

2018 Electronic Cigarette Use *Among Youth in Georgia*



Georgia Tobacco Use Prevention Program
dph.ga.gov/tobacco



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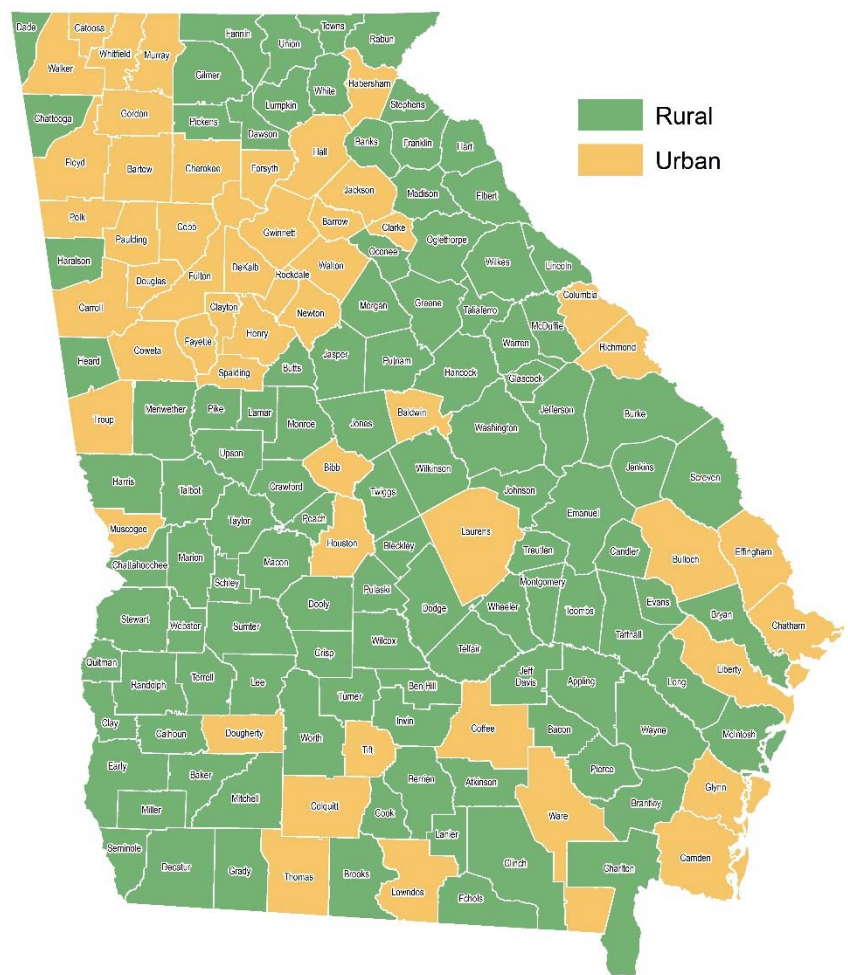
Youth Tobacco Survey

Overview: The Georgia Youth Tobacco Survey (GA-YTS) is a survey conducted in conjunction with the Georgia Youth Risk Behavior Survey (GA-YRBS) in public high schools (HS). The GA-YTS has been conducted every odd year since 2009. The GA-YTS provides comprehensive data about various tobacco-related topics from HS students in the state. In 2017, GA Department of Public Health (DPH) oversampled rural counties so that data can be analyzed by urban/rural geographic distribution. Rural counties were defined as counties with less than or equal to $\leq 35,000$ residents. Georgia had a total of 51 urban counties and 130 rural counties (Map 1). Overall, 40 Georgia public HS (2,614 students) were sampled; of these, 26 were urban (1,373 students) and 14 were rural (1,241 students) public HS. The overall response rate was 68.3%.

Methods: Similar to the GA-YRBS, a two-stage cluster sample design was used to produce a representative sample of students in grades 9-12 in Georgia. In the first stage, HS were selected randomly within the grade range specified with a probability proportional to enrollment size. In the second stage, classes were randomly selected from within the selected HS and all the students within a selected class were surveyed. The GA-YTS data were weighted to adjust for any unequal probabilities of selection, nonresponse, and disproportionate selection of different population groups. Results from the GA-YTS can be used to make inferences about tobacco use risk behaviors among all public HS students in Georgia.

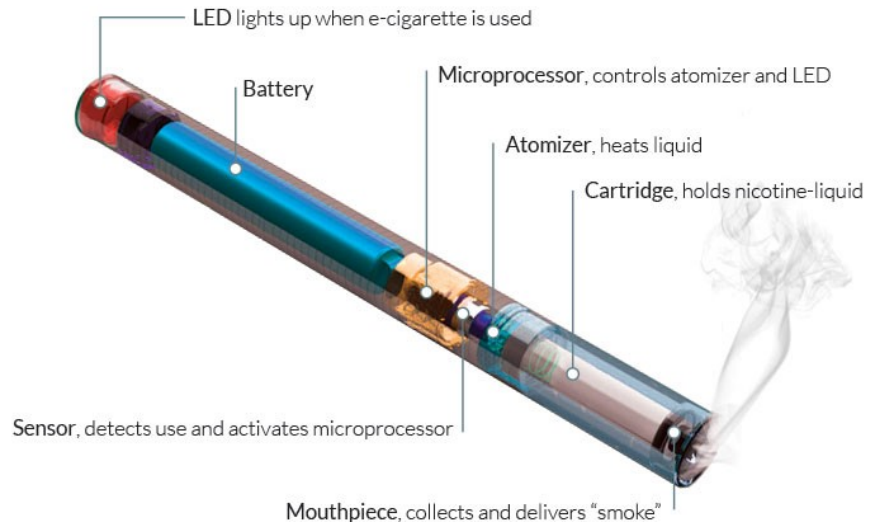
Questionnaire: Topics included, but were not limited to, tobacco use such as cigarettes, cigars, chewing tobacco, hookah, and electronic cigarettes (e-cigarettes), access to tobacco products, smoking cessation, secondhand smoke exposure, knowledge and attitudes about tobacco, social influences for tobacco use, exposure to tobacco products in the media and the internet, diagnosis of asthma, and understanding of 100% tobacco-free school policies.

Map 1. Rural/Urban Counties in Georgia



Definition: What are e-cigarettes^{1, 2}?

- E-cigarettes come in many shapes and sizes. Most have a battery, a heating element, and a place to hold liquid containing nicotine.
- E-cigarettes produce an aerosol by heating a liquid that usually contains nicotine-(the addictive chemicals in regular cigarettes, cigars, and other tobacco products). Users inhale this aerosol into their lungs. Bystanders can also breathe in this aerosol when the user exhales into the air.
- E-cigarettes are known by many different names. They are sometimes called “e-cigs,” “e-hookahs,” “mods,” “vape pens,” “vapes,” “tank systems,” and “electronic nicotine delivery systems (ENDS).”
- Some e-cigarettes are made to look like regular cigarettes, cigars, or pipes. Some resemble pens, USB sticks, and other everyday items. Larger devices such as tank systems, or “mods,” do not resemble other tobacco products.
- Using an e-cigarette is sometimes called “vaping.”
- E-cigarettes can be used to deliver marijuana and other drugs.
- Most e-cigarettes contain nicotine, which has known health effects.
 - ✓ Nicotine is highly addictive.
 - ✓ Nicotine is toxic to developing fetuses.
 - ✓ Nicotine can harm youth brain development, which continues into the early to mid-20s.
 - ✓ Nicotine is a health danger for pregnant women and their developing babies.
- Defective e-cigarette batteries have caused fires and explosions, some of which have resulted in serious injuries. Most explosions happened when the e-cigarette batteries were being charged.
- In addition, acute nicotine exposure can be toxic. Children and adults have been poisoned by swallowing, breathing, or absorbing e-cigarette liquid through their skin or eyes.



Electronic Cigarette Use among HS Students

Electronic cigarette use among youth is now a major public health concern.¹

One in four of Georgia HS students reported that they had ever used e-cigarettes (26.1%; 120,000).

The number of students who tried e-cigarettes, even once or twice, had increased by 66% from 15.7% (72,900) in 2013 to 26.1% (120,000) in 2017.

More male HS students (30.0%; 67,500) said they had ever used e-cigarettes than females (21.3%; 48,500).

Non-Hispanic (NH) White HS students (36.2%; 71,000) were significantly more likely to have ever used e-cigarettes than Hispanic HS students (27.9%; 15,000) and NH Black HS students (12.9%; 21,500) (Figure 1).

Use of e-cigarettes increased with grade level (Figure 2):

- 9th grade (20.0%; 28,000)
- 10th grade (25.2%; 29,500)
- 11th grade (29.8%; 30,500)
- 12th grade (32.2%; 32,000)

One in four HS students (26.1%; 121,500) said they were curious about e-cigarettes. And almost three out of four cigarette users (74.1%; 26,000) were curious about e-cigarettes than non-smokers (22.3%; 94,500).

Current Electronic Cigarette Use

E-cigarettes were more popular among youth than other tobacco types (Figure 3):

- Cigarettes (7.7%; 36,000)
- E-Cigarettes (12.7%; 58,500)
- Cigar, cigarillos, or little cigars such as Black and Milds, Swisher Sweets, Dutch Master, White Owl, or Phillies Blunts, (14.2%; 66,000)
- Smokeless tobacco, chewing tobacco, snuff, or dip such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen (7.9%; 36,300); and, Hookah or Waterpipe (4.7%; 21,500)
- Hookah or Waterpipe (4.7%; 21,500)

Figure 1. Percentage of Ever Using Electronic Cigarettes among High School Students, by Race/Ethnicity, Georgia, 2017

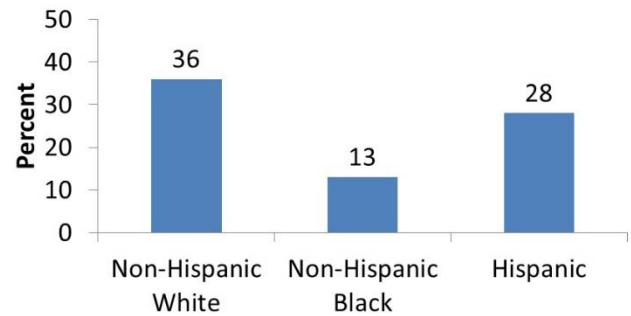


Figure 2. Percentage of Ever Using Electronic Cigarettes among High School Students, by Grade, Georgia, 2017

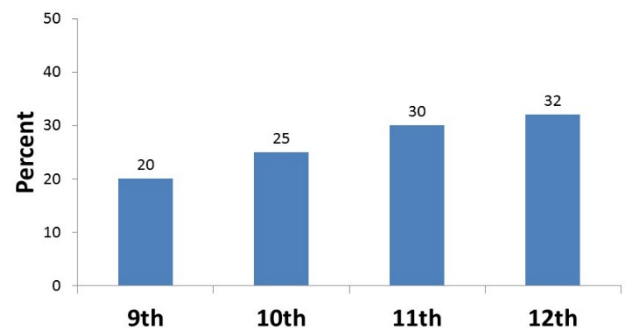
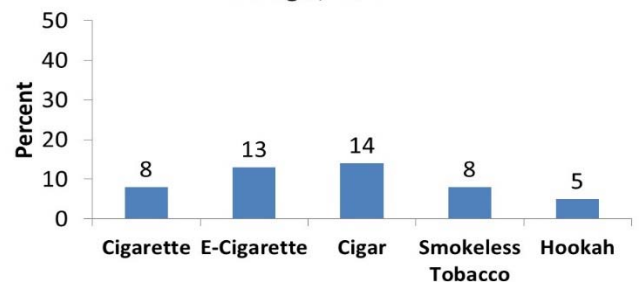


Figure 3. Percentage of Current High School Student Tobacco Users, by Tobacco Type, Georgia, 2017



Data Source: 2017 Youth Tobacco Survey (YTS)

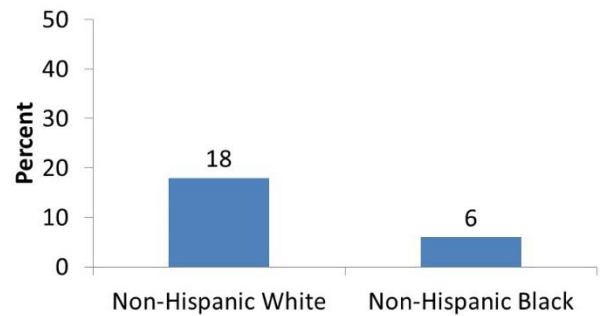
Current e-cigarette users were defined as having smoked e-cigarettes at least once during the past 30 days.

Overall, 12.7% (58,500) of HS students in Georgia currently smoke e-cigarettes.

Male HS students were twice as (15.9%; 36,000) likely to smoke e-cigarettes than females (8.4%; 19,100).

Current e-cigarette use was higher among NH white high school students (17.5%; 35,000) than among NH black high school students (6.1%; 11,000) (Figure 4).

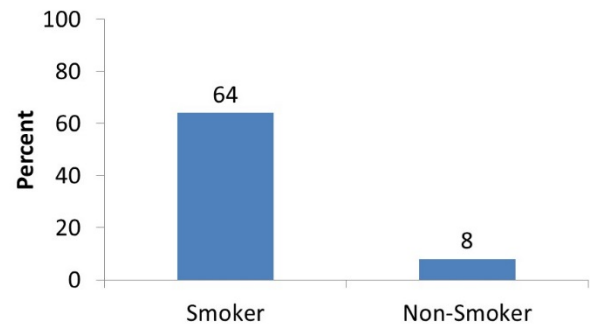
Figure 4. Percentage of Current Electronic Cigarette Users, by Race/Ethnicity, Georgia, 2017



Among Georgia HS students, 3.4% (15,500) were daily e-cigarette smokers.

Current e-cigarette smokers were more likely to also be cigarette smokers (63.8%; 21,100) than non-cigarette smokers (8.1%; 34,400) (Figure 5).

Figure 5. Percentage of Current Electronic Cigarette High School Student Users, by Smoking Status, Georgia, 2017



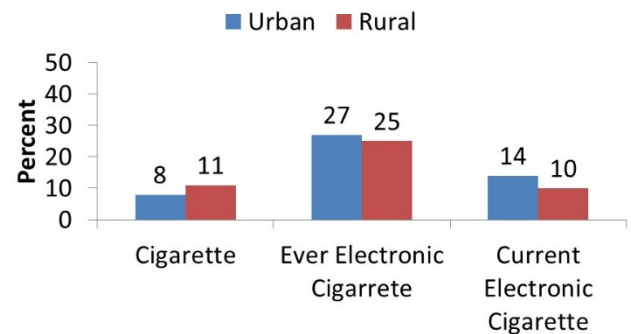
Urban vs. Rural Area in Georgia

More HS students residing in rural areas smoked cigarettes (11.1%; 9,100) than in urban areas (7.6%; 31,000) (Figure 6).

In urban areas, more HS students currently smoked e-cigarettes (14.3%; 56,500) than HS students in rural areas (9.7%; 7,900) (Figure 6).

Among HS students who smoked, students living in urban areas (69.8%; 20,000) were more likely to use both cigarettes and e-cigarettes than students living in rural areas (50.5%; 4,500).

Figure 6. Percentage of High School Students Using Cigarettes or E-cigarettes, by Geographical Area, Georgia, 2017



Data Source: 2017 Youth Tobacco Survey (YTS)

Types of Electronic Cigarettes and Point of Sale

Ingestion of e-cigarette liquids containing nicotine can cause acute toxicity and possibly death if the contents of refill cartridges or bottles containing nicotine are consumed¹.

In Georgia, 18.3% (84,500) of HS students said that they used the rechargeable, refillable, or tank e-cigarettes; while only 3.5% (16,500) of HS students said that they used the disposable kind; and, 4.4% (21,000) of students said they used both (Figure 7).

Georgia HS e-cigarette users reported the following reasons why they started to “vape” (Figure 8):

- Friend or family member used e-cigarettes (79.1%; 351,500);
- Trying to quit using other tobacco products, such as cigarettes (7.5%; 33,100);
- Can be used in areas where other tobacco products, such as cigarettes, are not allowed (2.6%; 11,500);and,
- Available in flavors, such as mint, candy, fruit, or chocolate (2.2%; 10,000).

The e-cigarette marketplace is new and rapidly changing. Some of these devices allow the user to modify the device and nicotine contents³.

Among HS students who were e-cigarette users, 10.6% (48,500) used their device with nicotine only; while 8.6% (39,500) used the e-cigarette device with marijuana, THC or hash oil, or THC wax; and 3.2% (14,500) used the device with another substance that is not marijuana, THC or hash oil, or THC wax (Figure 9).

Figure 7. Percentage of Current Electronic Cigarette High School Student User, by types, Georgia, 2017

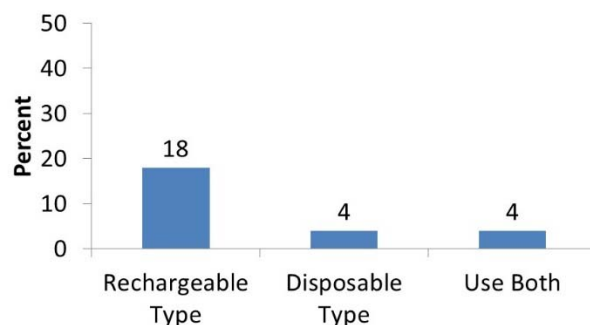


Figure 8. Percentage of Current Electronic Cigarette High School Student User, by Initiation, Georgia, 2017

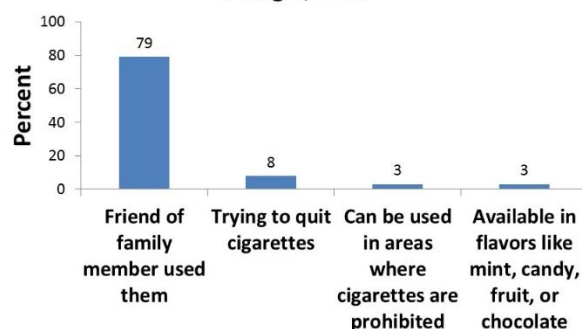
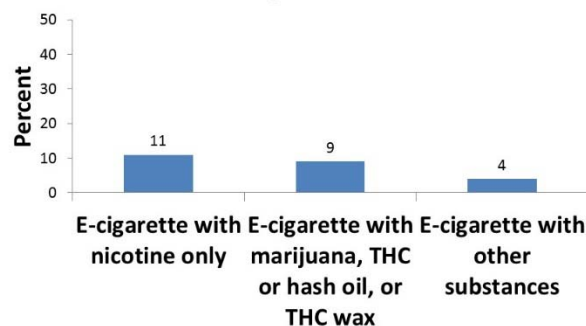


Figure 9. Percentage of Current Electronic Cigarette High School Student User, by substitutes, Georgia, 2017



Data Source: 2017 Youth Tobacco Survey (YTS)

Eighty-four percent (84%; 38,500) of Georgia's HS student smokers chose to go to a gas station or convenience store to purchase e-cigarettes.

Other places to purchase e-cigarettes included (Figure 10):

- From some other person that is not a family or a friend (6.6%; 30,100)
- Some other (2.3%; 10,600)
- From a friend (1.7%; 8,000)

Associated Risk Behaviors

One in four (24.9%; 111,500) Georgia HS students said that they believed e-cigarettes were more acceptable in society than cigarettes (Figure 11).

On the other hand, 15.1% (67,500) of HS students thought e-cigarettes were less socially acceptable than cigarettes; while only 9.6% (43,000) thought it was equally acceptable (Figure 11).

Current HS e-cigarette users (44.2%; 23,000) were more likely to believe in better acceptance of e-cigarettes than non-e-cigarette users (22.7%; 87,000).

Almost a third of HS students (31.7%; 142,000) reported that they believed e-cigarettes were **less** harmful than cigarettes (Figure 12).

Only 4.4% (20,000) of students said e-cigarettes were more harmful than cigarettes (Figure 12).

Current HS e-cigarette users (65.4%; 34,000) were more likely to believe that e-cigarettes were **less** harmful than cigarettes compared to non-e-cigarette users (27.5%; 106,000).

Figure 10. Percentage of Current Electronic Cigarette Users, by Point of Sale, Georgia, 2017

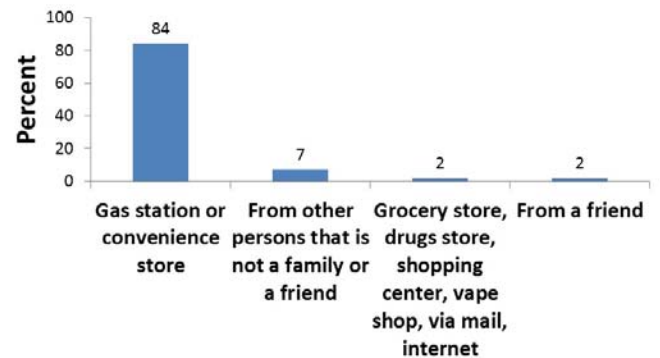


Figure 11. Percentage of Current Electronic Cigarette Users, by Social Acceptance, Georgia, 2017

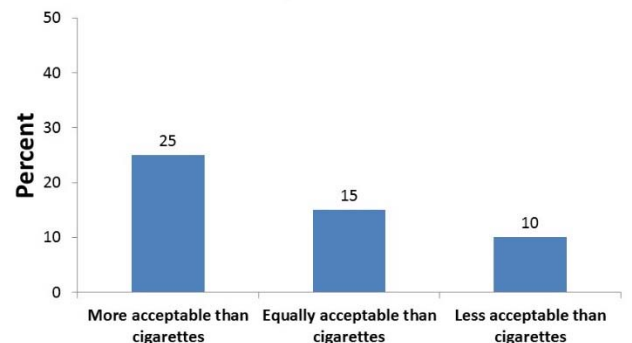
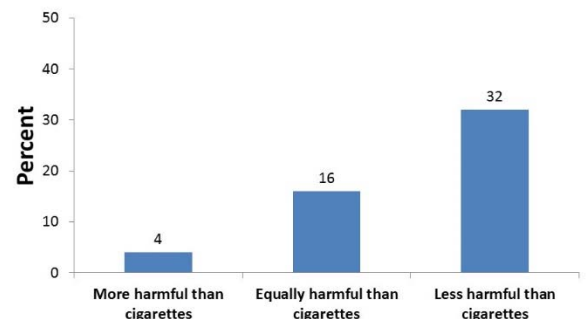


Figure 12. Percentage of Current Electronic Cigarette Users, by Harmfulness, Georgia, 2017



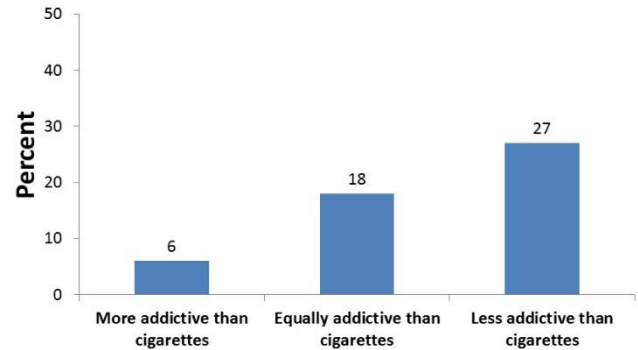
Data Source: 2017 Youth Tobacco Survey (YTS)

Among HS students in Georgia, 26.6% (119,000) reported that they believed e-cigarettes are less addictive than cigarettes (Figure 13).

Only 5.9% (27,000) of students said e-cigarettes were more addictive than cigarettes (Figure 13).

Current e-cigarette users (56.1%; 30,000) were more likely to believe that the e-cigarettes were less addictive than cigarettes compared to non-e-cigarette users (22.4%; 87,000).

Figure 13. Percentage of Current Electronic Cigarette High School Student User, by Addiction, Georgia, 2017



Data Source: 2017 Youth Tobacco Survey (YTS)

References:

1. HHS, E-Cigarette Use among Youth and Young Adults. A Report of the Surgeon General. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2016.
2. National Academies of Sciences, Engineering, and Medicine 2018. *Public health consequences of e-cigarettes*. Washington, DC: The National Academies Press. doi: <https://doi.org/10.17226/24952>.
3. Krishnan-Sarin, S, et al., "E-Cigarettes and "Dripping" Among High-School Youth," *Pediatrics*, 139(3), 2017.

Ask Your Georgia Health Care Provider about Georgia cAARds

Referring to the Georgia Tobacco Quitline (GTQL):

Georgia cAARds Program: Ask, Advise, and Refer with with Follow-up:

- **Ask** all patients about tobacco use during each visit
- **Advise** them about the benefits of tobacco cessation
- **Refer** them to the Georgia Tobacco Quit Line for a free “Quit Kit”, individualized plan and behavioral counseling : 1-877-270- STOP
- Complete the Georgia Tobacco Quit Line fax Referral Form with the patient
 - ✓ [GTQL Fax Referral Form](#) can be downloaded from DPH's website
- Inform the patient they will be contacted by a Georgia Tobacco Quit Line staff member within 48 hours or less

Georgia Tobacco Quit Line: 1-877-270-STOP (7867)

Georgia Spanish Line: 1-877 2NO-FUME (66-3863)

Hearing Impaired: 1-877-777-6534

Open 24 hours/ 7 days a week

