

TAXATION OF E-CIGARETTES

Federation of Tax Administrators
Revenue Estimation and Tax Research Conference

September 28, 2015
Tampa, Florida

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MINNESOTA · REVENUE

E-CIGARETTE ISSUES

- Tax Policy
- Tax Revenue and Forecasting
- Other, e.g., Public Health

E-CIGARETTE BASIC QUESTIONS

- How should e-cigarettes be taxed?
- What is the potential revenue impact:
 - From taxing e-cigarettes
 - On future cigarette collections
- Are e-cigarettes harmful?

E-CIGARETTES & VAPORIZERS

- E-cigarettes simulate the act of smoking by producing an aerosol (vapor) that is inhaled
- Work by heating liquid, typically containing nicotine, which creates the vapor
- There is no lighting, fire, smoke or ashes
- Look is similar to traditional cigarettes



CLOSED SYSTEMS

- First style of e-cigarette
- Designed to look & feel like a traditional cigarette
- Provides easy transition from smoking to vaping
- Disposable or rechargeable options
- Relies on prefilled cartridges
- Automatic sensor activates e-cigarette for use



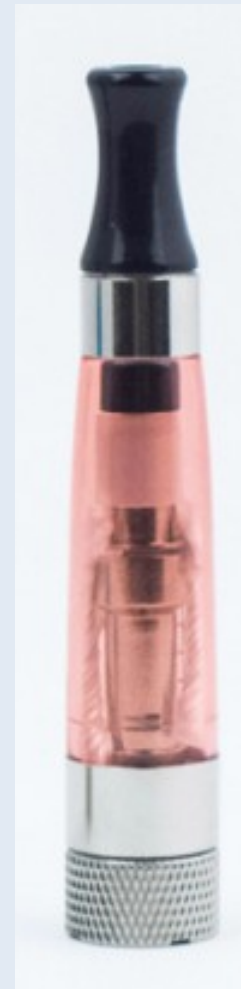
OPEN SYSTEMS



- Often called vaporizers, vapor pens, or VTMs (vapor-tanks-mods)
- Interchangeable parts allow greater customization
- Manually refillable with e-juice
- Rechargeable, typically with USB charger
- Activate manually with button

E-JUICE/E-LIQUID

- E-juice is sold in bottles or pre-filled disposable cartridges
- Usually comprised of propylene glycol, vegetable glycerin, nicotine, and flavoring
- Nicotine levels vary (0 mg/mL to 24 mg/mL)
- Thousands of flavor options



HOW DOES AN E-CIGARETTE WORK?

- Cartridge – Contains the e-juice
- Battery – Produces energy to heat e-juice
- Atomizer – Converts e-juice to fine mist or vapor



EQUIVALENCY

1 pack cigarettes \approx 1 disposable e-cigarette = 1 ml e-juice = 1 replaceable cartridge = 20 servings



\approx



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Equivalency may vary based on nicotine content and smoking habits.

CONVENIENCE STORE VAPOR PRODUCT COSTS

System Type	Unit Type	Average Minnesota Price/Unit
Closed	Disposable	\$6/unit
	Rechargeable <ul style="list-style-type: none"> ▪ Prefilled Cartridges 	\$12.50 /unit <ul style="list-style-type: none"> ▪ \$6/unit
Open	VTMs <ul style="list-style-type: none"> ▪ E-Liquid 	\$30+/unit <ul style="list-style-type: none"> ▪ \$0.68/ml ▪ \$10.20/15ml bottle

TOP BRANDS – ALL CHANNEL DATA

Market share (dollar share)

- Vuse (RJR) - 30%
- blu (Lorillard/Imperial) - 25%
- Logic - 15%
- Mark Ten (PM USA/Altria) - 10%
- NJOY - 5%
- Others - 15%



All channel data includes convenience stores and mass retailers.
Source: Nielsen Data, CSP News

BIG TOBACCO

- **Big Tobacco e-cigarette national rollouts:**
 - April 2012, blu by Lorillard/Imperial
 - June 2014, Vuse by Reynolds American (RAI)
 - December 2014, MarkTen by Altria (Philip Morris USA)
- **October 2013, Lorillard purchased SKYCIG (\$49 million)**
- **February 2014, PM USA/Altria purchased Green Smoke (\$110 million)**

CONSUMER PROFILE

- **5.9% of MN adults used e-cigarettes in past 30 days**
 - **12.8% of young adults age 18-24 used e-cigarettes in past 30 days**
- **65.8% of MN vapers currently smoke traditional cigarettes**
- **Some users “don’t get same burst of nicotine” from e-cigarettes** (June 2015, Reuters/Ipsos poll)

WHY DO CONSUMERS CHOOSE TO VAPE?

- As an alternative to smoking
 - Health reasons
 - Children and family
 - High cost of traditional cigarettes
 - Nothing else worked
- As a supplement to traditional tobacco products
 - Cool tech
 - Flavor variety and customization
 - Convenience of smoking where traditional smoking is banned
 - Allows a nicotine fix without the health hazards
 - “Hand-to-mouth”
 - Reduce side-effects of smoking

TEEN USE

- **13.4% of high school students have used e-cigarettes in the last 30 days (MN Dept. of Health)**
- **E-cigarette use tripled among middle & high school students from 2013 to 2014 (CDC)**
- **Nearly one quarter that try e-cigs have never used traditional tobacco products (MN Dept. of Health)**
- **Extensive marketing toward teens and young adults**
- **Over 7,000 flavors of e-liquid**

HISTORY OF VAPOR PRODUCT TAXATION IN MINNESOTA

- **2003:** E-cigarettes were first developed in China
- **2007:** E-cigarettes were introduced to the U.S. market
- **2010:** Minnesota's statutory definition of tobacco products was changed to include a variety of tobacco products including: lozenges, vapor products, and strips

STATUTORY DEFINITION – TOBACCO PRODUCTS

Subd. 19. Tobacco Products. (a) “Tobacco products means any product containing, made, or derived from tobacco that is intended for human consumption, whether chewed, smoked, absorbed, dissolved, inhaled, snorted, sniffed, or ingested by any other means, or any component, part, or accessory of a tobacco product...”

- **2012:** Revenue notice 12-10 clarified the statutory language, MN Statute, Sec. 297F.01, subd. 19:
- **2013:** The OTP tax increased from 70% to 95% of wholesale price

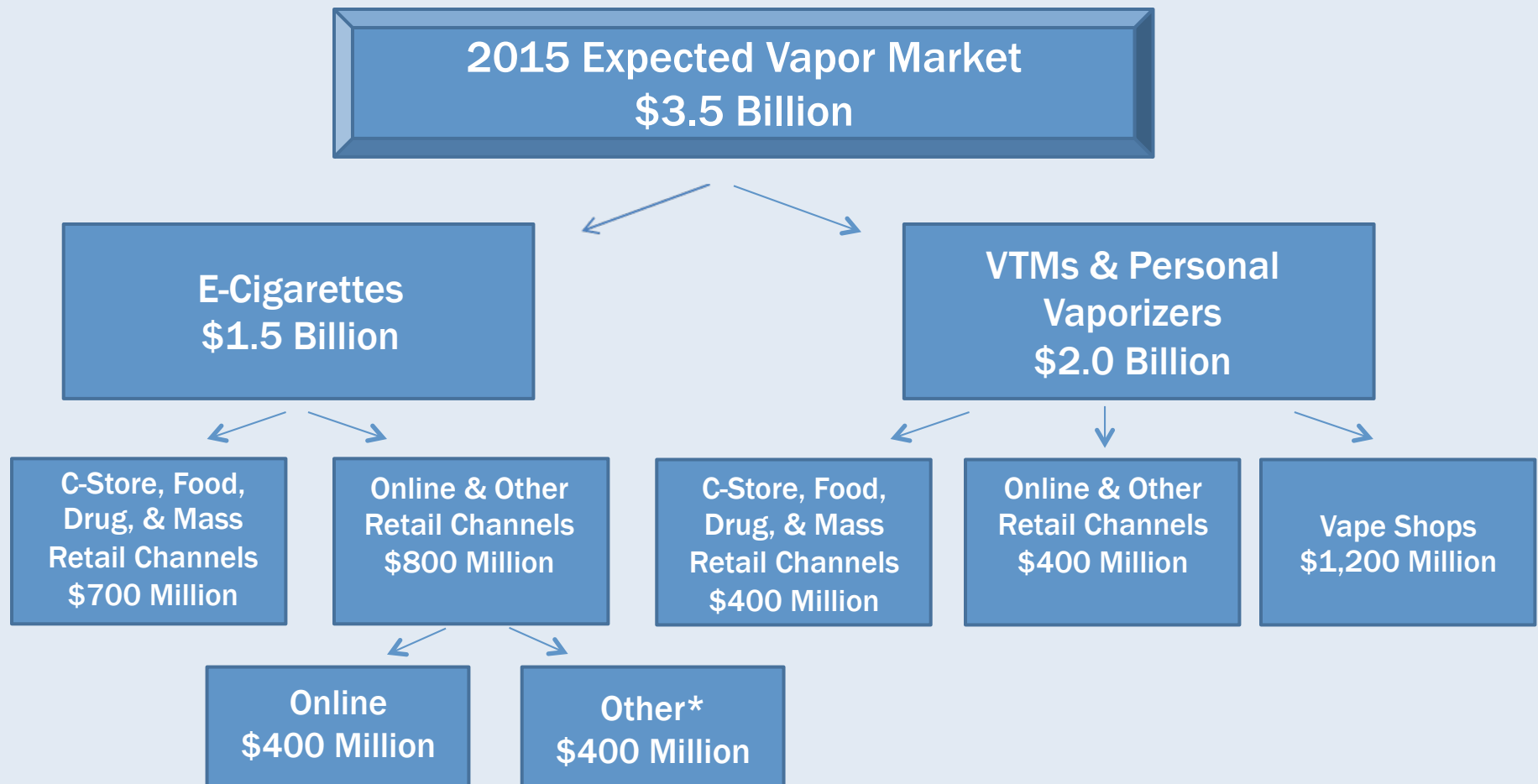
STATUTORY DEFINITION – TOBACCO PRODUCTS

“...Tobacco products excludes any tobacco product that has been approved by the United States Food and Drug Administration for sale as a tobacco cessation product...”

WHAT IS TAXABLE IN MINNESOTA?

	Item	Taxable or Not Taxable?
Disposables →	One time use e-cigarette	Taxable
VTMs →	Reusable/refillable device & components	Not Taxable
Rechargeables & E-liquid for VTMs {	Cartridges/e-juice containing nicotine	Taxable
	Cartridges/e-juice with 0% nicotine	Not Taxable

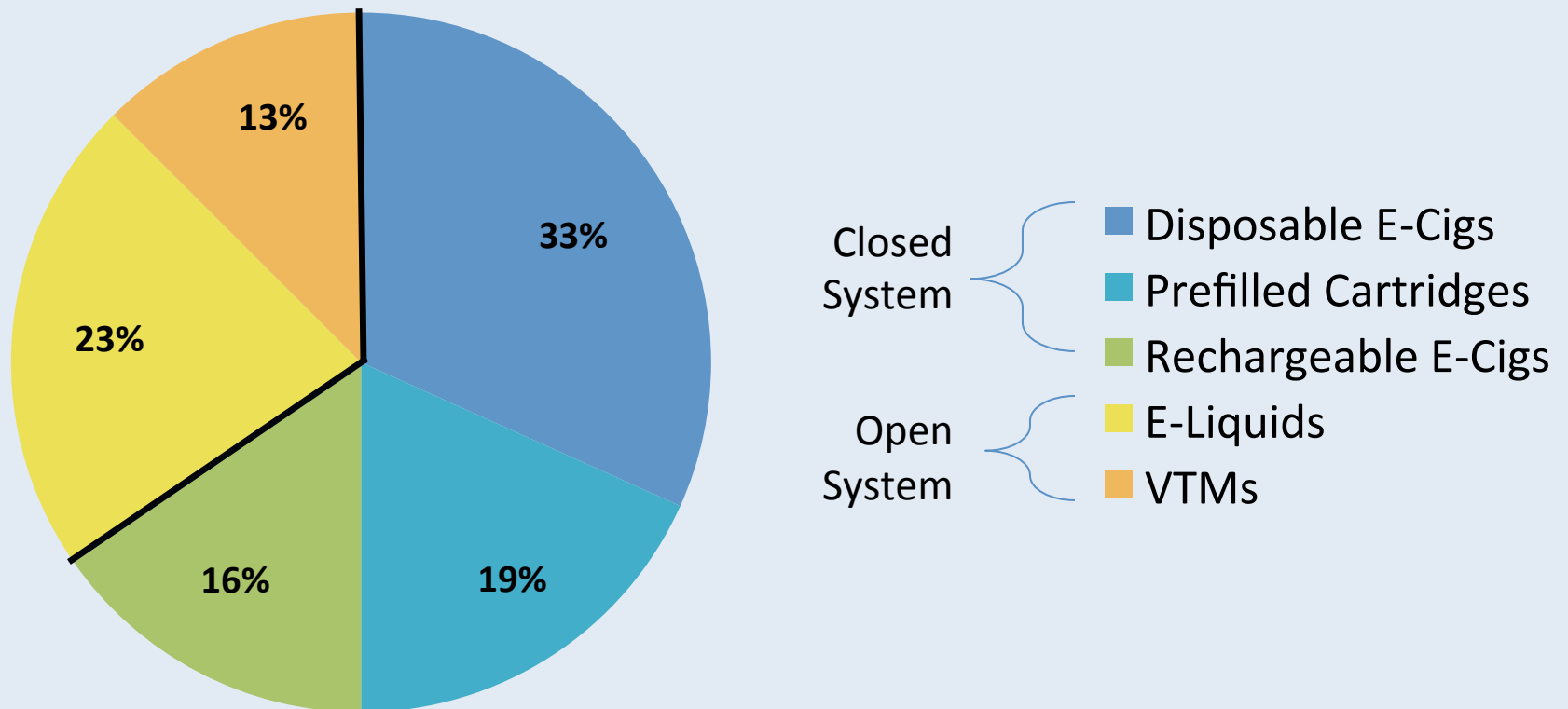
U.S. VAPOR MARKET BREAKDOWN



*Includes non-tracked channels, such as tobacco-only outlets and other e-cig retail locations.

Source: NATO E-Cig and Vape Panel: Key Trends Facing the Industry, Wells Fargo Securities, April 2015

CONVENIENCE STORE SALES BY CATEGORY



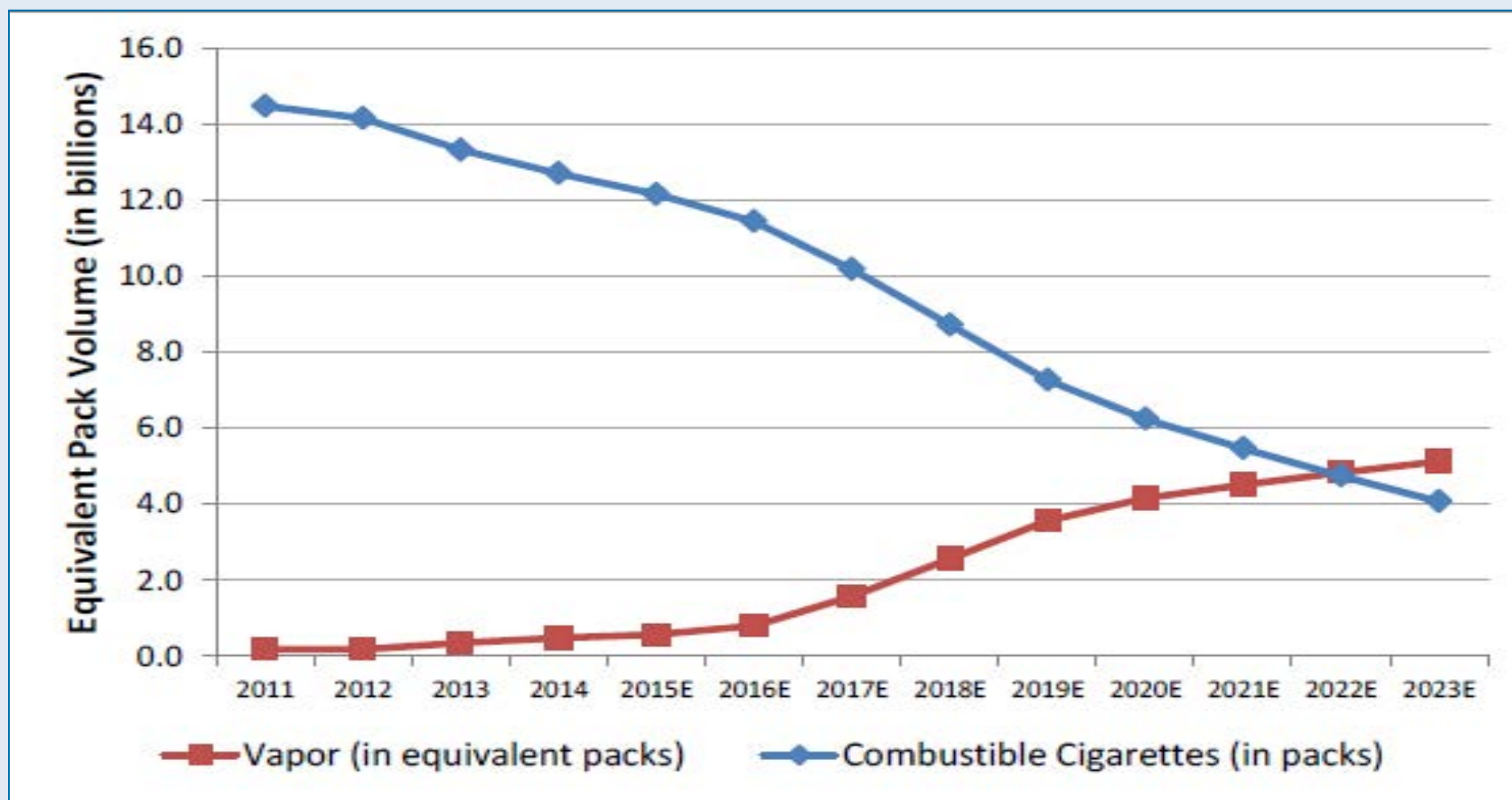
Source: NATO E-Cig and Vape Panel: Key Trends Facing the Industry, Wells Fargo Securities, April 2015

INDUSTRY FORECASTS

- High growth rates
- Driven by open systems
- Could outsell traditional tobacco products within decade
 - Retailers expected to embrace vapor, narrowing profit margins for traditional cigarettes
 - Surpass conventional cigarettes by 2023 (Wells Fargo)
- Expected \$3.5 billion industry in 2015
- \$50 billion global industry by 2030 (Euromonitor)

MN Dept. of Revenue does not separately forecast vapor products.

WELLS FARGO HISTORICAL & ESTIMATED VAPOR CONSUMPTION, 2011-2023E



Source: NATO E-Cig and Vape Panel: Key Trends Facing the Industry, Wells Fargo Securities, April 2015

RECENT TRENDS: SO FAR IN 2015

- **Growth slowdown at c-stores and mass retailers**
 - Primarily affecting closed system products
 - Lower prices
- **Non-Nielsen tracked channels - vape shops/online sales**
 - Primarily affecting open system products
 - Estimated growth still strong for this segment
 - Difficult to track
- **Future becoming more uncertain for vapor**

FORECAST INFLUENCES

- **FDA Regulations in approval phase**
 - Strict and costly requirements could push small companies out
 - Opportunity for Big Tobacco to increase market share
- **Taxation**
 - Over 20 states had vapor tax proposals last legislative session
- **Other Regulation**
 - Higher tobacco minimum age laws
 - Bans from public areas
 - Flavored products bans

TYPES OF VAPOR TAXES

■ Ad valorem

- Tax on wholesale price of products containing or derived from tobacco
- Preferred by sellers of open systems
- e.g. Minnesota's 95% tax on wholesale products

■ Unit tax

- Assessed on each milliliter of e-liquid OR each milligram of nicotine
- Preferred by sellers of closed systems
- e.g. North Carolina's \$0.05 per milliliter tax

STATES WITH VAPOR PRODUCT TAXES

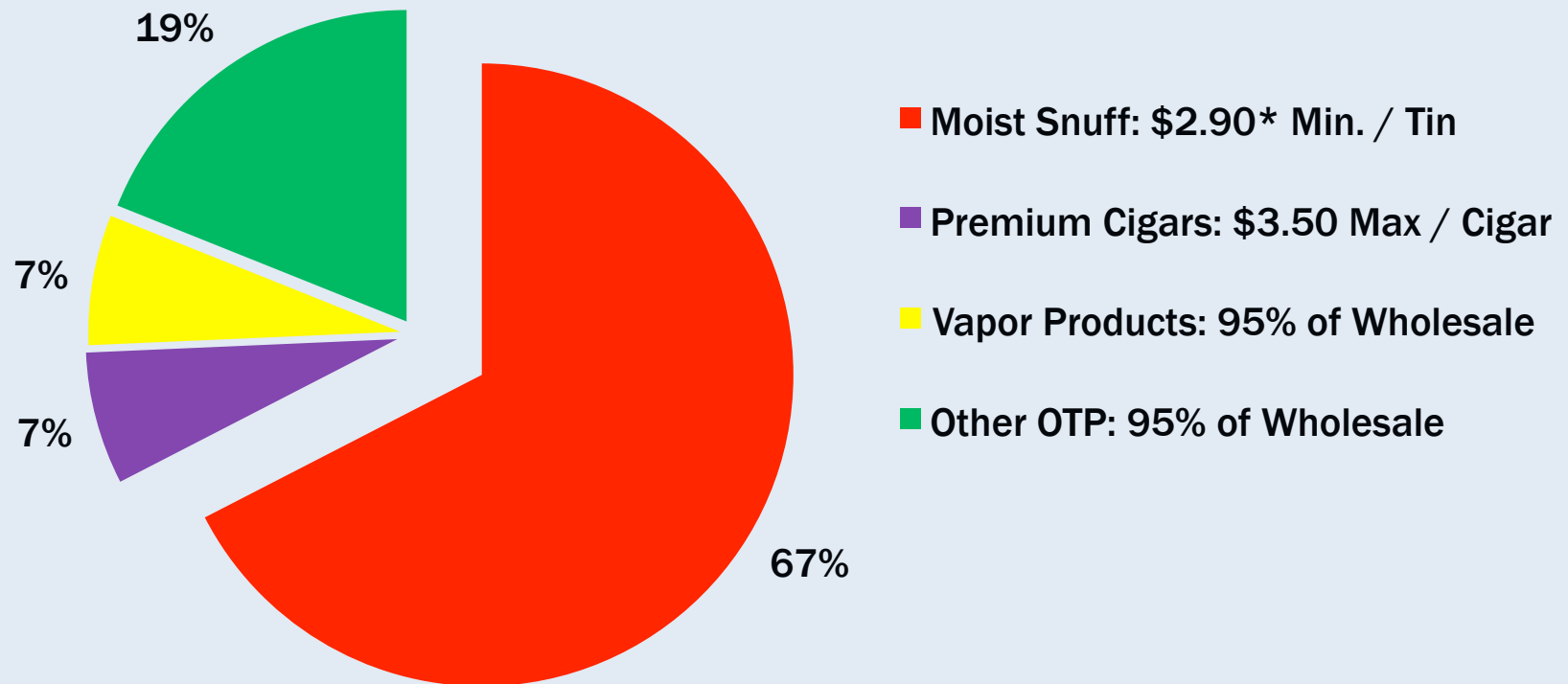
- **Minnesota**
 - Effective August 1, 2010
 - 95% of wholesale price, effective July 1, 2013
- **North Carolina**
 - Effective June 1, 2015
 - \$0.05 per milliliter on consumable vapor products
- **Louisiana**
 - Effective July 1, 2015
 - \$0.05 per milliliter on consumable vapor products
- **Kansas**
 - Effective July 1, 2016
 - \$0.20 per milliliter on consumable vapor products

2015 MN SESSION: REVENUE ESTIMATE ASSUMPTIONS

- Multiple perspectives
 - National study on fiscal impacts from Arizona: \$9.7m for MN
 - Tax returns key term search: \$4m
 - Distributor survey of actual tax paid for vapor products: \$5.3m
- Most of tax from closed system products, which made up most of the \$5.3m
- Vape shop adjustment: 5% increase
- Estimated MN tax collections = \$5.6 million in FY 2014

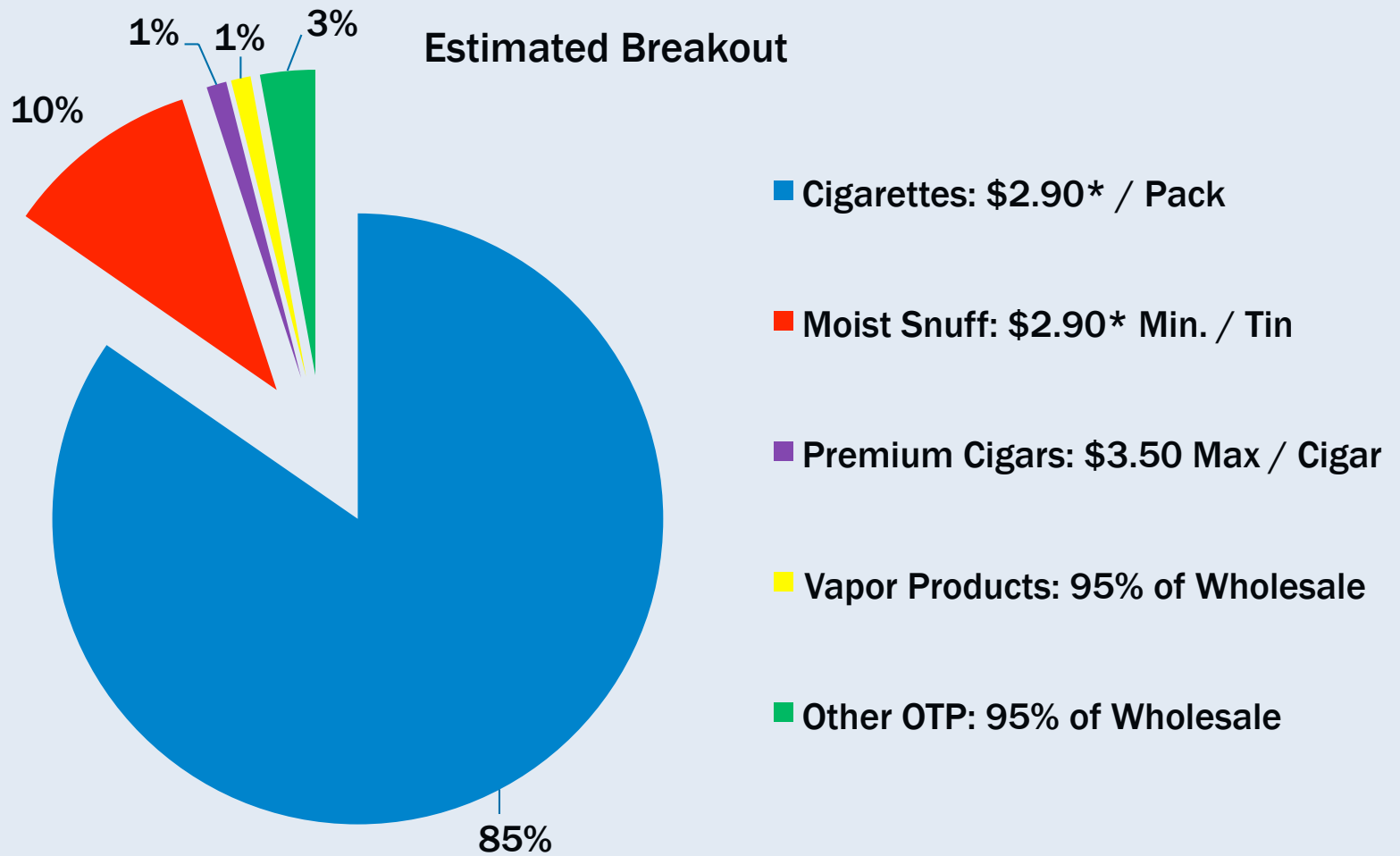
MN OTP TAX: \$78M IN FY2014

Estimated Breakout



*Indexed for Inflation

MN CIG/OTP TAX: \$510M IN FY2014



*Indexed for Inflation

2015 MN SESSION: \$0.30/ML TAX PROPOSAL ASSUMPTIONS

- **Converting a wholesale tax to retail dollar amounts**
 - Retail mark-up of 20%
- **65% closed system vs. 35% open system**
 - Going forward: more equal split
- **Per unit pricing/sizes**
 - Single-use e-cig (1 ml)
 - Disposable cartridge (1 ml)
 - E-liquid bottles (15 ml)
- **10% estimated annual growth**
- **FY15 revenue: \$2m from proposed \$0.30/ml tax**
 - Down from expected \$6.1m under current 95% tax

HEALTH EFFECTS

- **CA Dept. of Public Health findings:**
 - Addictive, due to nicotine
 - Can affect brain development in teens
 - Harmful for expectant mothers
- **Chemical composition inconsistent (FDA)**
 - Some may contain toxic chemicals
- **Major manufacturers developing next generation “reduced risk” e-cigarette**

HEALTH EFFECTS (CONTINUED)

- Long-term effects unknown (FDA)
 - Some reports/studies are contradictory
- Some (Brunori) suggest subsidizing e-cigarettes to convert smokers, reduce smoking externalities

MN Dept. of Revenue does not have a position on whether vapor products are safer than cigarettes or not.

HEALTH RELATED REGULATIONS

- **46 states ban sales to minors**
 - Not banned in Maine, Massachusetts, Michigan, or Pennsylvania
- **6 states require child-resistant packaging**
- **5 states prohibit use in specific locations**
- **Local flavor bans**
- **Higher tobacco minimum age laws**

E-CIGARETTE DEBATE

- Originally developed as smoking cessation device
- FDA regulations pending
- Could prolong nicotine addiction (Bloomberg Business)
- Lack clear evidence on effectiveness

MN Dept. of Revenue does not have a position on whether vapor products can serve as a smoking cessation device or not.

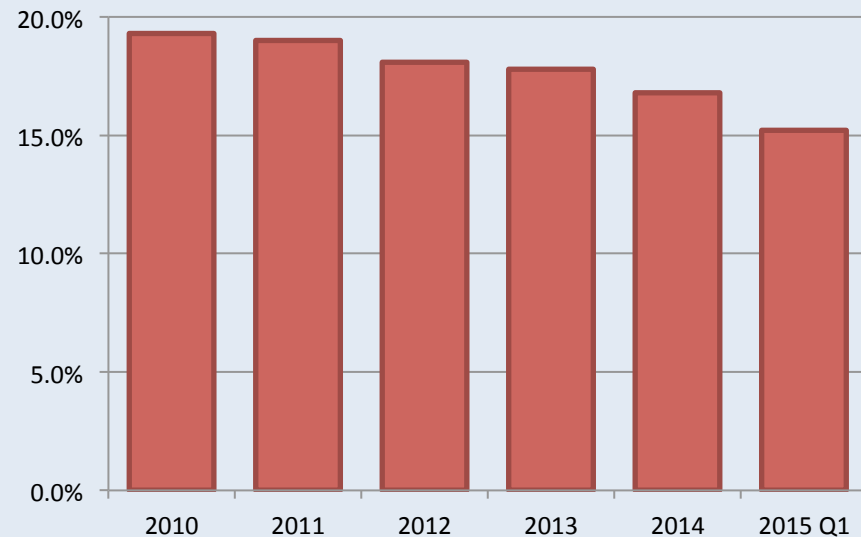
ADDITIONAL RESEARCH

- **2013 University of Auckland study: E-cigarettes as effective as nicotine patches**
- **2015 California Dept. of Public Health (CDPH) report: Marketing driving increasing e-cigarette use among teens, may predispose to future tobacco dependency**
- **2015 Public Health England (PHE) study: E-cigarettes 95% safer than cigarettes. Recommends doctors prescribe for smoking cessation**
 - **Critics question PHE study evidence**

OUTLOOK

- **Conventional cigarettes**
 - Recent accelerated declines in smoking rate
 - Increased bans on public smoking
 - Intensifying anti-smoking campaigns
 - Rising cigarette prices
- **E-cigarettes & vaping**
 - Inconclusive health evidence
 - Increased regulations
 - High growth expected to continue

**United States Adult Smoking Rate
As Percent of Population**



Source: Center for Disease Control

CONCLUDING THOUGHTS

- Currently modest revenue from taxing e-cigarettes
- Technology changes/new products will evolve
- Pending FDA regulations – potentially dramatic impact
- Forecast and growth for e-cigarettes is uncertain
- Current vaping price advantage
- Uncertain cigarette tax revenue

ADDITIONAL INFORMATION

- MN Department of Health:
<http://www.health.state.mn.us/divs/chs/tobacco/teenstobaccodata110714.pdf>
- FDA E-Cigarette Website:
<http://www.fda.gov/NewsEvents/PublicHealthFocus/ucm172906.htm>
- CDC, “Tobacco Use among Middle & High School Students” (2015):
http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6414a3.htm?s_cid=mm6414a3_w
- Reuters/Ipsos Poll on Adult E-Cigarette Use (2015):
<http://www.reuters.com/article/2015/06/10/us-usa-ecigarette-poll-analysis-idUSKBN00Q0CA20150610>
- University of Auckland Study (2013):
[http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736\(13\)61842-5.pdf](http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(13)61842-5.pdf)
- California Department of Public Health Report (2015):
<http://www.cdph.ca.gov/programs/tobacco/Documents/Media/State%20Health-e-cig%20report.pdf>
- Public Health England Study (2015):
[https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/457102/
Ecigarettes_an_evidence_update_A_report_commissioned_by_Public_Health_England_FINAL.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/457102/Ecigarettes_an_evidence_update_A_report_commissioned_by_Public_Health_England_FINAL.pdf)