Assessment

A Health Equity Impact Assessment is a Health Impact Assessment with an expanded equity focus. The National Research Council defines Health Impact Assessment (HIA) as “a systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program or project on the health of a population and the distribution of those effects within a population. HIA provides recommendations on monitoring and managing these effects¹⁸.” Health equity focused HIAs have become increasingly common in Europe¹⁹ in response to criticism that HIAs have not historically done an adequate job of focusing on equity even though this is a foundational value of the practice^{20,21}. Both an HEIA and an HIA begin with a proposal that is not established or implemented, including a policy that is only under consideration by decision makers. This is a tool that provides an in-depth synthesis of information derived from various sources, including peer-reviewed research, data and community expertise, to establish and characterize potential positive and negative health impacts resulting from the proposal under consideration. Based on the assessment of the information, an HIA makes qualitative judgments about the impacts and then offers a set of recommendations to inform policy and program decisions to minimize harm and maximize health equity. For more information about the HEIA process, see Appendix 1.

Definitions:

- **Health Equity:** Attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and healthcare disparities⁴.
- **Health disparities:** Differences in health outcomes or health status among populations.
- **Health Inequities:** Differences in health that are avoidable, unfair, and unjust⁵.
- **Determinants of Health:** The range of personal, social, economic, and environmental factors, which determine the health status of individuals or populations⁶, also called health factors in this report.
- **Health Impact Assessment (HIA):** A systematic process that uses multiple methods and data sources, and considers input from stakeholder to determine the potential effects of a proposal on the health of a population and the distribution of those effects. HIA provides recommendations for monitoring and managing those effects².
- **Health Equity Impact Assessment** is a tool to analyze a new proposal's potential to impact health disparities and/or impacts on health disadvantaged populations. It is an adaptation of HIA with an explicit focus on equity¹.

Background on Increasing the Minimum Sales Age for Tobacco Products to 21

This section provides background information about T21 policy, the state T21 legislation that this HEIA is based on, and other tobacco-related policies that are related to T21. It also describes the current number of youth in Multnomah County who would be affected by the policy.

T21 Policy Shifts the Sales Age to 18 to Prevent Youth Access

Changing the sales age of tobacco is considered a public health prevention effort because among people who smoke daily, 88 percent of smokers report beginning use before the age of 18²². Nicotine addiction is more difficult to break in adulthood because the developing child and adolescent brain is more susceptible to nicotine²³. Young adult smokers have the highest smoking rates of any age group in the United States, and early years of smoking solidify addiction²⁴.

Laws are in place to prevent tobacco sales to youth. Current Oregon laws require that anyone selling tobacco ask to see the identification of someone who appears to be under the age of 27 and prohibits sales to people under the age of 18. Oregon also has a Minors in Youth Possession (MIP) law on the books. Oregon Revised Statutes section 167.401 currently states “it is unlawful for a person under 18 years of age to possess tobacco products or inhalant delivery systems.” Anyone who does so commits a Class D violation which can result in a young person paying a fine, taking a tobacco education program, taking a tobacco use cessation program or performing community service related to diseases associated with consumption of tobacco products (ORS 167.401)²⁵.

Changing the sales age from 18 to 21 through the proposed policy called T21, would require retailers to stop selling tobacco and nicotine products such as electronic cigarettes, or vape pens, to people 20 years of age and younger. Passing T21 policy in Multnomah County would most directly affect tobacco retailer's ability to make sales to young people between the ages of 18 and 20. A T21 policy could prevent young people ages 18-20 in Multnomah County from buying commercial tobacco and nicotine products and sharing them with their younger peers.

Based on the 2010 Census²⁶, in Multnomah County, approximately 75,000 youth may potentially be affected by a T21 policy. This number is based on the following estimates of youth residing in Multnomah County as listed in Table 1. The number of youth of color in 2015, based on a different data sources, was nearly 26,000²⁷.

Table 1 Estimate Number of All Youth, Including All Races and Ethnicities in Multnomah County*	
Age Range	Number
12-14	23,180
15-17	23,258
18-20	27,743
*Estimates based on the 2010 Census	

Current T21 and Related Policy in Oregon and Multnomah County

Oregon currently limits sales of commercial tobacco and nicotine products to people at age 18. Multnomah County’s tobacco retail licensing system ensures they can monitor these legal sales at the county level. Multnomah County Commissioners have indicated they are willing to consider changing the sales age to 21 at the county level if the state does not take action²⁸. While a draft T21 county policy is not available as a template at the time of writing this report, this HEIA uses Oregon’s introduced T21 policy in Senate Bill 754 policy as a starting point from which to assess potential health equity impacts. The introduced version of Senate Bill 754 would apply to all cities and counties in Oregon. The bill includes the following provisions:

- defines tobacco to include inhalant delivery systems, also called “vape,”
- removes the Minors in Youth Possession law,
- applies the sales age to all youth without exceptions for active military personnel,
- puts the responsibility of selling tobacco on retailers including fining them for sales, as is already required by the current sales age of 18,
- and requires all retailers to clearly post the sales age²⁹.

An engrossed amended version of Senate Bill 754 allowed enforcement officers to confiscate the commercial tobacco products or inhalant delivery system items (section 4)³⁰. The introduced SB 754 policy does not “grandfather” in young people between the ages of 18 and 20 who are already legally allowed to buy commercial tobacco, rather it would immediately prevent them from purchasing items when it takes effect.

T21 in Other Locations

Currently, more than 230 cities and counties in 17 states across the US have changed the minimum sales age for tobacco to 21³¹. Hawaii and California also recently passed T21 laws at the state level. The state of Hawaii did not remove its Minors in Youth Possession law³² while the state of California did³³. In Oregon, Lane County passed a T21 ordinance and Clackamas County commissioners have recently discussed passing a similar policy.

Various places in the country are considering changing the sales age to prevent people between the age of 18 and 20 from giving tobacco to their younger peers. This is based on recent evidence that changing the sales age can reduce youth social access and therefore initiation of tobacco and

nicotine use, even though social sources such as family members and older young people will not shift³⁴. For example, after Needham County in Massachusetts gradually changed the sales age increasing it annually by a year until age 21, in a four year time period the reported numbers of youth smoking dropped 6 percent among all youth, including youth of color, and youth in grades 10, 11 and 12 compared to nearby communities who did not change the sales age³⁵.

Needham is often used as a case study about the potential benefits from T21, for example the rate of smoking during pregnancy in Needham is 90 percent lower than for the overall state of Massachusetts, and mortality from lung cancer is lower than the state average³⁶. In general, research based on national estimates indicate that among adolescents, those between the ages of 15 and 17 are the age group that would experience the greatest reduction in access to commercial tobacco and initiation of tobacco use from a T21 policy³⁷.

T21 Builds on Previous Tobacco Policy: Tobacco Retail Licensing Policy (TRL)

After several years of having higher than national average illegal sales of tobacco to minors³⁸, Multnomah County Commissioners in 2015 passed a tobacco retail licensing policy (TRL) and created a system where retail owners of stores that sell tobacco must buy a license to sell tobacco and vape products, similar to the way vendors are required to buy a license to sell alcohol. This strategy was used by the County to track, monitor and report illegal sales of such products to those under the age of 18, and to promote adherence to the requirements of the licensing policy. In Multnomah County, the TRL policy took effect in July of 2016. To further tobacco control efforts, currently, the state of Oregon and Multnomah County are considering a new policy called Tobacco 21, which will increase the minimum legal sales age for tobacco and nicotine products from 18 to 21. The state of Oregon introduced legislation in early 2017 to change the minimum legal age limit of sales of tobacco products, which includes vapor products, to 21 years (T21). Oregon Senate Bill 754 passed the Senate Committee on Health in March, 2017 and as of May was in the House with a Recommendation to pass³⁹. If the Oregon bill passes, Multnomah County will need to align its tobacco retail licensing system to a shift in sales age from 18 to 21 rather than pass a County level policy.

These efforts are particularly important because commercial tobacco use affects a higher number of people of color – creating an inequity in tobacco-related health burdens experienced by these populations, including heart disease, stroke, Type 2 diabetes and many types of cancer. All of these health conditions are preventable. Additionally, tobacco companies historically targeted residents in the most vulnerable neighborhoods, including higher density in neighborhoods, by advertising and promoting to communities of color and people experiencing economic hardship^{40,41} which has resulted in tobacco related health inequities. *Tobacco companies historically co-opted Native American cultural traditions in order to sell commercial tobacco products for their profit*⁴²

Figure 1 HIA Steps

1. **SCREENING** determines the need for and value of an HIA.
2. **SCOPING** develops a plan and timeline for the HIA that defines research questions, health outcomes and vulnerable populations.
3. **ASSESSMENT** involves using existing data, expertise and experience to profile existing conditions, evaluate the direction and magnitude of potential health impacts, and make policy recommendations.
4. **RECOMMENDATIONS** advocate in the most effective way possible actions that will improve health outcomes of the policy.
5. **REPORTING** communicates the HIA findings and recommendations.
6. **MONITORING AND EVALUATION** tracks the impact of the HIA on the decision making process.

T21 HEIA Methods and Scope

This HEIA on T21 used methods of HIA⁴³ merged with racial equity analyses⁴⁴ for an explicit racial equity focus⁴⁵. This HEIA followed the six steps of HIA (see Figure 1). This report is part of the fifth step, reporting the findings and recommendations. See Appendix 1 for list of questions we answered in the Assessment step of the project. This project builds on a prior HEIA that explored tobacco retail licensure in Multnomah County, and incorporated an equity and empowerment lens into the HIA process to put racial equity front and center of the HIA process⁴⁶.

This process was guided by input from the Native American community in Multnomah County. A team of community members and staff from the Native American Youth and Family Center (NAYA) and members of OHEA partnered to develop and provide feedback on a draft scope for the HEIA see Appendix 1 for more details about that process. The group developed a scope, or the boundaries for the assessment, that examines the health, social and economic equity impacts of T21. Information was drawn from secondary data, the research literature and focus groups completed among youth of color. Appendix 1 includes the questions that were examined in the literature and focus groups.

The HEIA team analyzed multiple sources of information and data together to complete the Assessment. The HEIA team conducted a literature review and focus groups to understand current conditions of commercial tobacco access and factors affecting health equity outcomes. Additionally, much of this HEIA was framed and guided by an Indigenous lens where ceremonial tobacco is considered by Native American peoples as sacred medicine and necessary for health and wellness.

Youth Focus Groups

The HEIA team completed three focus groups with youth of color. The youth are residents of Multnomah County and receive services from the lead agency of this HEIA (NAYA). The team lead developed and used a structured interview guide. The HEIA team completed three focus groups comprised of youth that were: gang impacted, houseless, or students of NAYA's Early College Academy:

- 16 youth of color participated
- 14 self-identified as male, 2 as female
- NAYA staff, including managers, within the Youth and Education Services recruited the youth
- Topics explored: youth perspectives, experiences, and knowledge about the potential impacts that a T21 policy would have on them as well as their peers, emphasizing access, economic, and social factors
- The team lead developed focus group questions with community input that was received early in the HEIA process.
- NAYA-Community Health Workers coordinated and co-facilitated the focus groups

The information from these focus groups is integrated throughout the HEIA process and report. Further, the HEIA-T21 team used content of the focus groups to provide a local context of the potential impacts and views of a T21 policy from the perspective of youth of color. Research from

other parts of the country does not provide local environment context, and even fewer consider issues of equity. Where possible, we used focus group information to provide confirmation to what we found in the secondary data and research literature, identify gaps in that information, and develop recommendations for maximizing health equity if a T21 policy is passed.

Community Concerns and the HEIA Scope

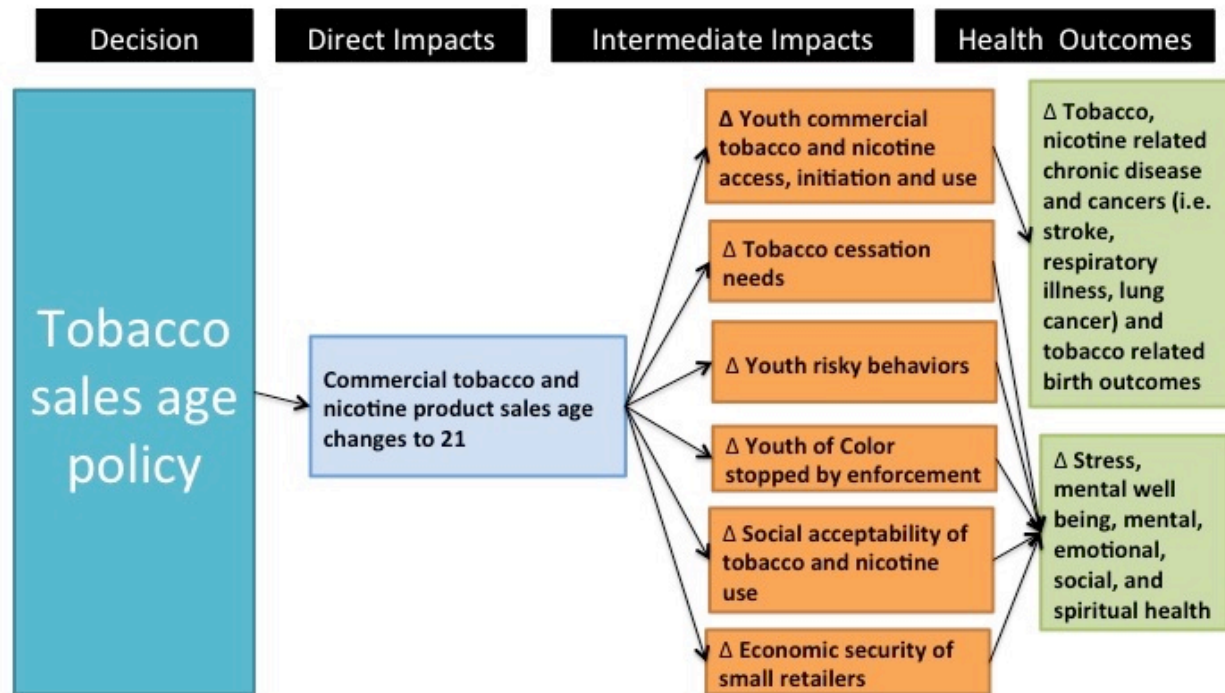
In a prior HEIA on Multnomah County Tobacco Retail Licensing policy, OHEA members discovered patterns of historical marketing and promoting to people of color and people experiencing economic hardship also show up in the Portland area^{47,48}. Since neighborhoods with more people of color are more likely to have more tobacco retailers than other areas, this means a greater potential exposure to tobacco advertising to children and young people of color in these neighborhoods⁴⁹. For these reasons, the assessment team focused on assessment questions that explore how likely a T21 policy would have equitable impacts on youth access to commercial tobacco, initiation and use, and related health outcomes. The HEIA-T21 assessment team explored potential social and economic inequities related to racial profiling and possible increased costs to tobacco retailers. The focus groups and the HEIA scope of assessment questions examined three major pathways that can lead to health equity impacts, listed below. See Figure 2 for the HEIA scope.

- “Access Impacts,” how do youth access tobacco products; how will a T21 policy increase or decrease health risk related to how youth get tobacco products.
- “Economic Impacts,” what are the financial and subsequent health risks related to behavior, social, emotional, physical factors.
- “Social and psychosocial Impacts,” how will a T21 policy impact how youth are treated and their ability to engage in traditional cultural practices: law enforcement (e.g. profiling and how this may occur or does occur); school systems (e.g. disciplinary action, stigmatizing of youth); culturally (e.g. ceremonial, gifting, medicine); inter-personal relationships and interactions (shaming, stereotype threat, stigma, social connections and acceptance).

OHEA members also had concerns about how an abrupt loss of access to tobacco may impact youth that are current smokers/users of tobacco products. The HEIA T21 team was also concerned about the impact of a T21 policy on the ability for Native American youth to access commercial tobacco for use in traditional cultural practice. These issues are concerning because they may cause unnecessary psychosocial stress in youth, that may then lead to psychological and physiological responses that undermine their mental, physical, spiritual, and emotional wellbeing, as shown in the bottom portion of the scope diagram.

The HEIA pathway diagram (see Figure 2) starts with the T21 policy on the far left in blue, and traces the short term to long-term potential effects of that policy moving from left to right. Each of the boxes includes specific impacts we examine in this report.

Figure 2: HEIA Scope on Policy to Change Legal Sales Age to 21



Implications of a T21 Policy within a Cultural Context

Commercial tobacco is often used as an affordable and accessible stand-in for sacred and ceremonial plants used in traditional cultural practice. In part, the continued use of commercial tobacco in many Native American cultural practices results from a history of U.S. Government laws that made it illegal for tribal members to practice religious and cultural traditions^{50,51,52,53}. Other government policies have resulted in the dispossession of land through forced removal of Native Americans from their homelands, resulting in severing access to traditional forms of tobacco and disrupting connections to a traditional medicine and cultural practice, as well as the passing of knowledge and teachings from one generation to the next⁵⁴. These historical policies, laws and ensuing events enacted by the U.S. government have had enduring negative impacts on individuals, families and communities, that have lasting negative impacts carried across the generations (e.g., intergenerational trauma)⁵⁵. More broadly, this loss of access to cultural practice and knowledge and unhealed trauma may lead to maladaptive coping mechanisms among individuals - including smoking -and such behaviors may be exacerbated by contemporary forms of trauma experienced by Native American youth including racism, oppression, discrimination, and stereotype threat^{56,57}.

Tobacco policies that fail to consider the historical-political-cultural context of tobacco and Native American health may unknowingly cause and/or perpetuate contemporary experiences of trauma among Indigenous peoples. Additionally, there is real concern and threat that a T21 policy may increase racial profiling among youth of color through the ability to stop, search and remove tobacco or paraphernalia from young people, including Native American youth. HEIA assessment

team members are concerned that this can lead to unnecessary psychological stress, harmful stress coping behaviors – for example reinforcing smoking tobacco or using nicotine products - among the youth, as well as fear about being stereotyped, stigmatized and even jailed. If the T21 policy does not entail removal of the Minors in Possession law and if it allows young people to be stopped for possession of tobacco by enforcement officials, such encounters may increase risk among youth. Decision makers that enforce a T21 policy may benefit by considering inequalities, such as bias and institutional racism, that affect T21 programming and enforcement. Failure to do so may lead to decision maker disinvestment and may lead to strategies that further marginalize and criminalize youth of color⁵⁸. See figure 2 for the HEIA scope.

Assessment of Health Equity Impacts Related to Increasing the Tobacco Sales Age

This section of the report provides a review of different sources of information, including state and county data, published research literature, and focus group input from youth of color in Multnomah County. For each of the following sections, the information describes what we learned from existing condition data, what we learned from focus groups where relevant, and what we learned from research literature. This section of the report explores the following assessment questions:

- How do youth currently access commercial tobacco and nicotine products, especially through social sources (see Figure 3)
- How will increasing the age limit from 18 to 21 influence the ways that youth gain access to commercial tobacco and nicotine products?
- Will access to sacred tobacco for youth 18-21 be more difficult? Will native youth have to travel far distances to get tobacco? For Native American youth, how will limiting access to commercial tobacco and nicotine products impact traditional cultural practice and sharing of cultural knowledge?
- Will T21 change (reduce or increase) tobacco and nicotine product use in youth?
- Will T21 change tobacco or nicotine product use in youth of color specifically?
- Will T21 change the age of initiation of tobacco use?
- What is the impact of T21 on the age of initiation among youth of color?
- How would tobacco related illness change if T21 were passed for people as they get older?
- Will T21 influence rates of prenatal exposure/maternal use/preconception use/second hand smoke exposure to little ones and related health outcomes?
- Will T21 impact relapse/sobriety for youth in treatment/recovery?

We use data, focus groups and a literature review together to determine what may change as a result of a T21 policy. The conditions in this section are grouped according to access factors that relate to health outcomes.

Pathways from T21 to Youth Tobacco Access and Implications to Increased Health Risk and Risky Behavior

Researchers and advocates argue that changing the sales age from 18 to 21 will reduce access to commercial tobacco and nicotine products which will in turn reduce the potential for young people to begin, or initiate, use. Based on a systematic review of research, the Institute of Medicine predicts that a T21 policy will postpone the age at which youth regularly use tobacco and reduce the number of youth who begin assuming that youth will still use social sources to get tobacco⁵⁹.

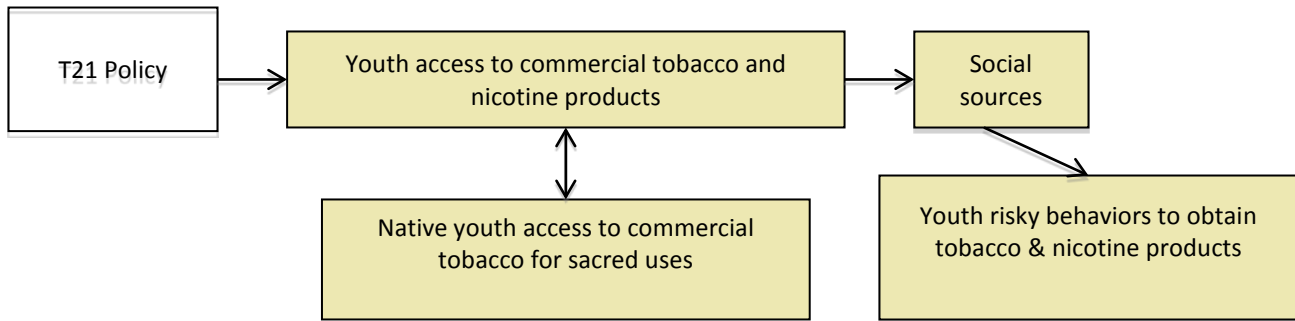


Figure 3: Pathways to access tobacco

Consistently, research into youth tobacco behaviors have shown that youth ≤ 20 years of age use a variety of methods to access cigarettes and other tobacco products, including getting them from family members (i.e. parents and older siblings) and friends⁶⁰. Research findings show that a *T21 policy will not prevent youth from accessing tobacco through social networks. In other words, even after increasing the legal age limit for tobacco sales from 18 – 21 years of age, youth will still use family members and people over 21 to get cigarettes and other tobacco products.* However, evidence shows the ability to use these resources will be constrained and result in making it more difficult for youth to access tobacco from people under the age of 21. It is uncertain what impact T21 will have on an adolescent’s ability to get tobacco from peers over age 18. Evidence is mixed, some youth may have a decline in access while others do not experience a change. There will be no expected change in the short term in youth’s ability to get tobacco from adult family members⁶¹. Youth will be less likely to get tobacco from retailers⁶². With a T21 policy, Native American youth will still seek access to commercial tobacco for use in cultural ceremonies.

How do youth currently access commercial tobacco products?

In Multnomah County, most surveyed 8th and 11th graders who had used tobacco in the last 30 days report getting tobacco or vape from social sources including friends under or over 18 and family members⁶³. Among 8th graders who use tobacco, 8.4% in Multnomah County got them from friends or family members. Among 11th graders who use tobacco, 23% report getting them from friends or family members⁶⁴. Among those who use tobacco, less than 1% of surveyed youth report getting tobacco or vape from stores in 8th grade, and among 11th graders, less than 4% use this source⁶⁵. In Multnomah County, 1.6% of youth say they get cigarettes from a store or gas station; we do not have data on smokeless tobacco or e-cigarette sources⁶⁶.

Statewide, among 8th and 11th graders who currently use tobacco or nicotine products, more than 3 in 4 youth report obtaining tobacco and vape from friends or family members (see Table 2). Among youth, there are differences in tobacco sources that indicate T21 will affect some youth differently based on age, race, and ethnicity (see Table 2). If T21 were to pass at the state level, it would have the strongest impact on reducing access for youth in 8th grade because those peers would be less likely to access tobacco from 18 to 20 year olds. **Nearly half of all eighth graders in Oregon, across all races and ethnicities, report getting tobacco from peers under age 18** (see Table 2).

Among 11th graders, T21 at the state level would have the biggest impact on Latino and African American students as more of these students report getting tobacco and nicotine products from

friends under the age of 18. **For example, in Oregon, nearly 3 in 4 Latino High School Juniors report getting tobacco from peers fewer than 18.** T21 would be limited in reducing youth access to tobacco that currently obtain them from family members and people over age 21. However, we cannot estimate this accurately for a T21 policy in Multnomah County because of incomplete data.

Table 2: Current tobacco use and source of tobacco among 8th and 11th graders by race and ethnicity, Oregon 2015⁶⁷

	Africa American (%)		Asian & Pacific Islander (%)		Native American & Alaskan Native (%)		Latino (%)		White, Non Latino (%)	
	8 th	11 th	8th	11th	8th	11 th	8th	11th	8th	11th
Report any current tobacco or vape use	18	20	8.9	13.2	21.9	40.2	13.7	21	11.3	24.8
Report obtain from friends under age 18	40.9	43.3	51.8	21.5	46	25	45.2	77.4	46.3	30.4
Report obtain from friends 18 or over	19.8	37.2	20.7 [^]	41.1	29.2	50.9	26.3	45.7	24.5	51.1
Report obtain from family	14.3 [^]	8.3 [^]	15.2 [^]	12.9 [^]	16.2 [^]	18.8 [^]	16.6	12.4	18.7	13.2
All social sources (friends and family together)*	60.2	68.8	75.6	68.0	66.3	74.4	74.9	77.5	74.3	78.7
[^] This number may be statistically unreliable and should be interpreted with caution * Social sources of tobacco include from friends 18 years old or older, friends under 18, and family members. Source: Oregon Health Authority, Public Health Division, Health Promotion and Chronic Disease Prevention section. Current tobacco use and related topics among 8th and 11th graders by race and ethnicity, Oregon 2015.										

The majority of youth that participated in the focus groups believed that a T21 policy was not going to make much of a difference with terms of getting youth to quit smoking because the policy does not address the primary ways they access these products (e.g., through social networks and existing relationships with retailers) and it fails to consider the reasons they use tobacco (e.g., smoke cigarettes) in the first place.

In focus groups, many of the participants suggested that they could access tobacco products fairly easy whether it's through friends, family members, or the retailer they know by frequenting a particular store. They explained that many adults in their lives do not enforce the current smoking law (age 18), and they doubted that adults or others (like retailers) would be serious about the new policy. Importantly, most of the youth believed that increasing the legal age limit for tobacco sales from 18 - 21 would be a positive step in the right direction for protecting and promoting the health of their friends and the younger generation. This was particularly evident when the youth mentioned their younger brothers and sisters; none of them wanted their younger siblings to

smoke or to become dependent on smoking or other tobacco products. (Note: Please refer to page 8 and 9, for a description of focus group methods).

For example, one youth suggested that while they believe that the law should change, they also believed that increasing the age limit would not stop youth from using because it does not address the ways they access tobacco through their social networks as described in the following quote: "If you are going to want to smoke, you are going to want to smoke. You are going to find someone who is 21. I'm pretty sure everybody has a family member or a friend that is at least 21 years old. It is like buying alcohol. Obviously, underage people can't go into a liquor store and buy the bottle, but they can still stay at the house and drink with that bottle. I think it should be changed to 21. I don't think it is going to do much, though. "

Another youth suggested that regardless of a T21 policy, youth would still get tobacco and other nicotine products through their social networks, just as they currently for alcohol.

"I don't really think changing the age is really going to change anything. If you are underage you are going to find somebody who does it, so that becomes part of the social smoking circle. They if you have access to it—it is like alcohol. You are going to tell me I can't drink and I want to drink, I'm going to find a way to drink anyways."

A couple of the youth did mention that even though they believe access to tobacco will still occur through their social networks, asking someone for this help may be awkward and a potential deterrent to asking in the first place:

"I wouldn't really want to go ask people to buy it for me because I am kind of socially awkward, so I'm not really out there to ask someone like that. So I would end up buying more pipes and then I'd probably end up quitting cigarettes eventually."

Some of the youth also described that the T21 will not limit their ability to buy tobacco and other products from stores where they have an existing relationship. Some explained that retailers will sell to them, even though they are currently under the legal age limit, because they "know" the retailer, they have "familiarity" because they go into the store all the time with their friends. For example, one youth described:

"...there are a couple of mini-marts who recognize me. I kind of carry myself older than my age, so I can basically buy my own cigarettes at these places that I've been going for years, because I've been with my friends..."

Literature of good to high quality consistently indicates that friends and family members are a primary source of tobacco for youth with mixed findings about the role of youth visiting stores for direct access^{68,69,70,71,72}. The Institute of Medicine report on T21 indicates that social sources will remain the primary source of tobacco products even if T21 is passed and the sales age is not heavily enforced. In spite of this evidence, the IOM report concludes that there will still be reductions in tobacco use, prevalence and initiation because younger adolescents are less likely to have friends over the age of 21⁷³. In an analysis of communities with strong enforcement of youth access laws such as tobacco retail licensing, researchers found that parents and friends are the

primary sources of tobacco for new smokers. For high school youth, teenage store clerks are the primary source through selling to other teens, stealing tobacco, and helping friends steal it from employers⁷⁴. Among older teens, friends who are over 18 and parents are the next major sources⁷⁵. In a recent analysis looking at changes among sources of cigarettes over time in Minnesota youth, researchers found that as youth got older they were less likely to buy their last cigarettes from a store⁷⁶. They also found that daily smokers were less likely than less frequent smokers to get their last cigarette from another teen and *more* likely to buy it from a store or from others⁷⁷.

Tobacco Access Considering Cultural Health and Social Justice

Conventional tobacco control messages generally portray tobacco as a negative and harmful product. Indeed, there is strong and consistent evidence that habitual use of commercial tobacco is linked to health risks and poor health outcomes, and these patterns are seen across populations as mentioned earlier in this report. Among Native American peoples, tobacco also has cultural significance and meaning that is necessary for their health and wellness. Moreover, among Native Americans, the benefits of tobacco cross social, economic, and political domains and shapes Native American identity and experiences in profound and critical ways⁷⁸. In general, tobacco and its role for emotional, physical, spiritual, and mental healing-health-wellness is a point of view that is under-represented and lacking in the framing and design of tobacco control efforts.

A policy, such as T21, that is void of cultural considerations may result in undermining efforts for social change and justice, that seek to empower and improve the health of Native American peoples through reconnecting to traditional cultural practice and protecting cultural teachings. Within specific cultural contexts, conventional tobacco control messages that fail to consider the cultural norms, beliefs, uses, values and meaning of tobacco may be ineffective in reaching the desired goal of preventing habitual tobacco use and promote cessation⁷⁹. Moreover, health policies and programs may be more successful and reach desired goals when they are designed with an appreciation of the complex social, cultural, and historical experiences of Native American peoples^{80,81}. Otherwise skepticism, mistrust and even trauma among Indigenous peoples may surface or be reinforced because of deep legacy of inequitable U.S. and statewide policies that have harmed Indigenous peoples⁸².

A current reliable source of information about how Native American youth access sacred plants, including tobacco, for use in ceremony in Multnomah County is not available. However, the nearly 600 federally recognized Native American tribes from across the country have used a variety of plants, including a non-commercial strain of tobacco, sage, cedar, sweet grass and willow bark, for cultural ceremony and traditions.⁸³ Historically, many tribal communities did not use tobacco because it did not grow in their original homelands. Today, with more Native Americans moving to urban settings or moving back and forth between reservations/urban settings, use of tobacco in ceremony is a more common practice. Sacred plants are considered “good medicine” and often offered to honor and welcome guests, to bring intention, gratitude and blessings, and other traditional cultural practices^{84,85}. Tobacco has cultural significance, and is traditionally used for ceremony, medicine, and wellness⁸⁶. Native people may use commercial tobacco in ceremony to overcome barriers related to access: having no access to physical spaces where the plant is grown and can be harvested; plants that are free of contaminants; limited access due to a multitude of interconnected economic hardships, including poverty, geographic isolation, and lack of transportation.

Two of the focus group participants indicated that they and others would have to travel further distances to obtain commercial tobacco. Two participants said that they use commercial tobacco in prayer and ceremony. This ceremony is a form of spiritual healing. There was not any information regarding how ceremonial tobacco is obtained or how this access might change with the passage of the new law. Expanding on these ideas below are participant quotes:

"For me it is more not the actual cigarette itself. It is more if our family was to use it for prayers and stuff, we would actually have to go buy the actual big loose tobacco to use. My sister will make prayer ties, so she uses tobacco for that".

"To me it is like prayer. It is strength and wisdom."

"I think tobacco, obviously in the Native way, it is kind of a spiritual thing. It depends on which way you look at it. I don't know. I graduated from NAYA, so I kind of see two sides of the story. It is if you look at it in the white man way or the Native way, they are different. We use it more for prayer, spiritual prayer or something like that, the white man normally just smokes it."

T21 is likely to reduce access to commercial tobacco for Native youth. Given that focus group participants describe using commercial tobacco as a stand in for sacred plants, if a T21 policy is passed, Native American youth under 21 will need provisions that protect their access to sacred plants for ceremonial use. If. Protecting this connection may require programs, strategies, funding and partnerships that currently do not exist in broader public health and tobacco control efforts. Moreover, considering tribal best practices vs. evidence based practices may be worth considering in such future efforts. For example, tribal communities in different parts of North America are growing traditional tobacco as a way to build access and knowledge to traditional plants and ceremony with youth⁸⁷ (Personal Communication, CoCo Villaluz from ClearWay MN, 1/4/17). Successful strategies for improved health among Native Americans include those that are multi-generational where elders can interact and share knowledge and teachings with the younger generation. Native leaders can distinguish between sacred plants and recreational use of commercial tobacco in teaching native ways to youth as part of commercial tobacco prevention efforts⁸⁸. Locally, NAYA currently grows numerous sacred plants on its Columbia Boulevard site. These plants may be grown in future gardens, including the Portland Parks and Recreation community-designed Intertribal Gathering Garden located in the Cully neighborhood. Including community voice, expertise and knowledge in the development and implementation of culturally appropriate health programming is important toward achieving health equity among Native Americans⁸⁹. Moreover, such engagement provides opportunity to draw upon the inherent strengths of the community vs. deficits, and may be helpful to reveal unintended bias and assumptions held by the dominant cultural group that generally leads such efforts, and offers opportunity to consider the role of historical-intergenerational-and contemporary forms of trauma and healing.

What Impact Could T21 Have on Youth Tobacco Access and Risky Behaviors to Gain Access?

A very small number of youth in Multnomah County report "taking without permission" to obtain tobacco or vape (less than 1% among 8th graders, 1% among 11th graders) and we do not have this information by race or ethnicity⁹⁰. This low number may reflect youth's unwillingness to share information about illegal behavior.

Focus group participants suggested that it was possible that youth might be compelled to sell tobacco illegally (e.g., like at school) in response to the change in sales age policy. This idea was not a leading concern or issue by the participants, only a possibility. Building on this idea, one of the participants indicated that he actually sold tobacco in high school (without a T21 policy in place) and that he knows others who would likely do the same, especially if tobacco was made less available to teens. Other participants suggested that as a result of the new policy (T21), youth might be more likely to access tobacco in unhealthy ways, including stealing tobacco from their friends or family or as mentioned in a previous section of this report, they might ask a stranger for a cigarette or to buy tobacco for them.

Two people indicated that they have an ID and typically buy cigarettes for their friends. One person said that when he was underage he took cigarettes from his grandma. Another way people access tobacco is by asking strangers for one of their cigarettes or asking a homeless person to buy it for them. The following quote is from one participant describing their first experience using tobacco that also related to stealing it.

“It was actually through a family member. We thought we were cool, because were in a back alley, smoking a cigarette. Look what I go. Look what I stole.”

“Certain stores allow me to go buy cigarettes, even when I wasn’t 18 and I was smoking. You go to the store so much and she would recognize you and know you.”

Pathways to Tobacco Initiation and Use

The following two subsections of this report indicate that when it comes to health as well as quit success, the age at which individuals initiate the use of tobacco matters (see figure 4). In particular the age of tobacco initiation matters to long-term health risk, **youth who begin using commercial tobacco products before the age of 15 are less likely to be successful in their quit attempts and are more likely to display long-term chronic tobacco dependency. Thus, it is a central public health approach to prevent tobacco initiation prior to the age of 15.** Initiation in this context means the age when someone has used 100 or more cigarettes in their life up to this point. The Institute of Medicines T21 seminal report concluded that a T21 policy would most likely limit tobacco access among youth ages of 15 -17 and therefore reduce the potential to start using tobacco. This is related to T21 policy having the greatest impact on reducing purchase access for peers ages 18 to 20. Unfortunately, the IOM report indicates adolescents who reach a threshold of 100 cigarettes before the age of 15 (“initiate”) will not be as affected by a T21 policy because of factors beyond access that are contributing to tobacco use. Similar to national estimates tobacco use among Native American and Alaskan Native **youth is disproportionately higher than their white counterparts.** In the state of Oregon, data in this section shows that by 11th grade American Indian and Alaskan Native youth’s rate of tobacco use is double that of their peers from all other racial and ethnic backgrounds.

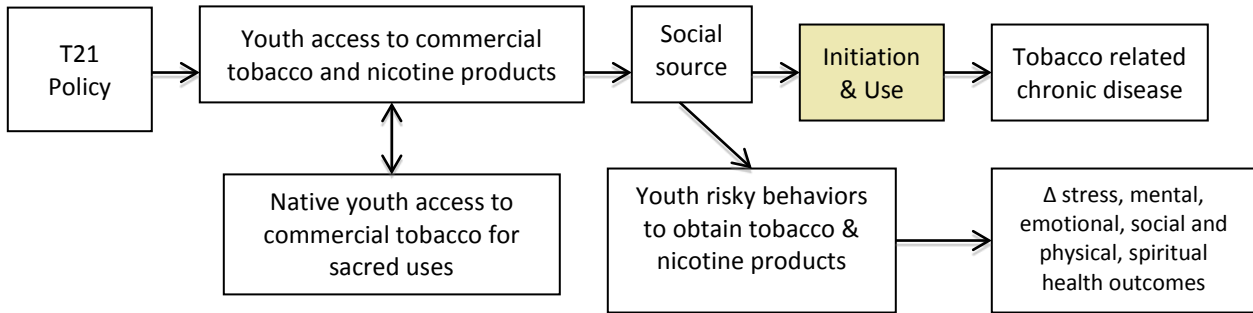


Figure 4: Pathways to initiate tobacco and potential use in the future

Current Data on Youth Initiation and Use of Tobacco and Nicotine Products

Preventing initial use of tobacco when adolescent minds are most susceptible to nicotine addiction is critical for reducing future generations from smoking. In Multnomah County, most students who have used a cigarette in 11th grade report first smoking an entire cigarette between the ages of 12 and 16⁹¹. While this does not tell us the age when youth begin smoking regularly, it’s a beginning for experimentation. Nationally, among adults aged 30-34 who were ever-daily smokers, 90% first tried a cigarette by the age of 18⁹². Of daily smokers, 75% first tried a cigarette by the age of 16⁹³. For those who ended up becoming heavy smokers, they began smoking younger, between the ages of 12 and 16⁹⁴. Younger smokers are more sensitive to the reinforcing, or rewarding, effects of nicotine⁹⁵. As adolescents age, this sensitivity, and risk of addiction, decreases^{96,97}.

Currently in Multnomah County, Native Americans, Alaskan Natives, and African American/Blacks experience a greater burden of tobacco use (see Table 3)⁹⁸. Though we do not have county level data of tobacco use by race or ethnicity, we can use the age-adjusted data for racial disparities in tobacco use among adults within Multnomah County as a starting point. Asian and Pacific Islander numbers should be interpreted cautiously based on information from community input that these rates may be higher.

Table 3: Racial Stratification of Tobacco Use in Multnomah County (Source: 2014 Multnomah County Report Card on Health Disparities)		
	Age –Adjusted % of Current Cigarette Smokers	Disparities Summary
White	20%	Comparison Group
Hispanic/Latino	27%	No Disparity
African American/Black	29.9%	Needs Improvement
Asian/Pacific Islander	12.4%	No Disparity
American Indian	42.2%	Requires Intervention

Within Multnomah County, by 11th grade nearly 1 in 4 adolescents report using a tobacco or nicotine product (see Table 4)⁹⁹. Table 4 shows the smoking status for middle and high school students in Oregon and Multnomah County based on product type. There is overlap in these categories as students could select all that apply. E-Cigarette use is the highest type of tobacco or vape products used among both 8th and 11th grade respondents in the county and state.

Table 4: Multnomah County Youth Tobacco and Nicotine Product Use, 2015

<i>Past 30 Day Use Of:</i>	8th Grade %		11th Grade %	
	<i>Oregon</i>	<i>Multnomah</i>	<i>Oregon</i>	<i>Multnomah</i>
<i>Overall Tobacco Use</i>	12.3	9.6	23.7	21.4
<i>E-Cigarettes</i>	9.3	7.2	17.1	16.0
<i>Cigarettes</i>	4.3	2.9	8.8	7.0
<i>Hookah</i>	4.0	4.3	7.5	7.2
<i>Little Cigar or Cigarillo</i>	2.5	2.4	7.8	5.4
<i>Chew (males only)</i>	3.2	1.7	9.12	5.3

(Source: 2015 Oregon Healthy Teens Survey)

Oregon-wide, it is concerning that more youth of color report using tobacco and nicotine products in 8th grade than their white peers (see Table 5). While these disparities shift for some groups based on the number of youth reporting use in 11th grade, it is concerning that a greater number of Native American and Alaskan Native youth remain burdened with tobacco use before reaching 18. This is important because Native American, Alaskan Native and African American and Black community members are most burdened by tobacco use disparities in Multnomah County¹⁰⁰.

Table 5: Current Tobacco Use, 8th and 11th graders by race and ethnicity, Oregon 2015

	White, not Latino		African American, not Latino		Asian or Pacific Islander, not Latino		Native American or Alaska Native, not Latino		Latino	
	8th	11th	8th	11th	8th	11th	8th	11th	8th	11th
Any tobacco² product use	11.3	24.8	18.0	20.0	8.9	13.2	21.9	40.2	13.7	21.0
Any non-cigarette tobacco use	10.4	23.6	17.9	18.6	8.7	12.4	18.5	38.9	12.9	19.9
Electronic cigarettes or other vapor products	8.6	17.9	13.5	15.1	7.7	8.4	13.0	27.0	10.2	15.5

1- Current tobacco use includes tobacco use within the past 30 days
2- "Any tobacco product" includes cigarettes, large or little cigars, pipe tobacco, hookah tobacco, chewing tobacco, dissolvable tobacco, or electronic cigarettes or other vaping products

^ This number may be statistically unreliable and should be interpreted with caution
-- This number is suppressed because it is statistically unreliable

Within focus groups, the majority of youth from the focus groups began smoking before the age of 18, indicating that they did not obtain their first cigarette legally. For example, one participant began smoking at the age of 10, three indicated that they first started smoking at the age of 13, two began at the age of 15, and one at the age of 16. Many of the youth tried their first cigarette with a friend or family member. One participant noted that a lot of her family members smoke and it just seemed like the thing to do, as expressed in the following quote:

“It was with my group of friends or whatever. If I’m not mistaken, this was a while ago, but I’m pretty sure I asked my friend if I could hit her cigarette. But my mom smoked constantly and so did a lot of my family members. I was brought up into it in a sense. Oh, I got to be like them, right, because they are my role models. I have to kind of follow them.”

One of the participants expressed that smoking for the first time was not a good experience and has regret for being addicted to them now as shared the impact of T21 within this context in the following quote:

“...I am not going to sell my clothes or sell my things to get cigarettes, nothing like that. I crave them, like god damn, I need a cigarette, especially when I am stressing or something like that.”

Another youth shared that their first experience smoking occurred after loss of a family member and that they were somewhat torn between their knowledge that smoking can be harmful to their health and the desire to connect with their friends, as described in the following quote:

“My first cigarette, I think it was after one of my grandfathers died. I was with my friends, and they were, Hey, at the steakhouse, what? You are trying to hit the cancer sticks. That is what they called it. I guess at the moment, I said, F*** it, yeah, and grabbed it. Then I bought my first pack a week later.”

Youth participants believed that the relaxation element of smoking cigarettes was positive, but that smoking would have a long-term negative effect on their health. Cigarettes were commonly referred to as “cancer sticks.” Participants had various beliefs about the harm that cigarettes can cause including, stunting brain growth, promoting cancer, or impacting the central nervous system. One person indicated that they did not know about the long-term risks when they began smoking. Another person thought that nicotine vape pens were worse for people’s health than cigarettes.

Reasons for Youth Using Tobacco

All focus group participants shared that using tobacco (e.g., smoking) was a way to deal with stress, to decompress and relax from everyday stressors and to “feel better” and to connect with their friends. The disconnect between the T21 policy which aims to limit access to prevent tobacco use and the reasons youth smoke was frustrating to the youth. Resulting comments and

perspectives was that the policy does not “really consider their needs or value what they face everyday”. These beliefs are highlighted in the following quote shared by the youth:

Creating a New Stress

"Take an 18 year old or a 19 year old, who is legal enough to smoke now, you change it to 21, and that is their stress relief or that's whatever. For them, you take that away from them, now what? **Are you trying to create a monster** [by not supporting them to quit] or are you trying to help people?"

Harm Reduction

"Say there is an argument or something and you need to go to smoke a cigarettes, but you can't now, because it is against the law for you, even though you are 19, are you going to be more willing to turn around and walk away and try to cool off, or are you just going to fly off the handle at somebody? With a cigarette, you would be more likely to just, you know what, screw that, I'm out [and leave to cool off]."

In response, the youth expressed the desire and need for more information and programs to support current youth-smokers to quit if the T21 policy was implemented. Some suggested the importance of making these programs relevant to their lives, and non-shaming. Instead they asked for programs that were empowering, culturally appropriate, and fun. They felt that the policy could be good to prevent the younger generation from beginning to smoke – and they liked the idea of the youth – including their younger brothers and sisters - not smoking.

The majority of the focus group participants believed that people should be offered more alternatives to smoking such as sports or extracurricular activities. These recommendations of supports from young people connect to researcher’s description of protective factors for youth to prevent use of tobacco. Researchers found that having a good experience in school is a protective factor against Native American youth smoking¹⁰¹. Stressful life events such as death, abuse, serious illness or being victimized are a major risk factor for Native American youth smoking and smokeless tobacco use¹⁰². Among LGBTQI2 (lesbian, gay, bisexual, trans, queer, intersex, two-spirit) youth, social supports reduced the potential of smoking while LGBTQI2 victimization and psychological distress are associated with higher odds of smoking in one study¹⁰³. A statewide study in California found that depressive symptoms among youth ages 12-14 were estimated to be four times greater among adolescents who currently smoked than their peers. Youth most likely to express depressive symptoms included Latino youth, girls, those whose families had incomes below the poverty level and those with fair to poor health¹⁰⁴. Supports, especially related to counteracting stressful life events and depressive symptoms, are critical to preventing youth from using tobacco products. Additionally, the need for supportive protective factors including strengthening cultural identity and connection are important to consider as they help to mitigate harmful stress responses and promote community strength and healing¹⁰⁵. This sentiment is also stated by the youth that participated in the focus groups that were conducted specifically for this HEIA-T21.

What Impact Could T21 Policy Have on Youth Initiation of Commercial Tobacco and Nicotine?

According to the 2012 Institute of Medicines’ (IOM) report on T21, raising the minimum legal sales age from 18 to 21 will have the strongest impact on delaying the age at which youth initiate

tobacco use. The IOM's definition of initiation is having smoked 100 cigarettes in a lifetime; this means that if a 15 year old has hit this threshold they have gone beyond experimentation¹⁰⁶. To get to 100 cigarettes, researchers note that a person would have had access to cigarettes over a period of time, developed symptoms of dependence, and established motivation for use beyond peer or social group pressure¹⁰⁷.

According to the IOM report, **the age group that would likely be most affected initially by a sales age change to 21 would be adolescents between the ages of 15 and 17**¹⁰⁸. Based on a review of the literature, the IOM estimated that raising the tobacco purchase age to 21 would lead to the following reductions in tobacco initiation nationally:

- An average 15% reduction in tobacco initiation for those under 15 years of age
- An average 25% reduction in tobacco initiation for those 15-17 years
- An average 15% reduction in tobacco initiation for those 18-20 years

The IOM review explains that initiation age is critical because of the development stage of adolescents affecting potential for nicotine dependency¹⁰⁹.

Changes in Tobacco Initiation and Use Among Youth of Color

Very little literature on tobacco use in relation to changes in sale age explores shifts in tobacco use by race and ethnicity¹¹⁰. One study found that 4 years after increasing the legal sales age of tobacco to 21, that all youth – including youth of color and their white peers, had similar declines in smoking rates, and in declines in use after initiation, after Needham, MASS raised the sales age gradually to 21 over a 4 year time period and that the rates declined similarly for grades 10, 11 and 12¹¹¹.

Additionally, the IOM T21 report suggests that the age of initiation may not be equally experienced across groups of youth according to sociodemographic categories, and researchers did not calculate estimates to understand whether initiation rates differ according to race and ethnicity of youth¹¹². The research mentions that **adolescents who reach a level of 100 cigarettes before age 15** “may be those who are most susceptible to the reinforcing effects of nicotine, who have higher levels of psychological or substance use comorbidities...and who have social networks within which tobacco and other substances are more readily available, regardless of age. Thus, the **committee also expects that there may be limits to how much changes in the MLA will affect this sub-set of adolescents** (IOM page 6)”¹¹³.

What Impact Could T21 Policy Have on Youth Use of Commercial Nicotine and Tobacco?

Of the limited research available, the majority of it indicates that policies to change the sales age of tobacco to 21 have resulted in declines in adolescent tobacco use in a range of 6 to 18 percent change over time. In Needham, Massachusetts, after four years of changing the legal sales age of tobacco to 21 years, self-reported data showed that among youth in general, the 30-day smoking had decline by 6% (from 13% to 7%). This decline in youth smoking was greater than smoking estimates reported in the comparison communities that had not changed the sales age (from 15% to 12%; $p < 0.001$)¹¹⁴. This decline was consistent for men, women, Caucasian youth and youth of color, and grades 10, 11 and 12. However, by 2010 to 2012, the decline in smoking reached a threshold and leveled off. The researchers suggest that the fall in tobacco use is mostly likely to happen immediately after the sales age changed, then after sometime a plateau is reached and a decline in smoking is no longer seen.

The IOM report suggests that increasing the sales age to 21 years, predicts a 12% decrease in smoking prevalence among youth¹¹⁵. In another study, researchers predict that T21's primary impact is to reduce or delay when adolescents begin using tobacco¹¹⁶. They assume initiation would shift by 3 years, and as a result predict that smoking prevalence would drop an approximate 9 percent from current levels (22% nationwide) to 7.5% for 15-17 year olds and 13.6% for youth 18 and older. In contrast, a recent European study of 19 European countries, some that recently changed the sales age compared to those who changed it many years ago, did not find a difference in smoking prevalence¹¹⁷. However, this study did not report on enforcement of the sales ages across the countries, while the study in Massachusetts documents regular compliance checks in relation to neighboring communities without the change in sales age.

There is a limited research to understand whether this policy would affect all racial and ethnic groups similarly¹¹⁸. One researcher notes that state public policies aimed at tobacco have probably had a significant differential effect on cigarette smoking by race and ethnic groups in the United States, that may contribute to disparities in smoking prevalence rates, yet there is insufficient research to explore this¹¹⁹. Very little has been studied in relation to the influence of state tobacco control policies on Native Americans, Alaskan Natives, Asians and Pacific Islanders¹²⁰. Other Health Impact Reviews on T21 in Washington found that the evidence is unclear about a T21 policy's ability to address existing health disparities for tobacco use^{121,122}. Some limited evidence indicates that lower initiation rates can lead to a decrease in smoking rates across income, race/ethnicity and grade level, while other evidence indicates no change. This could mean that the impact on existing health disparities might be neutral^{123,124}.

Changing the sales age of tobacco to 21 and any benefits it may have on preventing commercial tobacco and nicotine use is related to enforcement of the sales age in tobacco retail outlets. The concentration of places to buy tobacco where people live affects tobacco use and the potential for youth to start or stop using tobacco from exposure to advertising, price promotions and other marketing techniques¹²⁵. For example, a recent study with African American adolescents in Virginia found that living nearby more tobacco outlets increases future intention to smoke, which in turn results in a greater number of days smoked over the next month, even after accounting for the control variables. In other words, given two adolescents the same age, sex, with the same peer and family smoking contexts, and who currently smoke the same number of days per month, the one living nearby more tobacco outlets is likely to smoke more days over the following month¹²⁶. This research is consistent with related studies on adolescents that have found an association between tobacco outlet density and smoking^{127,128}. While the success of reducing access to tobacco and nicotine produces depends on a retail licensing system that requires retailers to enforce the sales age, other multi-level factors are also important and may reach beyond the direct influence of the policy. For example, reducing access may also be dependent on changing community norms related to parental/adult support of underage tobacco misuse and ensuring that youth have healthy alternatives including access to cultural teachings on appropriate use of sacred and ceremonial plans. There may also be need for increased supports for trauma-informed approaches to mental and behavioral health.

Pathways to Tobacco Cessation & Substance Recovery

Changing the tobacco sales age without a gradual transition means that young people from the age of 18 to 20 who may currently have a burden of nicotine addiction would be unable to purchase tobacco or nicotine products. This may be an added challenge for youth who are in substance

recovery programs and managing a nicotine addiction. Changing the sales age for tobacco and nicotine will not address youth tobacco cessation needs of those who are currently addicted to nicotine.

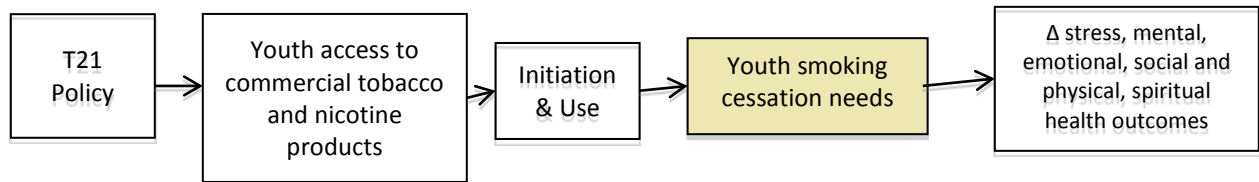


Figure 5: Pathways to tobacco cessation

Current Tobacco Cessation Efforts and Supports

Data from the Oregon Healthy Teen survey indicates that anywhere from 1 in 3 to 2 in 3 of youth across racial and ethnic backgrounds, report attempting to quit smoking cigarettes statewide (see Table 6). We do not have a current picture of the demographics of youth and young adults who want to quit using tobacco products in Multnomah County. Youth of color, youth experiencing economic hardship and youth who identify as LGBTQI2, may be more at risk of developing an addiction to nicotine¹²⁹. For example, low SES individuals are more likely to have a stronger addiction and dependence in part because they roll their own tobacco and smoke cheaper cigarettes, which may have more nicotine¹³⁰.

Table 6: Current Tobacco Use, 8th and 11th graders by race and ethnicity, Oregon 2015

Cessation	White, not Latino		African American, not Latino		Asian or Pacific Islander, not Latino		Native American or Alaska Native, not Latino		Latino	
	8 th	11 th	8 th	11 th	8 th	11 th	8 th	11 th	8 th	11 th
Attempted to quit cigarette smoking during previous years (current cigarette smokers only)	49.4	49.9	--	39.3	59.1	51.0	55.5	68.4	49.7	45.7
-- This number is suppressed because it is statistically unreliable Source: Oregon Health Authority, Public Health Division, Health Promotion and Chronic Disease Prevention section. Current tobacco use and related topics among 8 th and 11 th graders by race and ethnicity, Oregon 2015.										

Changing the sales age of tobacco is not currently linked to any policies or programs related to tobacco cessation efforts. Appendix 2 shows a list of existing tobacco cessation supports universally available in Multnomah County. Of this list, three of them have a version for adolescents and young adults including the Oregon Tobacco Quit Line, SmokeFree text, and TeenQuit. None of these resources are culturally specific or culturally informed.

There are a handful of culturally specific tobacco cessation programs offered for some communities and these programs are generally lacking sufficient funding and have limitations about who is eligible for services. For example the Racial and Ethnic Approaches to Community Health (REACH) program in Multnomah County offers training to local clinics, housing developments and other health care programs to create smoking cessation programs for culturally specific communities¹³¹. The Native American Rehabilitation Association of the Northwest (NARA) offers tobacco cessation programs through its integrated health clinics¹³². The Asian Health Services center has tobacco cessation programming for adults, which includes young adults¹³³. All of these programs lack sufficient funding, and each year these funding sources are at risk of ending. As of this writing, community organizations that provided input to this report do not expect additional funding from government or other sources for youth focused, culturally specific, tobacco cessation programming.

What Impact Could T21 Policy Have on Youth Cessation of Commercial Nicotine and Tobacco?

Changing the legal sales age of tobacco and nicotine products, and limiting access to youth from retail outlets can support youth who are trying to quit using tobacco. Research among adults^{134,135,136} and youth smokers indicates that living nearby more tobacco outlets relates to increased potential for tobacco use and can impede attempts to quit smoking¹³⁷. These research findings are related to those who are actively seeking to cease tobacco use – which requires cessation programming.

Most tobacco control programs for adolescents are based on preventing or delaying initiation. Despite the numerous interventions and prevention programs for smoking cessation, there is limited research on models of providing tobacco cessation counseling to youth that produce cessation results. A meta-analysis of studies on teen cigarette smoking cessation programs, programs compared to control conditions increased the probability of youth quitting by approximately 46% (9.14% vs. 6.24%)¹³⁸. Relatively higher quit rates were found in programs that included a motivation enhancement component, cognitive – behavioral techniques, and social influence approaches. Also, relatively higher quit rates were found in school-based clinic and classroom modalities and those with at least 5 quit sessions. Data also indicated that the effects were maintained at short-term (1 year or less) and longer-term (longer than 1 year) follow-ups.

Research into tobacco cessation programming for youth of color is limited. One recent review indicates many impacted populations including youth experience barriers to accessing tobacco cessation¹³⁹. Our understanding about the applicability of cessation programming to various community and racial-ethnic groups is lacking¹⁴⁰. A review of the effectiveness of culturally modified tobacco prevention and cessation interventions revealed that although culturally tailored prevention intervention, including cessation intervention, appeared to reduce the tobacco use initiation rates among all adolescents and overall tobacco use, they did not produce a similar effect for cessation and more research is urgently needed¹⁴¹.

A smoking cessation program among representatives from 200 Native American peoples in Kansas demonstrated the importance of designing programs that are culturally appropriate¹⁴². Specifically, this study concluded that effective tobacco cessation for Native American peoples should not only consider the cultural significance and use of tobacco within an Indigenous context, but that the delivery and scope of the intervention itself should incorporate traditional indigenous methodologies and cultural practices such as talking circles, and community members as

counselors and facilitators¹⁴³. A study led by the Menominee tribe found that a cessation program among tribal members requires lengthy treatment periods, a holistic framework to address multiple factors including system, individual, and social-level factors¹⁴⁴. Finally, these studies exemplify the importance of changing the social narrative about tobacco as only producing health harms, but should balance this perspective with acknowledging and valuing that cultural tobacco is also good medicine¹⁴⁵.

Potential Impacts of T21 on Tobacco Cessation for Youth in Substance Recovery

While a maladaptive coping mechanism with harmful consequences, some people smoke and use tobacco products in response to stress and stressful situations¹⁴⁶. The research literature indicates that there is a relationship between alcohol and smoking use. For example, frequent drinkers may have lower rates of quitting smoking, and more persistent smoking behavior and those who quit using alcohol are more likely to quit smoking¹⁴⁷. Further, research on adolescent brains and nicotine dependence indicate that chronic, even low amounts of nicotine exposure, can prime the brain for future substance use^{148,149}. Drug dependence is also strongly associated with nicotine dependence¹⁵⁰.

Research with adults shows an association between quitting smoking and maintaining alcohol sobriety and other substance use^{151,152}. For example, one study found that those who had stopped smoking at the first year after substance use treatment intake were more likely to be abstinent from drugs, or drugs and alcohol combined, than those who continued to smoke¹⁵³. One group of authors recommends that clinicians provide smoking cessation treatment in combination with treatment for alcohol or other substance use¹⁵⁴. Among communities of color, recent research indicates that among Latino adults specifically who are enrolled in substance use treatment, those that were current smokers at the time of enrollment had a reduced likelihood of abstinence of nontobacco substances including their primary drug of use¹⁵⁵.

Only one study that included youth smokers found an association between youth quitting smoking and maintaining alcohol sobriety for three months, however after six months youth returned to alcohol and/or tobacco use¹⁵⁶. We currently do not know the impact of T21 policy on youth with regard to recovery from substance dependency.

Pathways to Tobacco Related Health Outcomes

Smoking harms nearly every organ in the body¹⁵⁷. Smoking also affects infant and child development, for example mothers who smoke are more likely to have low birth weights and pre-term births¹⁵⁸. There is also evidence that tobacco use is related to SIDS, and AAs and AI/ANs are at highest risk of low- and pre-term birth, SIDS and maternal mortality. These health outcomes are

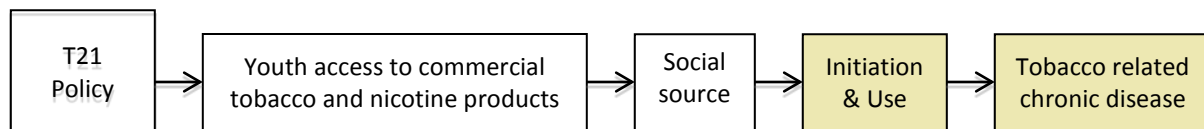


Figure 6: Pathways from T21 to tobacco related chronic disease

not caused by habituated tobacco misuse, rather the risk such health conditions maybe exacerbated by it¹⁴⁹. It is beyond the scope of this report to examine the impact T21 may have on every tobacco-

related illness. This section examines the impact a T21 policy may have in reducing existing inequities in tobacco related chronic disease and birth-related health outcomes connected to tobacco use. Focus group participants described that tobacco can help people relax and it is harmful to health. Research from the Institute of Medicine indicates that T21 will reduce adolescent initiation and use of tobacco and nicotine products, and these patterns are also evident for young mothers and fathers. Based on this prediction it is possible that a T21 policy would reduce chronic disease related to tobacco and nicotine use and exposure to second hand smoke that may reduce tobacco related deaths, premature years of life lost, low weight births, pre-term birth, and Sudden Infant Death Syndrome cases.

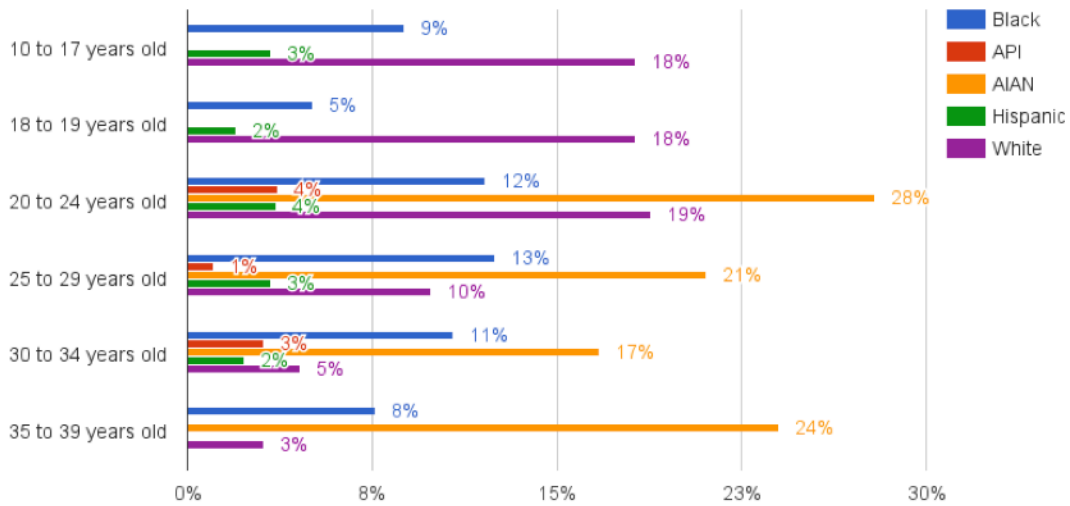
Current Tobacco Related Health Outcomes

Tobacco use is a risk factor for coronary heart disease, stroke and type 2 Diabetes; tobacco smoke exacerbates asthma; and smoking is a causal agent of lung disease such as emphysema and chronic bronchitis¹⁵⁹. Smoking is one cause of lung cancer and is linked to 12 different types of other cancers such as kidney, stomach and mouth¹⁶⁰. Nationally, 90% of smokers report using tobacco before the age of 18; longer-term smokers are more at risk for developing these illnesses over time^{161,162}. In Multnomah County, nearly 1 in 10 of juniors (8.8%) are smokers¹⁶³. Because nicotine is so addictive, about 80% of those who smoke as teens will smoke into adulthood¹⁶⁴. Among those who continue smoking, one-half will die about 13 years earlier than his or her nonsmoking peers^{165,166}.

In Multnomah County, the 2014 Racial Disparities Report indicates that African Americans carry a disproportionate burden of mortality from lung cancer and coronary heart disease relative to other racial and ethnic groups¹⁶⁷. African Americans, Native American and Alaskan Native both experience a disparity of mortality by stroke¹⁶⁸. African Americans and Latino community members carry a greater burden of mortality from Type 2 Diabetes¹⁶⁹. These inequities cannot be explained entirely by health behaviors; rather systemic racism and other persistent forms of systemic oppression like poverty and gender discrimination are also important social determinants to consider.

Smoking also affects infant and child development, for example mothers who smoke are more likely to have low birth weights and pre-term births¹⁷⁰. Based on the 2014 Maternal Health and Child data book (a Multnomah County report), between 2009-2010, 20.2 percent of women under the age of 20 report that they did not abstain from smoking during the last three months of pregnancy, while 18.2 percent of women between the ages of 20 and 24 report continuing to smoke during pregnancy in Multnomah County¹⁷¹.

Figure 6: Percent of mothers who smoke during pregnancy by age and race, Mult. Co 2012-2014



African American, Asian, Pacific Islander, Native American and Alaskan Native communities experience a disparity needing improvement in low birth weight births. Based on data from the Oregon Health Authority among mothers under the age of 24, American Indian and Alaskan Natives have greater risk of prenatal exposure to tobacco outcomes than other groups¹⁷². Adolescents who are White are more at risk of tobacco related prenatal exposure under the age of 20 in Multnomah County than other groups¹⁷³ (see Figure 6).

How Might Tobacco-Related Health Outcomes Change from a T21 Policy?

If a change in sales age to 21 results in reductions in the number of young people who initiate tobacco use – and become addicted to it, then it is likely that the policy will also reduce negative health effects of tobacco use over many decades for all communities. The IOM report on T21 estimates that nationwide a policy changing the sales age to 21 would reduce smoking-related deaths for people born between 2000 and 2019 with the impact increasing over time¹⁷⁴. For example, if the sales age had been changed to 21 in 2015, by 2100 there would be approximately 10 percent less lifetime premature deaths, lung cancer deaths and years of life lost from cigarettes smoking.¹⁷⁵ Further, by 2100 there would be a reduction in low birth weight cases, pre-term birth cases and sudden infant death syndrome cases. Specifically, the report estimates that a T21 policy could lead to the following reductions in mortality over time:

- 8.2-9.9% reduction in deaths by 2080-2099;
- 10.5% reduction in lung cancer deaths by 2080-2099;
- 9.3% reduction in years of life lost by 2080-2099;
- 12.2% reduction in low birth weight cases by 2080-2099;
- 13% reduction in pre-term birth cases by 2080-2099; and
- 18.5% reduction in sudden infant death syndrome (SIDS) cases by 2080-2099 for mothers between the age of 19 and 49¹⁷⁶.

Other researchers find similar results, explaining that T21 would delay youth smoking initiation and reduce youth smoking over time, the main reason for this reduction in negative health outcomes¹⁷⁷.

The IOM report does not describe which communities would benefit specifically from this reduction in health effects over time. For example, the IOM review does not provide estimates based on race or ethnicity. If all young people were equally prevented from purchasing tobacco from T21, the benefits would extend to youth of color and youth experiencing economic hardship. The recent data we have on smoking among young mothers in Multnomah County is limited to smoking and is unclear as to whether mothers under 21 are more likely or less likely to use tobacco than their slightly older peers. Based on these limitations we think it's possible to likely that a sales age change to 21 could decrease maternal adolescent tobacco use and possible to increase fetal and infant health.

Assessment of Social and Economic Health Equity Impacts of Changing the Commercial Tobacco Sales Age to 21

Social health equity is related to addressing historical harms from U.S. government policies and institutional actions experienced by those belonging to a social group outside of the dominant culture¹⁷⁸. These experiences may be due to race, ethnicity, age, disability, or sexual orientation. Communities of color often experience health inequities from perceived discrimination including higher cortisol levels from stress, violence, lack of economic opportunity, and poor mental health.

Pathways to Tobacco Social Acceptability and Racial Profiling

This section of the HEIA centers on social stigma, shame related to use of tobacco, and potential for racial profiling related to enforcement of tobacco laws connected to T21. The HEIA project team is concerned because research shows that racial profiling is happening in the Portland region among adults of color within existing enforcement systems¹⁷⁹ outside of tobacco policies¹⁸⁰. This is already a concern at the state level as legislators opposed an early version of Senate Bill 754, which would raise the sales age of tobacco to 21, that would have allowed teenagers to be stopped for smoking in their car¹⁸¹. Research indicates T21 could reduce the number of younger adolescents with access to commercial tobacco and increase the number of young people who engage in risky behaviors to regain access – putting them at risk of interacting with enforcement officers. Perceptions of racial discrimination and disparities in mental health consequences including stress, anxiety, depression and other health consequences have been studied and documented in multiple communities of color for decades^{182,183,184,185}. Further, racial discrimination is also a predictor of tobacco use¹⁸⁶.

How might a T21 policy affect social acceptability and shame related to tobacco use?

Among surveyed students in Multnomah County, more 11th grade students report viewing smoking tobacco or nicotine products as lower risk and more socially acceptable than 8th grade students (see Table 7)¹⁸⁷. And Multnomah County students currently consider e-cigarettes and vape lower risk than use of cigarettes or smokeless tobacco¹⁸⁸. The responses from youth of color state-wide for these questions are not available from the Oregon Health Authority on its Race Ethnicity brief on tobacco so we do not have a representative sample of youth of color across the state for this question.

Table 7 Multnomah County Youth Responses on Tobacco Related Questions¹⁸⁹

	8th grade	11th grade
There is a moderate, slight risk or no risk of harming themselves physically or in other ways if they smoke one or more packs of cigarettes a day	32.6%	19.7%
There is a moderate, slight or no risk of harming themselves physically or in other ways using smokeless tobacco every day	56.8%	13.8%
Friends would think it is a little bit wrong or not wrong at all to smoke a cigarette.	23%	17.1%
Friends would think it is a little bit wrong or not wrong at all to use vape or e-cigs.	28.6%	48.5%

Little has been examined directly between the relationship of changes to sales ages and social acceptability of tobacco. The Institute of Medicine’s recent literature review on T21 reports that raising the sales age can have an indirect effect on changing what society considers “normal” or “acceptable” for using tobacco¹⁹⁰. However, they predict it would take some time to build and that this impact would be different for youth of different ages. For example they predict that if the sales age increased to 21, the social unacceptability of smoking would be greater for a 16 year old than for a 20 year old¹⁹¹. Based on the Oregon Healthy Teens survey responses in Multnomah County, at the moment more 11th graders seem to consider smoking a cigarette, or a pack of cigarettes more harmful than their 8th grade peers. More 8th graders think that using an e-cigarette or vape is wrong relative to the number of 11th graders thinking the same in Multnomah County. Parental and community expectations about smoking influence social networks and how youth obtain tobacco, possibly by providing opportunities or barriers for social smoking¹⁹².

How might a T21 policy affect youth of color from racial profiling in enforcement?

Data for current stops for tobacco possession are not available from enforcement agencies. We also looked at data within schools where adolescents may be stopped by enforcement officers. Data from Oregon Department of Education (ODE) was inconclusive about frequency that youth are disciplined for tobacco as a first offense, a potential proxy for being stopped. Among all discipline actions between 2010 and 2014 for school districts within Multnomah County, an average of 69 students were disciplined for a tobacco related offense each year¹⁹³. In school, tobacco possession may be added to other offenses such as fighting if for example cigarettes are found among possessions of students who are brought in for other reasons. This may result in more severe discipline measures but there is no way to determine if tobacco is the reason students are disciplined initially based on the current record keeping by school districts and reporting to ODE. The number of students disciplined by race and ethnicity were too small to determine conclusive differences across ethnic or racial identities. Changing the tobacco sales age will not change school district policy and how schools enforce those policies related to youth tobacco possession. It would mean that youth who are 18 and still in school would shift from legally being able to possess commercial tobacco to it being illegal.

In an analysis of the health equity impacts of tobacco retail licensing, consultations with school enforcement officers in Portland school districts shared that they do not currently stop youth for tobacco; they only stop young people if they suspect students are using marijuana. Since marijuana can be mixed with tobacco in hand rolled cigarettes, this may cause some youth to be stopped. This mirrored the reported experiences described by ten interviewed youth in a previous HEIA on TRL, including youth of color between the ages of 18 and 25. Of the ten, eight reported they had never witnessed enforcement officers stopping other youth in relation to tobacco possession. Eight

also reported that police or transit officers in the Multnomah County or Portland areas had never stopped them for tobacco¹⁹⁴. Two youth mentioned they had been stopped because enforcement officers suspected marijuana use¹⁹⁵. Two youth mentioned that they see enforcement officers checking other youth for marijuana¹⁹⁶. One youth reported frequently seeing enforcement officers stopping other youth for tobacco. Current data on stops/fining for youth of color for tobacco is unavailable and not tracked by city police bureaus or transit officers.

In the focus groups conducted for this HEIA, all of the youth believed that T21 (if passed) would increase their risk of being racially profiled and harassed by law enforcement. They believed that this law will give police officers specific justification to stop them; increasing their risk that this encounter could lead to being searched, harassed, and made to feel targeted. Five participants shared that they already have had experiences, or know of friends with similar experiences, of being stopped by police officers because they were smoking or hanging out as a group – even though it was not illegal for them to be smoking. At least two of the participants identified that they had felt harassed by police in the past, even when they were not engaging in any illegal activity.

The youth expressed their deep concern about racial profiling due to the new T21 policy. Many explained that they or their friends experience racial profiling, and this experience and potential for the experience is stressful. They also explained that they are concerned the T21 policy will give law enforcement more opportunities to target them, even if such treatment is only guided by implicit bias and/or suspicion. For example one of the young men explained that when he is out walking with his friends, and if there is more than one – a group – then as he suggests “the police think we a gang” and thus they perceive the police officers consider them as “guilty” and to “not be trusted”. In support of this perspective, one youth shared the following “We are not talking about fighting, we are just talking about smoking and going to play basketball or something. Police drive by us, they see us smoking -- boom, at least one of us of the four or the five, one of us is going to have something illegal on them. I don't know why it is always like that, but that is just the way it is. Now he is at risk of going to jail. No one did anything for the police to even come over and bother us, but they did and those guys [police officers] want to harass us.” Another explained “the cops would come up to me and immediately ask to search me. Cops would antagonize me.” Two other participants agreed with these comments and suggested they believed with T21 there would be more racial profiling of youth of color.

Focus group participants noted that smoking cigarettes is a form of perceived stress relief, and that the T21 policy will likely cause them to feel more anxiety about their safety with regard to law enforcement and other social stigma; and subsequently may result in them smoking to cope with this new level of stress.

Literature on the impacts of minors in possession (MIP) laws indicate that differential enforcement of the law may occur, with minority youth more likely than their white peers to receive an MIP citation¹⁹⁷. Oregon currently has minors in possession laws on the books, where youth who have tobacco can be fined \$90 or ordered to participate in a tobacco education program, a tobacco use cessation program, or perform community service related to diseases associated with consumption of tobacco products (a Class D violation, ORS 167.401). MIP laws are controversial and have been ineffective in reducing youth tobacco use; one study found that this might be because young people who are cited are addicted to tobacco¹⁹⁸. One set of researchers argues that these laws may

shift policy attention away from effective tobacco control strategies and reduce the tobacco industry from being held responsible for marketing practices that target young people¹⁹⁹.

In consultations with two other jurisdictions in the US that passed a law changing the legal tobacco sales age to 21, agency staff in Chicago and New York City reported no concern among communities (Personal Communications, Jennifer Herd in Chicago, February 21, 2017; Kevin R.J. Schroth, Esq. January 27, 2017 in New York). In California, the state put a T21 policy in place while also removing the existing minor in youth possession law to prevent this from being a concern after the NAACP²⁰⁰ brought up racial profiling as an issue (Personal Communication, Richard Kwong, January 20, 2017, California Tobacco Control Program).

Pathways to Commercial Tobacco and Nicotine Product Sales

This section focuses on the impact of T21 on small retailers that sell commercial tobacco and nicotine products and provides insight about how a T21 policy could impact excise tax funds collected from such sales. Funds from commercial excise tobacco taxes are paid to the state. Questions about the economic impact of T21 were a difficult issue to explore with youth in focus groups. This may be because many of the youth are disadvantaged and do not have funds on a regular basis to purchase tobacco products; perhaps they access these products through a multiple of avenues that the economic impact seems less important to them. This issue requires further consideration.

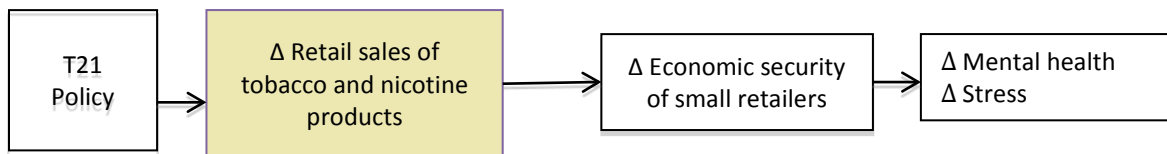


Figure 6: Pathways from T21 to economic security of small retailers

What are the potential impacts to small retailers from T21?

There is very little literature about the amount of sales of tobacco and nicotine products to people under the age of 20. What exists provides only estimates of the amount of sales for those between the ages of 18 and 20 without estimates for those who are under 18. Very little research, of medium to high quality, indicates that while it is certain that tobacco sales will drop from increasing the sales age from 18 to 21. One research paper estimated 2% of current sales are from 18-20 year olds²⁰¹ and another estimate was 3.7%²⁰². Based on these estimates, the predicted size of that impact is relatively small. Each retailer will have their own threshold of what they consider a strong impact or not. This is why the impact is uncertain.

We do not have data on small retailer demographics because size of retailer either by square footage of a location or volume of sales of tobacco and nicotine products is not collected or available. We also do not have information about stress among retailers although in the HEIA on TRL several retailers expressed that tobacco sales affects other items - but they did not discuss underage sales or what would happen if the age limit was changed from 18 to 21²⁰³.

What are the potential impacts to Commercial Tobacco Related Taxes from T21?

Like most states, Oregon collects an excise tax on sales of tobacco products. While we are certain there will be a small loss in sales and in related excise tax revenue from either a county-level or state level T21 policy based on less young people purchasing commercial tobacco, we cannot quantify the loss of revenue from excise tax or to small retailers in Multnomah County from a T21 policy.

If the state of Oregon were to pass a T21 policy, using the higher 3.7% estimate applied to Oregon's 2014 excise tax revenue of \$257.6M indicates that raising the sales age to 21 across Oregon would result in a 0.44% reduction, or \$1.13 Million in excise tax revenue. In 2014, 2%, or \$7.4M of Oregon's tobacco product excise taxes went back to Oregon counties general budgets, spread across all counties in the state. The funds are not allocated for tobacco prevention in Multnomah County. Further information is needed to understand what share of funds goes to Multnomah County and what services the County provides with those funds.

In other locations that have debated raising the sales age to 21, advocates often have a calculation of an expected cost savings. This is beyond the capacity of this HEIA project team. However, one article that motivated the Kansas City Chamber of Commerce to support T21, indicates that employers pay a higher price in lost labor and/or medical costs for employees who smoke – an estimate of \$5816 in “excess” costs²⁰⁴.

Predicted Health, Economic, and Social Equity Impacts of T21: Recommendations, Discussion, Limitations, and Conclusions

Achieving health equity is a priority of impacted communities and public health. Addressing upstream factors, including health policy, is recognized as an effective approach to address factors that contribute to health risk and poor health outcomes. Public health policies and programming are beneficial when they are designed with input from community, and consider ways to promote health through cultural connections. Policies can protect and create conditions to connect communities to cultural practice and traditions.

This HEIA determines that a T21 policy has a mix of positive, negative and uncertain health equity impacts, described further in the two subsequent sections. Tables 8 and 9 on the following pages summarize the potential health equity impacts based on considering the current conditions data and a review of the literature. For context of those findings, it is important to acknowledge that literature indicates sales age policies are only effective if a strongly enforced commercial retail (tobacco retail licensing) system is in place that holds retailers accountable for sales to minors^{205,206,207,208,209,210}. For example, in a review of studies, researchers found that giving retailers information was less effective in reducing illegal sales than active enforcement and/or multicomponent educational strategies²¹¹. The reviewers further concluded that legislation alone is not sufficient to prevent tobacco sales to minors²¹². Both enforcement and community policies improve compliance by retailers, but the impact on underage smoking prevalence using these approaches alone may be small if the level of compliance attained does not sufficiently restrict access²¹³. If the state of Oregon changes the sales age from 18 to 21 without also passing a Tobacco

Retail Licensing (TRL) policy with which to ensure retailers follow it, a state level policy will be ineffective in areas without a local TRL in place.

There are many limitations in this HEIA. First, a Health Equity Impact Assessment makes qualitative estimates of health effects based on the reviewed evidence. In the case of T21, we were unable to answer some questions due to unavailable or limited data. As of the writing of this HEIA, there is limited information about the short term impacts of the passage of T21 in the states of Hawaii and California, and research that specifically considers the impact of T21 on youth of color is thin. This report used Senate Bill 754 as a launching point to examine the potential impact of a similar policy on youth of color in Multnomah County. A limitation in this analysis is that if a different version of the state, or County level policy, with other language, is passed some of the content in this report may no longer apply.

Summary of Health Equity Impacts of Changing the Commercial Tobacco Sales Age to 21

In the positive, there is consistent information that a T21 policy is likely to reduce youth access, initiation and use of commercial tobacco and nicotine products, especially for youth age 15-17. It is likely that youth, including youth of color, will have a more difficult time obtaining tobacco from peers under the age of 21 if T21 is implemented based on the current conditions and the literature. However, information from the focus groups and current data about where Oregon youth obtain tobacco, it is unlikely that T21 will prevent youth from accessing tobacco and nicotine products from family members and friends over the age of 21. Moreover, it is likely that without specific consideration, underage youth that have an existing relationship with retailers where they purchase tobacco and nicotine products (prior to a T21 policy) may continue to use this access point, unless new provisions are implemented to promote adherence to the new minimum age requirement for such purchases. If retailers are no longer allowed to hire clerks between the ages of 18 and 20, this will further reduce the ability of youth to obtain products from retailers as youth may develop relationships with people they know – their peers -- who work in the stores. Currently, very few (1%) of youth in 8th and 11th grades report a risky behavior, “taking without permission” in relation to how they access tobacco products. We currently do not have enough information to predict the potential for risky behaviors, such as stealing, among youth ages 18-20 if T21 is passed.

As described earlier in the report, the African American, Native American communities have a history of being targeted by the tobacco industry in the form of promotions, pricing and in urban areas, the concentration of retail outlets – relating to current inequities in tobacco use in populations of color compared to their white peers. It is possible that youth of color may not benefit as extensively from a T21 policy if further supports are not implemented²¹⁴, and the current levels of tobacco availability from family members and friends over age 21. It is likely that Native American youth access to commercial tobacco will affect youth’s ability to use it in ceremonies. Other supports will be needed to ensure youth have affordable, accessible sources of plants for sacred uses.

Some studies indicate that some youth of color will benefit from reduced access, especially those who primarily obtain tobacco from peers under the age of 18. Although literature does not show what the actual age of initiation will change to, strong evidence shows that youth will initiate using tobacco products at an older age if a T21 policy is in place, with the strongest impact on

adolescents ages 15 to 17. This in turn can result in life-time reductions in tobacco and nicotine-related illness and mortality, although the declines will take nearly 65 years to begin seeing health outcome changes and the Institute of Medicine did not apply those predictions based on race and ethnicity.

Most research did not differentiate clearly between the impacts on white youth and youth of color, and even fewer considered impact on youth of color specifically. The IOM T21 report indicated that a T21 policy is unlikely to reduce initiation of tobacco for those who begin regular use of commercial tobacco and nicotine before the age of 15 because of other contributing factors to that condition²¹⁵. A T21 policy will also have negative impacts on youth who are currently addicted to nicotine between the ages of 18 and 20 because the policy will not be accompanied by an increase in tobacco cessation programming. It is unclear if youth from all ethnic and racial backgrounds would equally benefit without additional tobacco cessation supports and prevention supports, especially supports that are culturally tailored and/or culturally informed. While it is possible for T21 to prevent new young people from initiating use, the existing disparities in tobacco use currently among youth will not change in a meaningful way (and as intended with T21) without tobacco cessation supports that are specifically designed and implemented for youth that are disproportionately impacted by persistent tobacco-related disparities. African American, Native American and Alaskan Native youth, LGBTQI2 youth, youth, and youth experiencing economic hardship would benefit from additional tobacco cessation supports from culturally specific organizations. Based on these findings a T21 policy may not reduce existing health inequities, and may add to existing ones, for people of color or those most impacted as it relates to tobacco and nicotine use. Because of this potential, this HEIA provides a series of policy and program recommendations to prevent any worsening inequities in the next sections.

Table 8 describes the predicted impacts that changing the sales of commercial tobacco to 21 could have on youth tobacco access and related health equity outcomes. This summary table is based on examining the current conditions, the research literature on each topic, and the potential interactions between the policy and these factors.

Table 8: Summary of Tobacco Access Health Equity Impacts of T21 Policy²¹⁶

Health Determinant or Health Outcome	Direction of Impact	Most Impacted & Most Vulnerable Groups	Likelihood	Equity Harms or Benefits
Potential Tobacco Access Health Equity Impacts of T21 Policy				
Youth obtain commercial tobacco & nicotine products from other youth under age 18	Decrease	Adolescents will not easily be able to get tobacco from peers under the age of 18 if T21 is passed. Youth of color, youth experiencing economic hardship	Likely	Benefits
Youth obtain commercial tobacco	It is uncertain what impact T21 will have on an adolescent’s ability to get tobacco and nicotine products from those over age 18. Evidence is mixed – some youth may have a decline in access and others might have no change.			

Health Determinant or Health Outcome	Direction of Impact	Most Impacted & Most Vulnerable Groups	Likelihood	Equity Harms or Benefits
& nicotine products from youth over age 18 and from family members	Uncertain, no change, to Decrease	Youth of color, youth experiencing economic hardship	Possible	Uncertain
Youth obtain commercial tobacco & nicotine products from retailers	Since T21 is implemented in conjunction with a tobacco retail licensing policy where sale age limits are enforced in Multnomah County, T21 will likely further reduce retailer sales to youth as new information is provided.			
	Decrease	Youth of color, youth experiencing economic hardship	Likely	Benefits
Initiation age of commercial tobacco and nicotine product use	Passing a T21 policy will likely reduce the age that youth begin using tobacco. However, African American, Native American and Alaskan Native youth may not benefit equally without additional supports			
	Decrease	Youth of color Youth experiencing economic hardship Youth under age 15	Likely	Benefit Potential Harm if African American, Native American and Alaskan Native youth under age 15 are not supported
Commercial tobacco & nicotine product use	A T21 policy would possibly, to likely, decrease adolescent tobacco and nicotine product use, although not for all youth of color equally.			
	Decrease	Youth of color, youth experiencing economic hardship	Possible to Likely	Mixed
Commercial tobacco cessation supports	Changing the sales age for tobacco and nicotine will not sufficiently address youth tobacco cessation needs of those who are currently addicted to nicotine.			
	No change	Youth experiencing economic hardship, youth of color, youth addicted to nicotine	Likely to Certain	Mixed – Youth who are already in cessation programming will benefit Youth who cannot access tobacco cessation programming will not benefit.
	Changing the sales age of tobacco to 21 would likely reduce maternal teen tobacco use and potentially improve pre-conception health.			

Health Determinant or Health Outcome	Direction of Impact	Most Impacted & Most Vulnerable Groups	Likelihood	Equity Harms or Benefits
Maternal teen commercial tobacco use	Decrease	Youth mothers, infants, youth mothers experiencing economic hardship, youth mothers of color	Possible to Likely	Benefit
Fetal and infant health	Changing the sales age of tobacco to 21 would likely increase fetal and infant health from a reduction in maternal tobacco use and/or second hand smoke.			
	Increase	Infants	Possible to Likely	Benefit
Commercial tobacco and nicotine related illness across all Multnomah County populations	It is possible likely that a T21 policy would reduce smoking related illness over many decades of time because the overall number of people who begin using tobacco and nicotine at an early age would be reduced.			
	Decrease	Youth, youth of color, economically disadvantaged youth	Possible to Likely	Benefit
<p>Likelihood – how likely health impacts are to occur based on the evidence.</p> <ul style="list-style-type: none"> • Unlikely: Logically implausible effect; substantial evidence against mechanism of effect • Possible: Logically plausible effect with limited or uncertain supporting evidence • Likely: Logically plausible effect with substantial and consistent supporting evidence and substantial uncertainties • Very Likely/Certain: Adequate evidence for a causal and generalizable effect • Insufficient Evidence or Not Evaluated <p>Most impacted & most vulnerable groups - those that will be affected either most positively or negatively; level or severity of impact is included with the following definitions:</p> <ul style="list-style-type: none"> • Low: Acute, short term effects with limited and reversible effects on function, well-being, or livelihood that are tolerable or entirely manageable within the capacity of the community health system • Medium: Acute, chronic, or permanent effects that substantially affect function, well-being, or livelihood but are largely manageable within the capacity of the community health system; OR Acute, short-term effects on function, well-being, or livelihood that are not manageable within the capacity of the community health system • High: Acute, chronic, or permanent effects that are potentially disabling or life- threatening, regardless of community health system manageability; OR Effects that impair the development of children or harm future generations. <p>Harms = Disproportionate harms: The decision will result in disproportionate adverse effects to populations defined by demographics, culture, or geography</p> <p>Benefits = Disproportionate benefits: The decision will result in disproportionate beneficial effects to populations defined by demographics, culture, or geography</p> <p>Restorative = Restorative equity effects: The decision will reverse or undo existing or historical inequitable health-relevant conditions or health disparities</p> <p>Uncertain= Need further information (Human Impact Partners)</p>				

Summary of Social and Economic Equity Impacts of Changing the Commercial Tobacco Sales Age to 21

This HEIA predicts that it’s possible to likely that a T21 policy might increase youth of color stress from racial profiling due to the potential of increased tobacco-related stops for youth ages 18-20 if Oregon’s minor in possession law is not repealed. This prediction is based on current conditions data that adults of color are experiencing racial profiling in relation to enforcement officers and

existing research showing that Minors in Youth Possession laws have resulted in youth of color being more likely to receive an MIP citation in other locations in the U.S. Further, a Multnomah County level policy would not be able to repeal Oregon’s existing tobacco in possession laws affecting youth as these are established in state law.

We do not know what would shift about training for enforcement officers, state or county staff in relation to T21. It is possible state revenue from tobacco related sales may fall a small amount from changing the sales age to 21. It is possible small retailers will lose some sales based on a possible decline of 2% of customers who are under the age of 21.

Table 9: Predicted Social and Economic Health Equity Impacts of T21²¹⁷

<u>Health Determinant or Health Outcome</u>	<u>Direction of Impact</u>	<u>Most Impacted & Most Vulnerable Groups</u>	<u>Likelihood</u>	<u>Equity Harms or Benefits</u>
Potential Tobacco Social and Economic Equity Impacts of T21 Policy				
Youth perspective from society is that tobacco is risky and unacceptable	It is possible that T21 could make using tobacco or nicotine products less socially acceptable over time; although this would affect youth based on their age differently.			
	Increase	Youth, youth of color, youth experiencing economic hardship - Likely affect younger teens the most	Possible to likely	Mixed
Potential for racial profiling of youth age 18 to 20 related to tobacco use or possession	If T21 passes and there is no removal of minors in possession laws for tobacco, youth of color may be stopped for tobacco possession.			
	No change to increase	Youth, youth of color, youth experiencing economic hardship, LGBTQ2 youth; could be low to high impact depending on supports available	Possible to likely if T21 does not also remove minor in youth possession law	Harms
Potential youth stress from perceived racial profiling	If T21 leads to more youth of color being stopped for tobacco use this could lead to an increase in stress.			
	Increase	Youth, youth of color, youth experiencing economic hardship, LGBTQ2 youth; could be low to high impact depending on supports available	Possible to likely if T21 does not remove minor in youth possession law	Harms
Retailer sales of tobacco products	A small reduction in tobacco sales will result from T21. This loss of to 18-20 year olds, may negatively affect smaller retailers (who sell less than 10,000 in tobacco products a year) more than mid to large sized retailers.			
	Small Decrease	Small retailers, retailers of color - Lower impact for larger retailers	Certain	Uncertain

<u>Health Determinant or Health Outcome</u>	<u>Direction of Impact</u>	<u>Most Impacted & Most Vulnerable Groups</u>	<u>Likelihood</u>	<u>Equity Harms or Benefits</u>
		Medium impact for small retailers		
Oregon tobacco tax from tobacco product sales in Multnomah County	Reduced sales of tobacco will mean a small reduction in the amount of taxes Oregon collects on tobacco, creating a smaller pool of general funds from tobacco to support tobacco cessation or prevention within counties across Oregon.			
	Small Decrease	People experiencing economic hardship, people of color - low impact	Certain	Uncertain
<p>Likelihood – how likely health impacts are to occur based on the evidence.</p> <ul style="list-style-type: none"> ● Unlikely: Logically implausible effect; substantial evidence against mechanism of effect ● Possible: Logically plausible effect with limited or uncertain supporting evidence ● Likely: Logically plausible effect with substantial and consistent supporting evidence and substantial uncertainties ● Very Likely/Certain: Adequate evidence for a causal and generalizable effect ● Insufficient Evidence or Not Evaluated <p>Most impacted & most vulnerable groups - those that will be affected either most positively or negatively; level or severity of impact is included with the following definitions:</p> <ul style="list-style-type: none"> ● Low: Acute, short term effects with limited and reversible effects on function, well-being, or livelihood that are tolerable or entirely manageable within the capacity of the community health system ● Medium: Acute, chronic, or permanent effects that substantially affect function, well-being, or livelihood but are largely manageable within the capacity of the community health system; OR Acute, short-term effects on function, well-being, or livelihood that are not manageable within the capacity of the community health system ● High: Acute, chronic, or permanent effects that are potentially disabling or life- threatening, regardless of community health system manageability; OR Effects that impair the development of children or harm future generations. <p>Equity Harms or Benefits:</p> <ul style="list-style-type: none"> ● Harms = Disproportionate harms: The decision will result in disproportionate adverse effects to populations defined by demographics, culture, or geography ● Benefits = Disproportionate benefits: The decision will result in disproportionate beneficial effects to populations defined by demographics, culture, or geography ● Restorative = Restorative equity effects: The decision will reverse or undo existing or historical inequitable health-relevant conditions or health disparities ● Uncertain= Need further information (Human Impact Partners) 				

T21 Policy: Recommendations to Maximize Prevention and Health Benefits and Reduce Unintended Harm for Youth of Color

The following recommendations are based on the information from a synthesis of the literature and focus groups completed among youth and specifically for this project. The first set of recommendations suggests considerations in policy language and components if T21 is passed. Engaging community, and drawing on community expertise and knowledge results in policy making that considers the values, needs and experiences of those impacted. In part, the effectiveness of policies depend on their ability to address and meet the needs of the very communities for which they are intended. The second set of recommendations suggests programming and practices related to tobacco prevention and reduction using a racial equity perspective. As Multnomah County’s Equity and Empowerment Lens reminds us, institutionalizing equity and racial justice within our organizations requires that we recognize how our policies, procedures, and practices can perpetuate forms of oppression that are both hidden and overt, and both old and new²¹⁸.

Policy Recommendations to Reduce Unintended Harm

1. Develop and implement a three year structured phase-in period where the sales age is shifted from 18 to 19 in year 1, then to 20 in year 2 and then to 21 in year three, similar to the process used in Needham, MA which had documented health outcomes over time²¹⁹.
2. Remove Oregon's existing Minor in Possession (MIP) laws.
3. Protect youth from being penalized for possessing or using tobacco, including ensuring safe, legal access to ceremonial tobacco for AI/ AN youths.
4. Remove, or do not include, provisions to youth being stopped, searched or having items in their possession seized from any proposed T21 policy to align with recommendation number two listed above.
5. Include community members in developing rules in the T21 rule making processes, where at least 1/3 of participants are representatives of communities experiencing inequitable tobacco-related illnesses.
6. Develop and implement a six-month policy phase-in program to inform retailers of changes in the minimum legal sales age for tobacco and nicotine products.
7. Monitor and report by age, self-reported race/ethnicity, zip code and disciplinary action/lack of action related to encounters between youth and enforcement (e.g., police and schools) based on use of and possessing tobacco and nicotine products.

Program Recommendations to Maximize Health

1. Fund community partners to develop sustainable, culturally and trauma-informed specific tobacco and nicotine products **cessation programs and prevention programs for youth of color and communities experiencing disproportionate tobacco-related inequities.**
2. Fund community partners to develop sustainable, culturally specific and trauma-informed tobacco and other nicotine products **cessation and prevention programs for pregnant women and families that address substance exposed pregnancies and improve healthy birth outcomes.**
3. Fund community partners to support and protect Native community connections to ceremonial tobacco necessary for traditional cultural practice, knowledge, and healthy communities and future generations.
4. Implement tobacco cessation and prevention programming and criteria for funding decisions and policy making that are culturally responsive, trauma -informed, equitable, and consider the social determinants of health.
5. Engage community members, youth, and families in developing and leading tobacco and nicotine prevention and cessation programs.
6. Conduct research to better understand potential associations, harmful and beneficial, between tobacco use and substance use recovery, especially among communities experiencing tobacco related inequities.
7. If T21 is passed, monitor the ongoing impacts to youth of color to ensure health inequities do not worsen.

HEIA Evaluation and Monitoring

This report is the result of a collaborative effort to explore potential health equity impacts of changing the minimum legal age limit of commercial tobacco products to 21 on youth of color in Multnomah County. One lead author plans to return to convened NAYA staff, OHEA members, and youth focus group participants with a description of the findings and recommendations from this report so they understand how their input was used. Multnomah County staff will monitor the impact of the HEIA on the T21 policy making process as part of the larger evaluation on the SPARC grant. This project went through several challenges with team members being unable to continue working on the project related to organizational closures, organizational staff transitions and shifts in the policy context, impacting the timing of the report. Given inadequate staffing and funding, the HEIA team will not be able to conduct a process evaluation of the HEIA.

See Appendix 1 for a description of how this HEIA met the minimum elements of a health impact assessment and incorporated a specific health equity focus.

Appendix 1: HEIA Practitioner Appendix

Health Equity Impact Assessment on Changing the Sales Age of Tobacco Sales to 21

Title: Oregon Tobacco 21 (T21) Health Equity Impact Assessment

Timeline: HEIA screened in March of 2016; reporting completed by June 2017

Geographic Focus: Multnomah County, Oregon

Funding: This project was supported from a Strategies for Policy and Environmental Change (SPArC) – Tobacco Free grant to Multnomah County Health Department from the Oregon Health Authority. This report does not necessarily reflect the views of funders or HEIA participants unless attribution is provided. This report is intended for educational and informative purposes. Any mention of companies, policies, individuals, or organizations are included to advance information purposes and do not constitute an endorsement or sponsorship.

Sector(s): Business Licensing, public health, tobacco, health disparities

HIA type: Decision support, intermediate scope

Overview

This Appendix discussed the methods and process used in this Health Equity Impact Assessment (HEIA). The name “Health Equity Impact Assessment,” encompasses the use of Health Impact Assessment (HIA) methods combined with a race and ethnicity focused lens to conduct each stage of the HIA. This appendix describes how this HEIA meets the Minimum Elements of HIA established by the North American HIA Practice Standards Working Group of the Society of Practitioners of HIA (SOPHIA)²²⁰.

This project analyzed potential health equity impacts of a county level policy to change the sales age of commercial tobacco from 18 to 21 following the six steps of a Health Impact Assessment (see figure 1).

A: Screening and Decision Context

The screening phase of an HIA or HEIA is the step to determine the need and value that conducting an HEIA could have on the decision making process of a proposal. Before the HEIA, Multnomah County Commissioners publicly discussed a desire to pass a T21 policy at the county level if the state of Oregon did not bring one forward. County commissioners had utilized a prior HEIA on Tobacco Retail Licensing policy in 2015 indicating receptivity to community input on a decision making process. An existing T21 policy was not introduced in Multnomah County during the duration of the HEIA however several policies were introduced at the state legislature that could be used to guide the HEIA project. An HEIA requires a draft proposal to determine what direct, intermediate and long term impacts could evolve from the policy.

What led to the decision to conduct an HEIA on T21?

Figure 1: HIA Steps

1. **SCREENING** determines the need for and value of an HIA.
2. **SCOPING** develops a plan and timeline for the HIA that defines research questions, health outcomes and vulnerable populations.
3. **ASSESSMENT** involves using existing data, expertise and experience to profile existing conditions, evaluate the direction and magnitude of potential health impacts, and make policy recommendations.
4. **RECOMMENDATIONS** advocate in the most effective way possible actions that will improve health outcomes of the policy.
5. **REPORTING** communicates the HIA findings and recommendations.
6. **MONITORING AND EVALUATION** tracks the impact of the HIA on the decision making process.

The state and county decision makers were already aware of the general public health benefits raising the sales age of tobacco to 21 could have based on prior health briefings and hearings related to tobacco retail licensing in 2015 and 2016. What was less clear is if the health benefits would be equitable and if there was potential for negative consequences. The Oregon Health Equity Alliance is Members of the Oregon Health Equity Alliance, while wanting to support policies that reduce tobacco use for health benefits, were concerned about the potential negative impacts a T21 policy might have on youth of color. Specific concerns included unequal benefits from the policy that could increase existing health disparities in tobacco use, for example if youth of color did not benefit in the same way as white youth in reduced access or older age of initiation. Additionally, Oregon has minors in youth possession laws on its books, and, while these are not reportedly enforced, culturally specific organizations did not want the potential for these existing laws to be a basis for arrests of young people of color, particularly those between the ages of 18 and 20 who would no longer be legally allowed to purchase tobacco.

Further, one culturally specific organization, the Native American Youth and Family Services, was asked by OHEA to take lead by contributing specifically to informing this policy process. Advocates often cite high tobacco use in Native American communities as rationale for policies to reduce tobacco use, without including Native community members in those discussions.

B: HEIA Scope

A scope in an HEIA determines who conducts the assessment, sets goals for the process, develops a plan for completing the HEIA that includes a series of assessment questions for the health equity impact analysis, and a plan for disseminating findings and recommendations²²¹. The HEIA project team was comprised of members of the Oregon Health Equity Alliance with staff from the Native American Youth and Family Services and Upstream Public Health taking lead on the analysis. Multnomah County staff also contributed to the scoping and assessment phases of the HEIA through collecting data and literature.

In the late summer of 2016, the HEIA project team held a day-long HEIA training with NAYA staff, Multnomah County staff, and community members that covered the process for completing an HEIA, background on the T21 policy, and current data on tobacco use in Multnomah County. The fourteen participants of the day-long training developed a draft HEIA scope of assessment questions and a set of potential pathways that could reasonably link the T21 policy to direct, indirect and long term health equity outcomes. Following creating the initial scope pathways and assessment questions, the HEIA team revised the set of questions, added current condition questions, and refined the pathway diagrams. The HEIA team asked additional members of NAYA, Multnomah County staff, and OHEA members to rank the set of health equity impact questions based on two prioritization criteria:

1. which questions examine the impact on the most burdened and vulnerable community members?
2. which questions can the HEIA team answer from existing data (i.e. literature, secondary data, focus groups)?

The HEIA team members ranked each question as low, med or high priority in a web-based survey through Survey Monkey. The project leads then refined the scope from this ranking process.

The HEIA project team gathered additional input on the draft low, medium and high priority assessment questions and the pathway diagrams (the working scope) from staff of other OHEA

member organizations including the Urban League of Portland, Unite Oregon, the Oregon Latino Health Coalition and the Asian Health Services Center. OHEA member organization staff confirmed the questions were important to ask. Further, they expressed concern that the questions the team would not have capacity to ask in the low priority ranking would be of the highest concern by elected officials and recommended the HEIA team prepare ourselves for that.

In the HEIA scope, the project team determined that based on input from NAYA staff and community members that understanding how changing the sales age for tobacco could affect youth access to tobacco and nicotine through their sources of tobacco was a priority, see Table 1 and figure 2. Most high priority questions emerged from this question of changes in tobacco access. For example, changes in access to tobacco can lead to changes in initiation and ongoing use. This is important because if the age of initiation were shifted to an older age, this could reduce the risk of nicotine addiction as adults. NAYA staff wanted to understand if this positive benefit might differ for youth of color relative to all youth. Because T21 would change tobacco access for a group of youth age 18 to 20 who currently may use tobacco, NAYA staff wanted an understanding of how changing the sales age for tobacco could affect youth tobacco cessation needs if young people can no longer get access to tobacco or nicotine products and have an existing nicotine addiction.

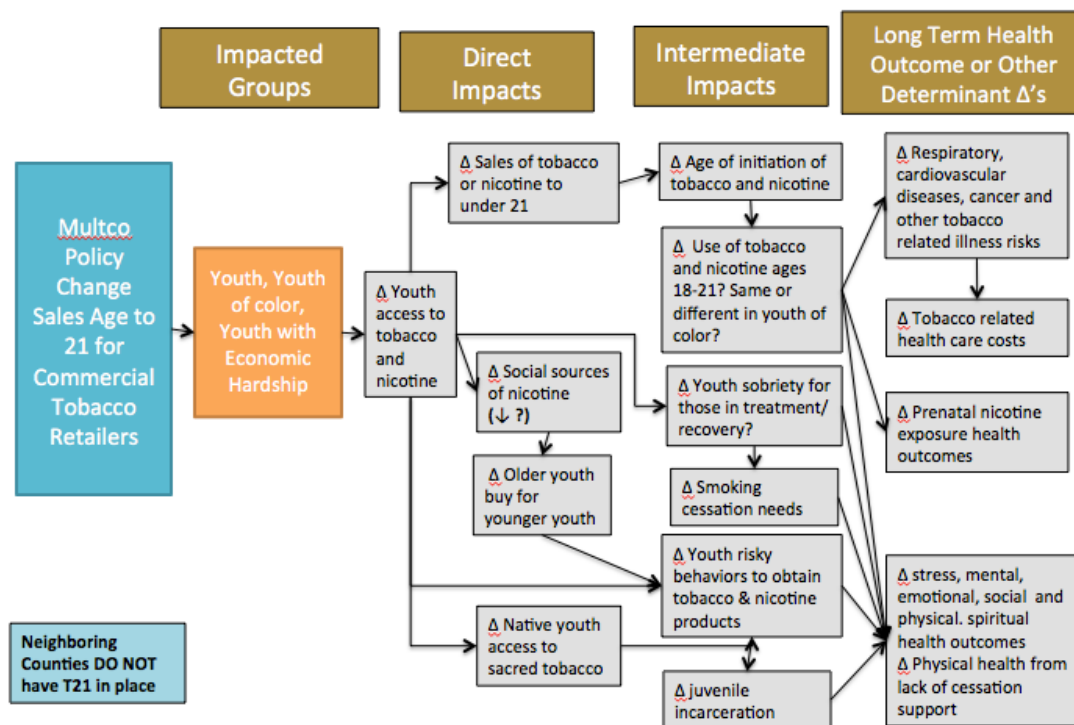
Table 1: High and medium priority T21 HEIA assessment questions

High Priority	Medium Priority
<p>Tobacco Access Health Equity:</p> <ul style="list-style-type: none"> • How will youth access to tobacco and nicotine products change if T21 is passed? • Will T21 change the current percentage of sales to youth under 21? • Will T21 change tobacco and nicotine product use in teens under 21? • What is the impact of T21 on youth of color for tobacco and nicotine product use specifically? • Will T21 equitably change tobacco and nicotine use for all communities • What is the impact of T21 on the age of initiation among youth of color relative to all youth? • Will T21 change the potential for youth risky behaviors to obtain products? <p>Social Equity:</p> <ul style="list-style-type: none"> • Will T21 change profiling or harassment by police or other enforcement officers of youth of color? 	<p>Tobacco Access Health Equity:</p> <ul style="list-style-type: none"> • What impact will T21 have on older youth buying for younger youth? • Will the age of initiation of tobacco use change from T21? • Will access to sacred tobacco for youth 18-21 be an issue to the community - will they lose access? • Will native youth have to travel far distances to get tobacco? • How would tobacco related illness change if T21 were passed for people as they get older? • What are the long-term health benefits of smoking rate changes in passing T21 does it reduce smoking rates equitably across groups? • Will T21 influence rates of prenatal exposure/maternal use/preconception use/second hand smoke exposure to little ones and related health outcomes? • Brain development for youth who do not initiate based on initiation rates • Will T21 impact relapse, sobriety for youth in treatment, recovery? • How would training for retailers change with T21? • Would this increase or decrease stress based on amount of profiling; travel far distances to get tobacco? • Would t21 change societal views of the risk of tobacco---perceived risk as being less or greater <p>Economic Equity:</p> <ul style="list-style-type: none"> • How will raising age requirement impact retail sales of tobacco and nicotine? • What is impact of T21 on sales of tobacco for small retailers

High Priority	Medium Priority
	(small number of sales, but sales of tobacco brings retailers in for other items)?

The project team also wanted to understand how changing the sales age for tobacco could affect long term development of tobacco related illness, see figure 2. Long-term use can lead to tobacco and nicotine related chronic conditions. This is particularly important because it relates to existing disparities in tobacco use. The team wanted to understand if existing disparities would worsen or improve for communities of color who are currently overburdened with tobacco related illness in Multnomah County from T21. HEIA project team determined in the scope that if youth access to nicotine and tobacco products shifted, affecting sources of products and initiation, that it could have a possible impact on prenatal exposure for young mothers who use these products.

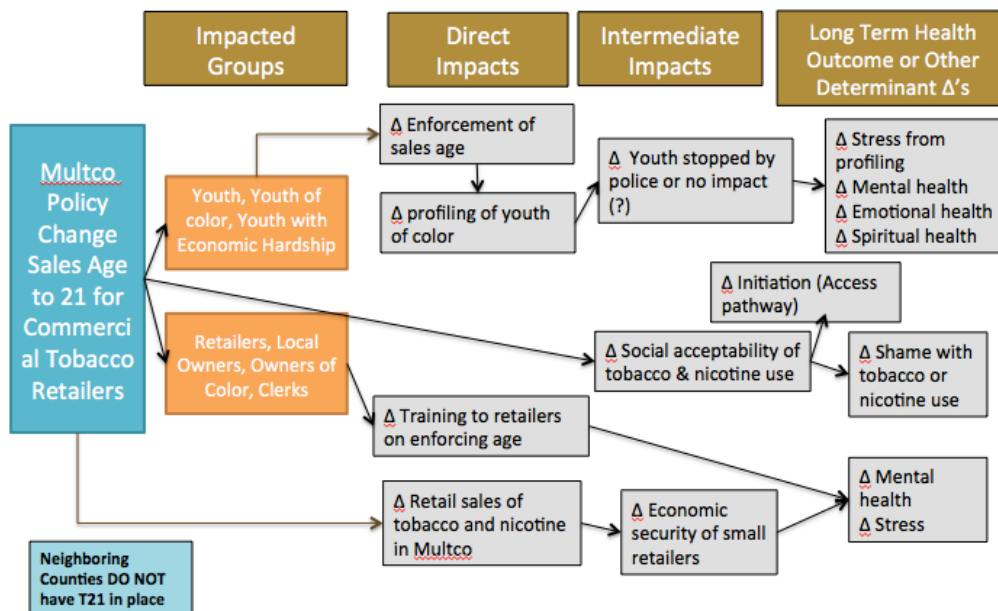
Figure 2: Tobacco Sales Age (T21) Access Draft Pathway Diagram



Changes in the sales age of tobacco and nicotine products might also affect the social acceptability of these products, see figure 3. The concern is about how youth view the perceived risk based on those social norms. This is important from a positive potential if young people determine that the risk is too great and are less likely to start, or continue, using tobacco or nicotine products. It's also important because of potential negative consequences. Staff at NAYA report youth telling them feeling a great deal of shame because they smoke and are unable to quit. Increasing the shame young people feel without providing additional support to help them stop smoking would be an added burden.

Members of the HEIA project team were concerned that changing the sales age from 18 to 21 for tobacco and nicotine products might affect the sales and economic stability of our smallest retailers. In the Tobacco Retail Licensing HEIA, the project team interviewed retailers with small grocery stores who sold tobacco and nicotine items in their product mix. One measure of “small” is when a retailer sells less than \$10,000 of tobacco or nicotine products in a year²²². The tobacco industry has historically fought against raising the sales age²²³. As researchers note, “the tobacco industry’s market expansion historically depended on the industry’s ability to market to young adults, and through them, to younger smokers. The 1986 Philip Morris 5-year plan explained that ‘raising the legal minimum age for cigarette purchaser [sic] to 21 could gut our key young adult market (17–20)’”²²⁴. While we are not able to look specifically at our smallest retailers, we are able to estimate the financial impact to retailers generally based on sales loss in the short term if T21 were to pass.

Figure 2: Tobacco Sales Age (T21) Social and Economic Equity Draft Impact Pathway Diagram



The team removed Low priority questions at the end of the scoping phase to focus limited resources. The team did not pursue the following questions:

- Will T21 be as strong if surrounding counties do not have it?
- Will T21 relate to youth entering different counties to buy tobacco and nicotine products and then have missed school, risk of traffic incidents, or have to travel longer distances?
- Will T21 change the choice of type tobacco or nicotine products youth use?
- Will T21 change adult (over the age of 21) use of tobacco and nicotine products?

- Will T21 affect spending on tobacco inhalant delivery products?
- Will T21 affect the cost of tobacco and nicotine products?
- Will T21 passage in Multnomah County affect sales in nearby counties without this ordinance?
- Will T21 affect where and how young people spend their money?
- Will T21 affect use of marijuana?

C: Assessment Methods and Source(s) of Evidence

C.1 Literature Review Methods

This HIA relied on an integrative²²⁵ review of literature²²⁶. Project team members examined content-specific literature databases for peer reviewed literature and supplemented this with grey literature through searches on PubMed, Google Scholar, through reference lists especially the Washington State Health Impact Review on Tobacco 21 policy, and through backward searching. Inclusion criteria were:

- Direct or indirect answer to assessment question
- Use last decade of literature (2006-2017)
- Focus on US literature

The project team rejected using any articles with serious inconsistencies, imprecise or sparse data, a high probability of reporting bias based on industry funding the research, or other serious study limitations and noted gaps where possible.

The HEIA assessment team conducted literature reviews on impact questions from each of the three health determinant pathways showing in Table 1 and Figures 1 and 2 using an excel spreadsheet to keep track of research question, databases searched, search terms used, relevant articles found, what was kept and why or why not. The project team used different combinations of search terms in Google Scholar first, then in other databases as needed. The project team kept track of documents and shared them with one another. All other context not directly related to an assessment question required a search for existing reviews or recent articles from a trustworthy source (i.e. the US Surgeon General report on youth and tobacco) on the topics.

C.2 Current Conditions Data Methods

For each assessment question, the HEIA team sought current secondary data from reliable sources such as county, state or national surveys. Multiple current conditions questions were unable to be answered given existing data gaps. The following are areas where the project team, often with help from experts at the Multnomah County Health Department, the Oregon Health Authority, and in other states could not find usable information readily available. Most of this was also:

- We were unable to find data on the impact of state-level T21 policies on youth sales, youth use of tobacco or any short-term impact on self reported tobacco use.
- We do not have data on the number of people of color-owned businesses or a way to measure “small” businesses that sell tobacco, described further in the TRL HEIA²²⁷.
- Police and other enforcement officers do not record the number of stops of youth, the reasons for a stop, or the race and ethnicity of those they stop, as described in the TRL HEIA²²⁸.

- The literature on youth of color in relation to T21 and other policies intended to reduce youth access to tobacco was thin.
- We were unable to learn how training for retailers would change based on shifting a sales age from 18 to 21.

There were several Medium priority questions the team was also not able to answer due to lack of data, these included:

- The team was unable to determine the impact on the smallest retailers because Multnomah County does not have a way to identify amount of sales.
- Similarly, we cannot determine how small retailer stress might be impacted by T21.

C3: Youth Focus Groups and Expert Consultations

For the purposes of this particular HEIA, we completed three focus groups with disadvantaged youth of color to explore perspectives, attitudes, and beliefs about the social, economic, and access-related impacts T21 policy might have on them as well as their peers. Additionally, through focus groups we explored how youth frame and distinguish tobacco use (e.g., addiction, ceremony, gifting). The focus group interview protocol was oriented around the Medicine Wheel’s components where youth were asked how tobacco affects them, the interview protocol is available from Dr. Kelly Gonzalez on request. See Table 3 for the overarching themes aligned the three pathways in the HEIA scope.

Youth were recruited through NAYA’s Early College Academy. Sixteen youth participated; fourteen who identify as male and two who identify as female, were between 15 and 22 years of age, and self-identified as Native American, Black, White, and multi-racial. Of those who were current or prior tobacco users, youth reported beginning to use tobacco between the ages of 10 and 16.

Table 3: Themes from focus groups on T21 HEIA

Theme	Question/Intent	Preliminary Finding
Access	To understand the current ways youth access tobacco products, how T21 will either increase or decrease risk related to getting these products (when a smoker its something you need to do everyday)	Many participants indicated that they could access tobacco products fairly easily whether its through friends, family members, or the retailer they know by frequenting the store. They cited that many adults in their lives do not enforce the current smoking law (age 18) and they had doubt that adults or others would be serious about the new policy— they were skeptical.
Social	To understand the implications of T21 across various social domains, including law enforcement (e.g. profiling and how this may occur or does occur); school systems (e.g. disciplinary action, stigmatizing of youth); culturally (e.g. ceremonial, gifting); inter-personal relationships and interactions (shaming, stereotype threat) Perceptions of Tobacco Control efforts	All participants shared that smoking was a way to deal with stress; to decompress and relax from everyday stressors. Many participants believed that the T21 policy was not going to make much of a difference with terms of cessation because they felt the policy did not address more important issues related to what caused them to smoke in the first place. Using this perspective, many participants suggested that the T21 policy was an attempt to change smoking rates, but it didn’t really consider the needs or everyday

Theme	Question/Intent	Preliminary Finding
	(specifically T21) to understand acceptability, if it will influence smoking norms & behaviors, quitting or initiation	<p>experiences of the youth in the first place. This made them upset and frustrated. They also wanted more information about resources that would be available to help current youth-smokers to quit if indeed the policy was implemented. They felt that the policy could be good to prevent the younger generation from beginning to smoke—and they liked the idea of the youth not smoking.</p> <p>Several participants expressed concern about the new policy as justification for law enforcement to stop them – which this was possible and several shared their own experiences of being stopped by police. The groups had in-depth conversation about this issue as it might play out for them, and there was some concern as well as apathy because they feel targeted and stigmatized already by the system.</p>
Economic	In what ways with the new policy impact them financially?	<p>Questions about the economic impact of T21 seemed a more difficult issue to explore with the youth; perhaps it is because many of the youth are disadvantaged and do not have funds on a regular basis to purchase tobacco products; perhaps they access these products through a multiple of avenues that the economic impact seems less important to them. This issue requires further consideration.</p>

In order to understand the degree to which other stakeholders in different jurisdictions have brought up a concern about racial profiling, members of Multnomah County staff contacted jurisdictions that have passed T21 policy at the county and/or state levels. The team started with a list of jurisdictions created by the Campaign for Tobacco Free as of November 16, 2016. The lead analyst identified which jurisdictions also had state Minors in Youth Possession laws in place using Google searches of legislation in each state. From that list, the team selected jurisdictions based on which jurisdictions might have a larger percentage of youth of color impacted by the T21 and MIP policies. An analyst reached out by email and phone to individuals at the Hawaii Department of Health, Chicago, Illinois and California. The team also wanted to select one jurisdiction that does not have an MIP in place that also has an ethnically diverse population, so the team included New York City.

C4: Characterization of Impacts and Development of Recommendations

The analyst team initially judged potential predicted impacts following the Minimum Elements of a Health Impact Assessment²²⁹. The analysts used existing conditions data and the literature review to characterize predicted health equity impacts in this report²³⁰. The lead analyst presented initial findings to the HEIA team based on the existing conditions data and the literature review to get feedback.

The HEIA team developed recommendations based on the synthesis of information including current conditions data, empirical literature and focus group findings. The team structured recommendations to be actionable and relevant specifically to the findings from the HEIA.

D: Reporting and Minimum Elements of HIA

The HEIA team developed a dissemination plan early on in the scoping stage of the HEIA. The HEIA lead and lead analyst wrote the HEIA report and a Community Report for sharing with the public. The HEIA team lead plans to share the findings with relevant stakeholders.

Table 4: How T21 HEIA Met HIA Minimum Elements 2014

HIA Minimum Elements	How Addressed
HIA is conducted to assess the potential health consequences of a proposed program, policy, project, or plan under consideration by decision-makers, and is conducted in advance of the decision in question.	This HEIA took place before Multnomah County or Oregon passed a T21 policy
HIA involves and engages stakeholders affected by the proposal, particularly vulnerable populations.	This HEIA was led by an organization who represents Native American communities in an urban setting, included focus groups of impacted youth and involved staff at NAYA in developing the scope
HIA systematically considers the full range of potential impacts of the proposal on health determinants, health status, and health equity.	The HEIA team developed a scope including pathway diagrams and related assessment questions that explored linkages from T21 through long term health equity outcomes.
HIA provides a profile of existing conditions for the populations affected by the proposal, including their health outcomes, health determinants, and vulnerable sub-groups within the population, relevant to the health issues examined in the HIA.	The HEIA provides a summary of current conditions for those impacted by T21 where feasible, identified vulnerable youth, and the relevant health determinants and health outcomes
HIA characterizes the proposal’s impacts on health, health determinants, and health equity, while documenting data sources and analytic methods, quality of evidence used, methodological assumptions, and limitations.	The HEIA provides a summary of T21’s potential impacts to health, health determinants and health equity and documents data sources and limitations. The HEIA did not retain or utilize low quality evidence and did not rank individual studies by quality based on limited time capacity.
HIA provides recommendations, as needed, on feasible and effective actions to promote the positive health impacts and mitigate the negative health impacts of the decision, identifying, where appropriate, alternatives or modifications to the proposal.	The HEIA provides recommendations to prevent harm and maximize health equity. The recommendations are focused on the T21 policy and on potential programs that could accompany it.
HIA produces a publicly accessible report that includes, at minimum, documentation of the HIA’s purpose, findings, and recommendations, and either documentation of the processes and methods involved, or reference to an external source of documentation for these processes and methods. The report should be shared with decision-makers and other stakeholders.	This document is an Appendix to the T21 HEIA’s report that will be publicly accessible. Further it will have a community report using language that is less technical. The lead author will share both with decision-makers and other stakeholders.
HIA proposes indicators, actions, and responsible parties, where indicated, for a plan to monitor the implementation of recommendations, as well as health effects and outcomes of the proposal.	The HEIA only proposes to monitor the implementation of recommendations given limited capacity and staffing.

E: Evaluation and Monitoring

The lead author plans to return to convened NAYA staff, OHEA members, and youth focus group participants with a description of the findings and recommendations from this report so they

understand how their input was used. Multnomah County staff will monitor the impact of the HEIA on the T21 policy making process as part of the larger evaluation on the SPARC grant. This project went through several challenges with team members being unable to continue working on the project related to organizational closures, organizational staff transitions and shifts in the policy context, impacting the timing of the report. Given inadequate staffing and funding, the HEIA team will not be able to conduct a process evaluation of the HEIA.

Appendix 2: Resources for Quitting Tobacco Use

Phone Based	
Oregon Tobacco Quit Line <ul style="list-style-type: none"> - 24 hours, 7 days a week - 170+ languages - Free services, has a youth protocol if teens call 	1.800.QUIT.NOW (1.800.784.8669) or www.quitnow.net/oregon Spanish Quit Line: 1.855.DEJELO-YA (1.855.335356.92) or www.quitnow.net/oregonsp TTY: 1.877.777.6534
QuitGuide Phone App (National Cancer Institute)	IOS and Adroid available on Apple and Google
Spanish-speakers Phone Counseling (New Mexico Dept of Health)	1-855-Dejelo-Ya
Asian Smokers Quit Line <ul style="list-style-type: none"> - Hours of operation are Monday through Friday from 8am to 9pm, Pacific Time. - Voicemail and recorded messages are available 24 hours a day. 	Chinese (Cantonese and Mandarin): 1-800-838-8917 Korean: 1-800-556-5564 Vietnamese: 1-800-778-8440
SmokeFree Text <ul style="list-style-type: none"> - Free phone text-based cessation program - For teens and young adults (age 13 and up) 	http://smokefree.gov/smokefreetxt
Online	
Become an Ex (American Legacy Foundation)	http://becomeanex.org
You Can Quit Smoking Now (DHHS)	www.smokefree.gov/
Freedom From Smoking (American Lung Association)	www.ffsonline.org
Live Chat with a Quit Counselor (National Cancer Institute)	https://cissecure.nci.nih.gov/livehelp/welcome.asp
TeenQuit - For teen tobacco users	www.teenquit.com
My Last Dip - Smokeless tobacco users	www.mylastdip.com
Ucanquit2 - Military members, families and veterans	www.ucanquit2.org
Community Based	
American Lung Association <ul style="list-style-type: none"> - Standardized curriculum, trained facilitators - Self-help, group program, online options 	www.lungoregon.org/quit/index.html
Nicotine Anonymous - Non-profit, 12-step based program	www.nicotine-anonymous.org
Health Systems	
In 2009, the Oregon Legislature passed Senate Bill 734 requiring private health insurers to offer a tobacco cessation benefit of at least \$500.	Contact your health insurance company to find out what benefits they provide.

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