

Vital Signs Town Hall Teleconference  
E-cigarettes, Advertising, and Youth: A Public Health Priority  
January 12, 2016  
1:00 pm CT

Coordinator: Welcome and thank you all for standing by. At this time all lines are in a listen-only mode until today's question and answer session. At that time you may press star one to ask a question on your phone.

I would like to inform all parties that today's conference is being recorded. If you object to that for any reason you may disconnect at this time.

I will now hand the conference over to Steve Reynolds. Mr. Reynolds, you may begin.

Steve Reynolds: Thank you. Good afternoon everyone. It looks like we have a full webinar today. We've got over 150 people right now on the call and I noticed that the numbers keep growing. So that's exciting and everyone's very interested in the topic. I'm Steve Reynolds, the Deputy Director for CDC's Office of State Tribal, Local and Territorial Support.

I'm glad you could join us today. We'll be discussing this month's *Vital Signs* report about e-cigarettes ads and youth. Before we get started, let's go over some housekeeping details.

You can go online and download today's PowerPoint presentation so you can follow along with the presenters. The Web address is [www.cdc.gov/stltpublichealth](http://www.cdc.gov/stltpublichealth). That's again - it's S-T-L-T public health.

Look on the far right side of the page for the *Vital Signs* Teleconference link or you can Google “CDC Vital Signs Town Hall” and click on the top link. That should get you there.

On the same webpage you can access bios for today’s presenters and the audio recording and transcript, which will be available next week. There will be time for questions after today’s presentation, but you can get in the queue at any time to ask a question. Just press Star 1 and say your name when prompted. Back for our topic that’s for today - E-cigarettes, Advertising, and Youth: A Public Priority.

We’re going to hear from three colleagues. First, we will hear from Dr. Singh, an epidemiologic intelligence service officer -- EIS officer -- in the Office of Smoking and Health at CDC’s National Center for Chronic Disease Prevention and Health Promotion. He will talk about the findings in this month’s *Vital Signs* report.

Then we will hear from Jeanne Finberg and she will present - she’s the Deputy Attorney General of the Office of the Attorney General California. She will discuss how e-cigarettes have been regulated in California.

And then we’ll hand the call over to Robin Koval, the President and CEO of Truth Initiative. She will talk about the placement and themes of e-cigarette ads.

And now I’ll turn the call over to Dr. Singh. Dr. Singh?

Dr. Tushar Singh: Thank you and good afternoon everyone. I’ll spend the next few minutes summarizing the major points of our *Vital Signs* article and addressing what

can be done to reduce exposure of electronic cigarettes, or e-cigarettes, advertising among youth.

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E-cigarettes are battery-powered devices capable of delivering nicotine and other additives such as flavorings to the user in an aerosol. There are three main sizes of e-cigarettes on the market, including minis or ciga-lites, mid-sized, and tanks or mods. E-cigarettes typically deliver tobacco-derived nicotine, which is highly addictive, might lead to sustained tobacco product use, and might harm brain development among youth.

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This slide shows data from the National Youth Tobacco Survey. These data demonstrate that past thirty-day use of e-cigarette among US middle and high school students has increased considerably since 2011. In 2014, 13.4%, or more than two million US high school students, and 3.9%, or more than 450,000 middle school students have used an e-cigarette in the past thirty days.

E-cigarettes became the most commonly used tobacco product among these students in 2014.

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Corresponding to the increases in e-cigarette use, e-cigarette advertising expenditures have increased from \$6.4 million in 2011 to an estimated \$115 million in 2014 in the US. E-cigarette sales have increased rapidly since

entering the US marketplace in 2007, reaching an estimated \$2.5 billion in sales in 2014.

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Tobacco products advertising is causally related to tobacco product initiation among youth. Many of the themes used in conventional tobacco product advertising, including independence, rebellion, and sexual attractiveness, are also used to advertise e-cigarette. Moreover, almost all tobacco use begins before age eighteen years, during which time there is great vulnerability to social influences, such as youth-oriented advertisement and youth-generated social media posts.

In the recently published *Vital Signs* report, we assess the exposure to e-cigarette advertisement among US middle school and high school students. The slides that follow will present an overview of that report, its findings, and implications.

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We use data from the 2014 National Youth Tobacco Survey, which is the nationally representative, self-administered pencil and paper survey of US middle and high school students. Twenty-two thousand and seven students participated in the survey in 2014. We assessed exposure to e-cigarette advertisement from four sources - retail stores, internet, TV and movies, and newspapers and magazines.

We analyzed the weighted data to estimate exposure from each source for all students and by school type, sex, race, ethnicity, and grade.

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In 2014, 18.3 million or 68.9% of middle and high school students were exposed to e-cigarette advertising from at least one source. Retail stores were the most frequently reported exposure source, with an estimated 14.4 million or 54.8% of the students exposed; followed by the internet with 10.5 million or 39.8%; TV and movies with 9.6 million, or 36.5%; and newspapers and magazines with 8 million, or 30.4% of the students exposed to e-cigarette advertisements.

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Overall, approximately 22% of the participants reported exposure to e-cigarette advertising from one source; 17% from two sources; 14% from three sources; and 15% or more than 4 million students were exposed to e-cigarettes advertisements from all four sources.

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It is important for parents, healthcare workers, public health practitioners, and policymakers nationwide to note that youth are vulnerable to e-cigarette advertisements and are seeing them in their communities and during their daily activities. There are several ways to reduce this exposure.

States and communities can fund tobacco prevention and control programs at CDC recommended levels to prevent youth use of all tobacco products, including e-cigarettes. Currently, states and less than two percent of the revenue they receive from tobacco taxes are settlement payments on tobacco prevention and control.

States and communities can also work to limit where and how all tobacco products, including e-cigarettes, are sold to reduce youth e-cigarette use as well as advertising exposure. This may include requiring that e-cigarettes be sold only through face-to-face transactions, not on the internet; or limiting tobacco product sales to facilities that never admit youth.

States and communities can also support efforts to implement and continue proven youth tobacco prevention approaches, including tobacco price increases, comprehensive smoke-free laws, and high impact mass media campaigns.

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Outside of government, pediatricians, nurses, and healthcare workers can ask about youth e-cigarette use and provide counseling on dangers of use of all tobacco products including e-cigarettes. They can ask all patients about their tobacco use and provide help to users with quitting.

They can also advise parents and caregivers to actively participate in deciding which websites and media children may view, and discuss media content with them. Parents, caregivers, and other influencers of youth also have important roles to play. They can set a positive example by being tobacco-free and talk to youth about e-cigarette use, and counsel them about the dangers of nicotine, e-cigarettes, and all other tobacco products.

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This concludes my presentation. Thank you. Our next presentation will provide more information on the regulation of electronic cigarettes in

California, presented by Jeanne Finberg, Deputy Attorney General, California Department of Justice.

Jeanne Finberg: Hello everyone. I'm really happy to be participating in this CDC presentation on electronic cigarettes and youth. It's one of my favorite topics and an issue of concern to our state and most of the other states in the country. This is my name and office.

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We, in California, started looking at electronic cigarettes, investigating them, when they first came onto the market in the US, which was in 2009. And at that time the two big American companies were Smoking Everywhere and Sottera - was the name of the company. NJOY was the name of the product. They've since changed their name to NJOY and I have pictures there of those two companies.

We talked to the companies that were selling in the US about our concerns about youth and about marketing. And although we threatened litigation, we threatened to sue them because we thought they were violating our laws. Even though at that time we had no laws that specifically mentioned e-cigarettes or electronic cigarettes in any way, we felt like they were in violation of our regular business and professions code and consumer protection laws because the product were being sold to kids. And they were using flavors and marketing techniques that we thought were an unfair business practice, and therefore illegal in our state.

So we were very fortunate in that we didn't have to fully litigate the cases. We entered into consent judgment with both companies and that's the name of the cases.

And in the next slide I put down what are the key conditions in those judgments that were entered more than five years ago. Although these judgments are old and the companies are no longer the market leader—Smoking Everywhere has since gone bankrupt, and NJOY is still a very viable company but its market share has been reduced considerably, particularly since the Big Tobacco companies have entered the electronic cigarette market in the past few years.

But I mentioned these provisions that we've put in our original consent judgments because they really form the template for what we believe is appropriate regulation in our state and what we are looking for from all of the companies in terms of what we consider corporately responsible practices.

Some of the lingo has changed, as I'll mention when we go through, but most of the issues are still the same. We don't want them selling to kids. So the sales should be age-restricted and they should require a government ID for anyone that looks young. Twenty-six and under seems like a good method that we used for cigarettes.

We don't want them to sell flavors that are targeted to appeal to minors, and in our judgment we have some specific flavors named—strawberry-banana, cookies and cream, and mint—but it's including but not limited to those flavors.

We ask the companies not to use young models in their advertising, not to use cartoons, art, fashion, or music that's intended to appeal to minors. And we, like others on this call and around the country, have a lot of experience with traditional cigarettes and what type of marketing was used and was found

effective in luring kids. And we don't want to see that again with these products.

We also require that displays and products state right on them that they're going to require an ID, that they shouldn't have self-service displays. That's where a rack, where a kid could just pick it up themselves. We don't want that. We want them behind the counter so that the ID requirement has some force.

We also prohibited smoking cessation claims as most of you probably know. The FDA has not approved any of these devices as smoking cessation device. The law requires that before any company or product can say "use this to quit smoking." A lot of them imply that or their advertising is a wink and a nod about smoking cessation, but they cannot say "this will help you stop smoking" or "now I don't smoke." And we have this agreement with NJOY and we also impose that requirement on every other company that comes to our attention.

The companies cannot use false or misleading health and safety claims. At that time, the particular offending representations that we specified in the agreement were about being safer than cigarettes, about having no tar, no first or secondhand smoke, no tobacco, no carcinogens.

The standard for making health claims and the safer-than-cigarettes claim is one that people ask about - they have to have competent, reliable, scientific evidence where the consensus in the community is that's true. And that statement is probably the most controversial statement on this list and it will continue to be a controversial statement until we have scientific consensus, which in my opinion we do not have now.

They can't use vitamins or other substances in the product that might make it look like using the product would improve someone's health. We also imposed some quality control on the product. And here in California we have something called Proposition 65. It only applies in our state, but I think that probably a lot of you have seen Prop 65 warnings because companies that sell nationally often have that stamp on all their products.

Prop 65—it requires a warning if something is carcinogenic or it causes reproductive harm. And we require Prop 65. The nicotine is a substance that has been known to the state of California to cause reproductive harm, and so we have required that warning on all electronic cigarette products in our state.

We did not in this agreement require the carcinogen warning at the time of this agreement, which was in 2010. We did not have good scientific evidence that the products as they were used then had carcinogens. And as many of you probably know, there has recently been a lot of published evidence showing that many of the products in certain doses do have carcinogens, and we do believe that probably many of them now are required to give the carcinogen warning on their products. It's pretty complicated because of the tremendous variance of the products and the tremendous variance of the dosages that people use.

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In California we just have one law that applies specifically naming electronic cigarettes and it's a law that prohibits sales to minors. We were the first state to have such a law and it is still the only law that we have that specifies electronic cigarettes in the law. Most other states now also have that law. Some of them have much, much better laws than we have.

The other—I mentioned the Prop 65 warnings the two type that we believe also apply to these products. And then we also have consumer protection statutes, which the federal government and every other state have, which prohibit false or misleading claims, or unfair business practices. And that's what a lot of our enforcement activity has revolved around.

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In terms of enforcement, we have monitored many companies. We obviously have not monitored all of them because there are so many now, but we have sent letters to more than 200 different companies.

We do emphasize voluntary compliance. We are not interested in suing all these companies. We really just want to protect children and protect our residents.

Most of the letters have been about the issues that are the subject of this presentation about internet advertising, about other advertising, about sales to minors. And we give advice to the companies. We write the letter and when they don't know what they're supposed to do we tell them.

And honestly, most of the—well all of the large companies with some type of corporate responsibility have complied with almost all of our directives in terms of sales to minors, specifically targeting minors, and that type of issue. We have not been in agreement about the flavor issue with a lot of companies, but some have agreed to stop selling flavors or to stop selling flavors that target kids, or to stop selling flavors in our state.

But as you all know, there are many companies and many large and small companies selling flavor products. We now just look at the very large

companies or egregious conduct. And in terms of age restriction on the website, I would prefer that they restrict the website on the front end so the kids are not exposed to the marketing.

But honestly most of the companies actually only restrict that age on the back, which means that before they sell to a person under eighteen or under twenty-one—which actually now will be the legal age in Hawaii and some other locations—they have to verify age. And most of the big companies do that and many of the small companies do that.

But we still are looking at these other issues, whether they use young models, music, art, sports, celebrities to appeal to kids.

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Smoking cessation claims—saying that this product will help you quit or testimonials that say “I started smoking X brand and I haven’t smoked a cigarette in six months” or “in two years.” That’s a smoking cessation claim; that is illegal. The companies cannot do that.

False or misleading health claims—we mentioned what a bunch of them are. The types of claims that are being made now are different from what they did before. For example, they used to say you could smoke everywhere. They don’t say that anymore. They don’t use the word “smoke” as much because they like the word “vape.” Smoking is not cool. Vaping it’s cool.

And I put down the two claims that bother me the most on health and safety—the harmless water vapor claim and completely safe—because we believe that those statements are false. The vapor or the aerosol that comes out of these products is not just a water and they are not completely safe. How safe they

are is a subject of great debate, but they're certainly addictive and they are not completely safe.

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I wanted to mention that there is a lot of law that do apply to electronic cigarettes because people often say there is no law because the federal government has not yet taken jurisdiction and the FDA regulations haven't come out. But actually, there is a fair amount of law that applies now and so I wanted to mention what that is—smoking cessation claims that I talked about. They are prohibited by federal law and they should be monitored by the FDA or by other local law enforcement.

There are state laws in just about every state now that prohibit sales to minors. There are more restrictions in many states that include no use of electronic cigarettes in their smoke-free, or their workplace laws. Many have childproof packaging. New York passed legislation requiring childproof packaging on these products, and although it's not—and other states also have that requirement—but because, I think it's Illinois and New York, Because they are big states, a lot of the companies are trying to come into compliance even if it's not in every state.

And I just understand this week that the Child Nicotine Prevention Act passed Congress. So that statute will be on the President's desk for signature or veto. So we may have national standards for childproof packaging very soon.

We have, like other states, general consumer protection laws. And many local jurisdictions have even more specific requirements that require licensing, and that would put electronic cigarettes kind of in the same boat as conventional

cigarettes in terms of the types of things that jurisdictions can do to regulate the company.

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I mentioned the FDA. I think most of you probably know that the FDA has indicated and proposed regulations that they will take jurisdiction over electronic cigarettes. And the regulations have not become final. We keep understanding it's going to happen any minute and it will certainly make a huge difference, particularly with regard to enforcing sales to minors because the FDA funds almost every state in terms of enforcement activities for sales to minors of a conventional cigarette.

And as soon as electronic cigarettes get put into the same program there will be actual enforcement of the laws that are now in the book that prohibit sales of e-cigs or electronic cigarette products to minors, but unfortunately have not been enforced in many states that don't have the resources to do it.

But while we're waiting for the FDA regulations to become final we still have state Attorneys General, like myself. And although California has been the most active state probably by far, there are other states that are active and very interested and concerned about electronic cigarette products. I know Arizona has been very active with regard to youth sales and marketing. And virtually all of the other big states are also involved and monitoring electronic cigarettes now -- New York, Illinois, Ohio. They're all very informed and interested in the violations by e-cigarette companies.

Then you also have your other more local law enforcement. You have district attorneys and you have city attorneys in your local jurisdictions that can

enforce general consumer protection laws. They can also enforce federal law or any local laws that they have.

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We went back to NJOY and we modified the consent judgment. They started selling many flavors that we thought were a violation of our agreement, and instead of enforcing the flavor issue we used the opportunity to obtain other protections that would, in our opinion, help prevent sales and marketing to minors. And so this list indicates many of the types of requirements that we had.

We put the childproof packaging in there, third party verification online. Testing and enforcing at retail—this is a very important issue for us because, as I indicated, although the states have provisions that say sales to kids is illegal, it's happening right and left. And so the attorneys general nationally—almost every state is part of agreements that we have with the major retail chains. Walgreens, Walmart, 7-11, Chevron—we have agreements with these companies about responsible corporate practices and preventing sales to minors, testing, and enforcing the types of responsible practices about cigarettes. And we would like to have them add electronic cigarettes to all of those processes, trainings, and procedures.

And we put that into our NJOY agreement. So now NJOY is required to tell all of its retail chains and its independent marketers that they must utilize these types of processes. This agreement just applies in California and it just applies to NJOY. So it's very limited in its actual provisions, but we are hopeful that it will have a broader impact than just our state and just NJOY because we think that when a retail chain is faced with a very specific procedure that it has to apply in California and that it has to apply to one

electronic cigarette company that they're likely just to apply corporate responsibility practices across the board.

Since this became effective, we don't know yet. So we'll need to stay tuned, but we are very hopeful that this might happen a lot faster than the change in federal law that we're still waiting for.

We also made some requirements about age restriction on social media because the teens are online all the time. And on broadcasts and print ads I know a lot of you have seen TV ads by these companies. We limited them by market share. There can't be too many youth as part of the audience of those advertisements.

They also agreed like the conventional cigarette companies have agreed in the master settlement agreement not to do billboards or public transit ads. They also specifically agreed about product placement in movies, TV, et cetera unless they're R-rated. And then put up signs about age and requiring ID.

So we will see. We'll be looking. We'll certainly be enforcing the agreement against NJOY and we're hoping that it, again, will serve as a template for what we expect all the companies to do and what we're going to be expecting the retailers to do in terms of responsible corporate practices.

So that's the end of my presentation. This is my contact information so people have questions or comments or enforcement issues you are free to contact me. And I think what I said about other states and jurisdictions—if you find a big company that has a serious violation with regard to e-cigarettes, I really think that they will help you now.

No one has the resources to go after every violation of these small companies because there are too darn many, but I think with regard to the big issues that we do need to monitor the companies. But I do feel very confident that the responsible companies will comply if we make them.

And now I'm going to turn it over to Robin Koval who is with the Truth Initiative.

Robin Koval: Thank you Jeanne. Thank you to the CDC for inviting me to be here today and to present on this topic. If you go to the next slide, the agenda in terms of what I want to cover in my remarks today—much of which will be very consistent with the data that CDC has shared. We'll cover use and young adults, awareness of e-cigarette advertising. This is self-reported perceived exposure. Then also looking at results from our analysis of e-cigarette advertising spending (what they've actually spent) and advertising delivery (what they have actually delivered) in terms of advertising messages against youth and young adults. And then finally, our look at e-cigarettes media placements and message content.

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So in our research what we have found—very similar to CDC, but in some ways actually more dramatic. Eight of ten youth are aware of e-cigarette ads. And as you can see, this is among thirteen to seventeen year olds, we looked at, as well as eighteen to twenty-one year olds—so young adults.

We collected this data through Research Now. It's a firm with expertise in online panels. And we surveyed these individuals both in February 2014 and again in August 2015. A thousand individuals in each portion of the survey.

So specifically for the survey that ended in August, we found that 82% of thirteen to seventeen year olds and 88% of eighteen to twenty-one year olds had reported seeing an e-cigarette ad in at least one channel in 2015. And of course, these very high rates are consistent with concurrent rising youth e-cigarette use. And as you can see by these numbers, virtually universal.

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We also looked at awareness of e-cigarette ads by media channel. So digging a little bit further into the data. As with CDC's data, what we see is the number one source of reported awareness is retail. To us that's not surprising given the ubiquity and frequency of retail exposure. These types of retail outlets, which include convenience stores, supermarkets, gas stations, are present on nearly every street corner in America and visited on a daily basis.

We also see very high levels of reported awareness in television and online. We think that's quite concerning. It's particularly notable for television because traditional cigarette advertising has not appeared on TV since 1971. And as you'll see in a later slide, this level of awareness is overrepresented relative to the level of investment that's being made. Some of that may reflect the pure novelty of seeing anything related to smoking or vaping, in this case, on television.

We also think it's quite noteworthy when you look at the level of reported exposure in online. As you see here, 40% of thirteen to seventeen year olds, 57% for eighteen to twenty year olds because, again, when we look at actual spending—which we'll do in a moment—online spending, at least that we can measure, is even lower than that for television. So there is a lot of perceived awareness going on.

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So we then move from asking young people where they thought they had seen advertising to actually looking where e-cigarette brands are spending their money. And we do this through our media partner, media agency called Assembly, using some established sources that actually measure how much spending is out there. The source we use is called Kantar Media, and they survey three million brands across twenty media channels. So it's quite extensive.

And what you'll see on this slide here is that across the top ten brands, e-cigarette advertising rose 52% between 2000 and 2014, reaching 115.3 million. That's the number you are aware in the CDC data.

What is interesting to us, if you look at the orange band at the bottom of the slide however, is when we look at the first half of 2015—which is the latest data we have available in reported spending—if you look at it on a straight line projection basis, it does look like it's trending down. We see only \$25.5 million spent during the first six months of 2015.

We don't know exactly what this pullback in advertising represents. It may represent the tobacco companies spending less money after their big launches—for instance, for Mark 10 and Vuse in 2014—and perhaps might even foreshadow declines in usage in coming months. We will have to look at that quite carefully.

However, when we do look at 2014 spending and we look at the individual brands, the top ten e-cigarette brands with the highest advertising expenditures in both years account for 98% of the total category spent. So you can see spending is quite concentrated. And in fact, when we look at just five

brands—Blue, Mark 10, NJOY, Vuse, and FIN—they account for 95% of total spending.

And of course, very importantly, if you look at the brands that are boxed in orange there, the three brands who spend the most money—Mark 10, Blue, and Vuse—are all owned by Big Tobacco companies. Big tobacco is by far at this point the force behind this market.

And especially when you look at 2015, you'll see that while these brands have cut back—Blue, Mark 10, and Vuse—they are still spending in the millions of dollars while some of the other competitors in this top group—FIN and NJOY—have cut back significantly.

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We then look at spending by channel—so where is this money being spent? The vast majority of the ad dollars are being spent in magazines which is the number one channel, which is interesting because if you recall back to where perceived awareness is being generated, print does not come up in the top. And cable television, which you can see here. So in 2014, \$83.4 million was spent in magazines with Mark 10 as the top spender there. And in television, \$22.3 million with Blue being the top spender here.

And when you look at e-cigarette advertising expenditures across all channels, what you can see is that in terms of other channels—radio, newspapers, I'll point you specifically to digital display here—these numbers are quite low.

One of the things that we think is very interesting here is as pertains to digital. We think these numbers are grossly underreported. What we can measure is

what's called digital display. These are ads, banners, things that you might see on websites. I'm sure you're very familiar with that.

What this doesn't fully measure is money being spent in paid search—there's some search captured here, but not a lot of it; paid social media promotion—so on Facebook and all the various other social sites; branded websites in mobile; and also does not account for spending happening in terms of other people passing—which is not spending—but exposure of other people passing along messages that they may be receiving on social media or editorial coverage as well.

So basically it's not surprising that we're seeing a lot of awareness being attributed to digital, but not spending there because we can't really accurately measure at this point all of the activity that's happening there.

I think the other thing I would point out too is the incredible power of television. If you look at the relative level of spend in television versus print versus the perceived awareness—and this is one of the things that concerns us about television being an available medium to e-cigarette advertisers. Unlike traditional cigarettes, television—despite the prediction that television is going away, it most definitely isn't and remains incredibly powerful.

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So that was spending. We then look at what is the actual exposure that is being generated to teens and young adults based on this spending. And so that—for that we use a measure that we call reach. Reach is a measure of potential exposure and it measures the opportunity to see an ad at least once based on spending that is taking place in a particular channel.

So for instance, you may be familiar with things like Nielsen ratings. Nielsen measures actual delivery or potential delivery of messages in the television channel and similar tools exist for print and others. And what we find is that a large proportion of teens and young adults were reached by ads for e-cigarettes, particularly television and print ads.

So as you can see in this chart, Blue reached 72% of 12 to 17 year olds and 90% of 18 to 24 year olds. What that means is 72% of 12 to 17 year olds had an opportunity to see a Blue ad at least once and, in fact, probably saw them more frequently than that.

For Mark 10, 43% of 12 to 17 year olds and 78% of 18 to 24 year olds; and then for Vuse, 37% of 12 to 17 year olds were reached and 40% of 18 to 24 year olds.

If we take that all together, approximately 80% of 13 to 17 year olds—that's 20 million individuals—and 94% of 18 to 24 year olds—29 million individuals—were reached by e-cigarette advertising. Again, nearly universal, which is consistent with the awareness numbers.

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The next thing we looked at is—so where are these ads actually running? What are the actual media vehicles that these e-cigarette advertisers are choosing to use? And are these vehicles ones that would suggest that they are not just passively reaching young people but perhaps actively reaching young people, or at least not intentionally screening them out?

And so for example, on television, what you see is very heavy usage of networks like Comedy Central, Discovery, and Spike. Comedy Central is the

network where shows like South Park and the Daily Show—or you might be familiar with a show called Tosh.0—all run. These are shows with high indexes—in other words, they deliver more than average—against young people. For 12 to 17 year olds, Comedy Central over-indexes by 31% and 88% for 18 to 24 year olds.

Or the Spike Network over-indexes for young adults 18 to 24 by 58%. Programming on Spike would include shows like Ink Masters, which is a show about tattoo artists, or Lip Sync Battle if you've ever seen that.

And we've seen a similar trend for print. So for young adults, the average index among all titles used was 136%—again, showing that this audience is a strong focus for e-cigarette companies. The titles that were used the most in descending order are pictured here—so titles like Sports Illustrated, US Weekly—heavily read by young people—and Cosmopolitan. Again, all titles that over-indexed for younger delivery.

And so what we conclude from that we don't know for certain, of course. But what this suggests is that these advertisers may specifically be choosing these vehicles because they have higher compositions of young people. But at minimum, they are not excluding them.

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We also looked at ad messages across the spectrum. So in addition to the actual vehicles that e-cigarette advertisers are using, what are the messages that they are placing in these vehicles? And as we've mentioned before, we see a range of types of message, some of which clearly seem like a return to the battle days.

So if you look on the left-hand side of this page, we see ads that, as we're terming them, are more product-focused. These are ads that talk about the features of the products, how you use them, et cetera. One might characterize these as more responsible in the sense that they are not lifestyle-focused.

However, by being very product-focused, if you look at a number of these ads, they may appeal to youth because a lot of them are presenting products that are high tech or technologically advanced or futuristic—which are all themes that we know have youth appeal.

And then of course, as you move to the more lifestyle-focused ads, as was mentioned earlier this is a return to the bad old days. These are ads that make heavy use of themes like sex appeal, hanging out with friends, improved peer group status, independence, freedom, and as you can see here, visualization of attractive young people using the products, which is certainly an aspirational appeal.

And again, although some of these approaches may, in fact, be more responsible than others, we think they all have intended or unintended appeal to young adults. And of course, we see that in terms of youth experimentation with these products.

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So in summarizing our take on what do we learn when we look at perceived awareness, what the young people think they've seen and been exposed to, what is actually being spent and delivered, and where the money is being spent, a few things emerge. As CDC has confirmed, there's almost universal awareness of e-cigarette advertising among teens and young adults. They

know these products are around and that awareness has been generated through advertising.

Big Tobacco is the major spender in the category and beyond the spending that we are able to monitor, we suspect that much spending is not yet being captured in the tools that we're able to use.

We are seeing a potential downward trend in spending during 2015. That's something we will all keep a close eye on as the full year data becomes available. Ideally that will translate into changes in prevalence as well.

As I mentioned earlier, although spending for television is lower than for print, TV is a very large source of awareness indicating the great efficiency of TV and a TV ad, especially for the youth audience. They are still watching and paying a lot of attention and giving a lot of credence to television, which is why we're very concerned about e-cigarette advertising remaining on television.

And a potential troubling finding from analysis suggests that young adults and youth are being targeted in these e-cigarette ad buys. Or at minimum, no effort is being made to curtail exposure, which is somewhat surprising when we think that—if you were trying to target the people who could potential most benefit from quitting or switching to e-cigarettes, one would expect to see schedules that heavily favor adults thirty-five plus, which we don't see.

And finally, our analysis of ad content suggests a range of communication themes. That's not surprising from product focus, which can be more responsible, to lifestyle focus, much of which is much less responsible and clearly using techniques that we know and have—there's much evidence appeal to kids.

Next slide.

That concludes what I had to add to the presentation. You have my contact information here. All of this information and more is included in the report called “Vaporize” that’s on our website. It has the address here and you can search for “Vaporize” there. And I thank you very much.