Hi Everyone,

I want to thank Beth Freeborn for recruiting me to present our data on CL from our VisionWatch program. Some of you may be familiar with our VisionWatch consumer survey program. The program interviews a demographically balanced sample of ~120K US adult consumers annually and asks them all sorts of questions about eyecare and eyewear. In addition to tracking usage patterns for different types of eyewear, we also track recent and upcoming sales by product category and report on several aspects and attributes of the recent eyewear purchase. VisionWatch has been in existence since 2001 and many of our datapoints do go back to 2004 and prior so we’ll have a lot of data to go over this morning to help set the background or environment that the industry operates in. We will also go over quite a bit about consumer demographics as it relates to the CL business to show you where recent growth has occurred and where opportunities still exist in the market.
1. This graph depicts the number of total adult contact lens users in the U.S. trended over time and a breakdown by major demographic for the 12ME period Dec’17. As of Dec’17 there were 41.4 million American adults that wore contact lenses at least part of the time. About 40% of those users wear CL as their primary or exclusive means of vision correction—while the majority of CL users (60%) wear CL in conjunction with other forms of vision correction—principally eyeglasses or OTC reading glasses. There are also another 3.8 million children under the age of 18 wearing CL at least part of the time. Right now about 16.4% of the US adult population wears contact lenses (and about 4.9% of all children under the age of 18).

2. Over the past few years, CL use has increased at a staggering rate—far higher than any other vision care market in the US. Over the past year we have seen net increase of 1.3 million CL users and if you go back to 2004, we have seen a net increase of 10.1 million adults users in the USA—an aggregate increase of 32.4% over the 13 year period of time. On an annual basis that indicates that CL user growth increased by an average of 2.2% per year—growing much faster than the typical rate of population growth over that same period of time (~1.5%).

3. A large majority of CL users (47.9%) are between the ages of 18‐34 years old with over ¼ of the population in this age group wearing CL. Since 2004, a large majority of the growth in CL usage has been among the 18-34 year old demographic in the USA—accounting for 52% of the total growth in usage over the past 13 years. However, despite the heavy reliance on younger users for aggregate growth, the largest relative growth we have observed has been in the over 45 year old age demographic—which has seen the number of CL users more than double over the past 13 years—thanks primarily to the introduction of several new CL brands and products aimed at the MF and presbyopic CL user.

4. In addition to well defined usage trends by age, there are also emerging usage trends based on other demographics. For instance, compared to the rest of the US adult population, CL usage since 2004 has increased most for women, people from higher income households, people from the NE region of the country and people with some type of vision insurance or MVC coverage. We are also seeing a stronger rise in the number of CL-only users versus CL users wearing and using other forms of vision correction in conjunction with CL.
1. Consumers have a wide variety of usage patterns when it comes to CL. We’ll discuss modality and daily/weekly/monthly/specialty lenses in a few moments, but as this graph indicates, most CL users (19.7 million adults) wear CL “all day while NOT sleeping”. Another 11 million users wear CL all day—including wearing CL while sleeping. Close to 7.3 million US adults wear CL only occasionally—usually for specific focused activities. As you might suspect, most of those 7.3 million occasional users are also wearing Rx EG or OTC readers in conjunction with their occasional CL usage.

2. From 2004 to 2017 the largest observed relative increase in CL usage (+65.7%) occurred among “occasional” CL users. As you might suspect, most of these additional users were also wearing other forms of vision correction. Moreover, a slight majority of the increase in this usage type occurred among adults over the age of 45 years old.

3. The next largest increase in CL usage occurred among adult wearing CL all day but not while sleeping (a 55% relative increase in usage, mostly younger users under the age of 45) over the past 13 years. Finally, even though there are more CL users in 2017 wearing CL all day and also while sleeping (compared to the number of users in 2007), that only represents a 41.1% aggregate growth in usage over the past 13 years—with that growth occurring equally among most demographics of CL users. This chart is also a good graphical depiction of total CL usage growth over the past 13 years with most of that growth occurring among occasional or all-day / no sleeping CL users.
The total vision care industry generated $40.38 billion in revenue during the 12ME period Dec'17—rising by 0.1% over previous year totals and up by 21.4% over 12ME Jun'08 retail sales totals—before the recession set in. A couple items worth noting. First, these dollar totals are in current dollars that are not adjusted for inflation, and represent consumer-reported prices for eyewear and eyecare. For CL in particular, sales of CL to adults in the US generated $5.01 billion in sales during the 12ME period Dec'17—about 1/8 of all vision care revenue when looking at sales of eyewear products and eye exams. Contact lens sales increased by 4.5% over the 12ME period Dec'17 and increased by 7.5% over the 24ME period Dec'17. This is to be expected given then large increase in users that we have seen over the past couple years. Over the past two years, sales of CL have increased most among women, adults between the ages of 35 to 54 years old, adults from higher-income households, adults from the MP region of the USA and adults without vision insurance coverage.

1. **Contact Lens Market: Trended and Forecast by Retail Channel**

<table>
<thead>
<tr>
<th>Retail Channel</th>
<th>12ME Dec15</th>
<th>12ME Dec16</th>
<th>12ME Dec17</th>
<th>12ME Dec18 (Projected)</th>
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</thead>
<tbody>
<tr>
<td>All CL Sales</td>
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<td>$5,218.75</td>
<td>$5,195.1</td>
<td>$2,052.24</td>
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<tr>
<td>Mass Merchants / Wholesale Clubs</td>
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<td>$958.54</td>
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<tr>
<td>Conventional Chains</td>
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<td>$1,247.9</td>
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<td>Independent ECPs</td>
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<td>$841.34</td>
<td>$786.0</td>
<td>$841.34</td>
</tr>
<tr>
<td>Online / Internet</td>
<td></td>
<td></td>
<td></td>
<td>$786.0</td>
</tr>
</tbody>
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   *In $Millions*

   *Inflation not taken into consideration

   *All CL Sales Independent ECPs Conventional Chains Mass Merchants / Wholesale Clubs Online / Internet

   *12ME Dec15* *12ME Dec16* *12ME Dec17* *12ME Dec18 (Projected)*

   **$5.01 Billion:** +4.1% from 12ME Period Dec’16

2. **In terms of sales by distribution channel, about 85% of the 28,500 independent ECPs in the USA generating the largest amount of CL sales in the US (according to the Jobson Optical Census of Retailers). As an aggregate group independents accounted for just over 39% of all CL sales revenue during the 12ME period Dec’17. Sales of CL through independent ECPs were up by 4.0% during 2017. The typical independent ECP CL customer in the USA is more likely to be female, from a higher income household, possess MVC, and view eyewear/eyecare as a medical device/health accessory.

3. **Mass merchants and wholesale club retailers generated $1.29 billion worth of CL sales during the 12ME period Dec’17—up by 3.7% over the past year. Among mass merchants, CL sales are strongest among younger consumers (under the age of 45, consumers from lower income households (under $60K annually), consumers from the SE and MW regions of the country and consumers without MVC coverage. After the mass/club channel, conventional optical chains sold just over 18% of all the CL in the USA last year and generated $958 million in sales at the retail level. That figure is up by 4.2% over last years CL revenue thanks to rising purchases among men, consumers between the ages of 35 to 54 years old, and people from higher income households.

4. **The fastest growing distribution channel for CL sales in the USA was the online / Internet channel. In 2017, online retailers generated $786 million in sales—growing by 4.9% during the 12ME period Dec’17 and growing by 11.1% over the 24 month-ending period Dec’17. Even though only one-fifth of CL lens consumers are buying their lenses online, another one-fifth of all CL buyers are using the Internet to research and conduct “window shopping” functions before eventually making a purchase in-person at a physical BAM location. Online CL sales are strongest among men, adults under the age of 35 years old, adults from higher-income households, adults from the NE region of the country and adults that view eyewear as a fashion accessory or commodity.

5. **We anticipate that 2018 CL sales revenue will be up by 4.1% over 2017 levels—leading anticipated growth for all sectors of the vision care market. We expect CL to increase by about 500K in total during 2018—less than what we observed in 2017 but still high by historical comparison. We believe CL will increase most among consumers from higher income households, with some type of managed vision care coverage. We expect usage and sales to increase among consumers that use CL as their sole means of vision correction. In terms of distribution channels, the anticipated increase in CL sales to consumers with MVC benefits and higher AHl levels, will lead to strong CL sales growth for independent ECPs in 2018 (up by 4.8% over 2017 levels), with sales among mass merchants, wholesale clubs and conventional chains varying from +3.6% to +4.0% over 2017 levels. Finally, we anticipate that CL sales through the Internet / online channel will grow by 7% over 2017 levels—thanks to repeat purchases from previous online buyers and an influx of buyers that previously purchased CL in-person from a BAM eye doctor or retail big box store.
1. One of the reasons why independent ECPs have been outperforming most of the other retail outlet types in the US is based on sheer numbers—as well as changes in those numbers over the past decade. This data comes from the Jobson Optical Census of Retailers and I have to thank Jobson for allowing this info to be shared because it shows us the retail landscape environment in the US and it is a great source of info for those folks looking to get familiar with that landscape and looking to leverage that data to help boost sales or realign sales efforts.

2. Based on the Jobson Optical Census of Retailers there are currently ~28,500 independent ECP locations operating in the US. Now for the sake of clarity, an independent ECP is defined as an optical retailer with 3 or fewer locations operated by an independent ECP (OD, ophthalmologist or optician) primarily offering exams and Rx eyewear to their customers. Those 28,500 independents represent 2/3 of all the physical BAM locations that offer Rx eyewear for sale to their patients/customers.

3. To round out the retail landscape in the US, there are about 8,100 conventional optical chain locations in the USA selling eyewear, along with 3,900 mass merchant retail locations, 1,200 wholesale club locations, and about 900 department store locations that offer Rx eyewear to their customer.

4. Since 2007 there has been a net increase of about 3,800 retail locations opened across the US. Interestingly, not only do independent ECPs account for 2/3 of all existing retail locations in the US, they also account for 2/3 of the net increase in retail locations since 2007 (a net increase of +2,500 locations from 2007-2016). The number of chains (+700 locations), mass merchants (+715 locations), wholesale clubs (+270 locations) offering eyewear for sale to their customers also increased over the past decade. The only channel that saw a net decline in the number of retail locations in existence over the past decade was department stores. Given the struggles many larger host department store chains have experienced lately, it shouldn’t be a surprise that the number of department store retail locations offering Rx eyewear to their customers has declined by 30% over the past decade (VisionWatch estimates that department store optical industry CL sales revenue is down in aggregate by about 20%—corresponding with the decline in retail locations we have observed). On the other side of the growth coin, we have seen a 10% net increase in the number of independent ECP operations to correspond to a gross 34% increase in aggregate independent ECP contact lens sales revenue over the past 10 years.
**Why do you choose to wear contact lenses rather than eyeglasses? (Among Respondents That Wear Contact Lenses)?**

1. In addition to asking consumers the same set of questions every month involving eyecare and eyewear, every month we ask a custom survey of 5-10 questions that differ every month. In February of 2017—one year ago—we interviewed 9,255 US adults—including 1,772 adult CL users in our “Fashion vs. Function” report. We asked consumers why they choose to wear one form of eyewear over another. Among the 38 million US adults that either wear CL alone or CL in conjunction with eyeglasses, there are three main, dominant reasons why consumers choose to wear CL some/all of the time rather than eyeglasses.

2. Nearly 44 percent of respondents claimed they use contact lenses rather than glasses because they feel they look better in contacts. This was certainly a common response among women, Americans from lower household incomes and Americans over the age of 45 years old. Another large portion of respondents (41.8 percent) found that contact lenses are more convenient than eyeglasses, a common response among people from the Midwest region of the US and those with some type of MVC insurance. Almost one-quarter of respondents wear contact lenses over eyeglasses because they believe glasses do not complement their active lifestyle (very common among adults under the age of 55 years old). Smaller portions of respondents prefer contacts because they believe eyeglasses too fragile and easy to damage (11.9 percent), that their lens prescription is too thick (9.2 percent), their eye care professional recommended contact lenses (3.7 percent) and/or that eyeglasses are too expensive (2.4 percent).
1. While there are 41.4 million US adults currently wearing CL in the US, there is actually a larger number of US adults (48.8 million) who used to wear CL and stopped at some point during the year. For instance, during 2017, we actually saw a total, gross increase of 2.0 million new CL in the US market (mostly adults between the ages of 18-24 years old); however, we lost ~700K users over the course of the year that stopped wearing CL as means of vision correction. While most of those adults who stopped using CL in 2017 were over the age of 45 and were already using other forms of vision correction before they decided to stop wearing CL, there are many different reasons why a consumer might stop wearing CL at some point in their life.

2. Among the 48.8 million previous users, “discomfort” was the primary reason why some consumers stopped wearing CL at some point. Over 41% of past CL stopped wearing CL because of discomfort—a more popular reason among men, adults between the ages of 35 to 54 years old, adults from lower income households and adults with some type of MVC coverage. A slightly lesser number of former CL users (29.7%—particularly men, adults under the age of 45, and people from higher-income households) had stopped wearing CL because of the “inconvenience” of wearing CL. The third most common reason for people to stop wearing CL in favor of other forms of vision correction were problems associated with dry eyes. When compared to other past CL users, dry eyes were a relatively more inhibiting factor among women, adults over the age of 35, and people from the Northeast region of the country.

3. Compared to 2007 there are fewer former users today that decided to stop wearing CL because of discomfort, inconvenience, vision clarity, the need for BF EG lenses or perceived cost. Conversely, there are relatively more people today who have stopped wearing CL because of problems associated with dry eyes, or because they had a refractive surgery procedure in the past.
1. From 2004 to 2017 the number of adult CL users in the US increased by 32%. During that same period of time, CL transactions (individual purchase transactions) increased by 41% to 97.2 million transactions per year. Finally, CL revenue increased in aggregate from $2.99 billion annually in 2004 to $5.01 billion annually in 2017—that is a 67.6% increase. That indicates that the increase in sales revenue from CL has increased for three reasons: 1. more users in the market, 2. more transactions and purchases among the users in the market each year, and 3. rising prices at the retail level thanks to a bevvy of new CL products and technology that have been developed over the past 10+ years.

2. However, that increase in performance wasn’t universal across different markets and channels (as we have seen with other CL developments today). Dollar revenue of CL sales from independent ECPs was up by 58.6% in aggregate from Dec’04 to Dec’17. Not only is that the lowest rate of aggregate growth among the major distribution channels but the number of purchase transactions among independent ECPs is only up in aggregate by 21% from ’04 to ‘17. That indicates the pricing for CL sold through independent ECPs increased more than CL prices in other channels (out-of-pocket pricing as reported by the consumer/buyer).

3. Dollar sales revenue from CL sales from ’04 to ‘17 were stronger among conventional optical chains and mass merchants (+70.3% and +79.7% respectively). Sales revenue from online / Internet sales increased more than any other channel from ‘04 to ‘17 (+160%) thanks to a high levels of both repeat/returning customers that purchased CL online in the past as well as a steady increase of new online customers that defected from BAM locations where they bought their contacts in the past.

4. In terms of specific years of good market performance, the best year for independent ECPs regarding CL sales were 2009 and 2013. For conventional optical chains the best years for sales revenue growth performance were 2005 and 2011. For mass merchant the best years for sales revenue growth were 2006 and 2008. Finally, online / Internet retailers have seen sales revenue from CL grow by an average of 10.7% per year with the best years for growth occurring in 2004, 2005, 2006 and 2013.

Annual Sample Size: 110,000+ Adults
1. This chart shows pricing for contact lenses on a per transaction basis—as well as spending per year for the typical CL user. However, because VisionWatch is a consumer-based survey, these “prices” are consumer-reported “out-of-pocket” pricing. Specifically, we ask consumers how much money they spend themselves for the contact lenses they purchased. So those prices of $51.81 per transaction and $121.00 annually per CL user includes a lot of variety in how consumers are reporting prices. Less than 25% of consumers are reporting the list price or original price paid for the lenses they bought when reporting out of pocket pricing. These consumers are in the minority in that they do not take advantage of insurance benefits, retailer/doctor specials, manufacturer rebates, or other 3rd party reimbursements. A large majority of recent CL buyers are getting some third party assistance with pricing and therefore reporting a lower price paid per transaction than consumers who pay 100% of the list/original price for their lenses. Consequently, the pricing here is not “complete” as many people would like to see.

2. However, the one trend that can easily be observed is that out-of-pocket pricing among consumers for the CL they buy has increased steadily year-over-year since 2004. Part of that price increase represents general price inflation pressure, but a majority of that price increase is coming from the introduction of new CL brands and technology that command a higher price in the market—both a higher list/original price and a higher price paid “out-of-pocket” by the consumers themselves. In fact, from ’04 to ‘17 the amount paid out of pocket per transaction increased in aggregate by 22.2% (~1.7% annually) while the amount paid out-of-pocket over the course of a given year increased by 31% in aggregate (~2.4% annually).

3. When compared to other optical markets, prices for OTC readers and Rx lenses have risen faster than pricing for CL, while pricing for ophthalmic frames, plano SG and eye exams has risen less than CL over the past 13 years. Some interesting points when it comes to CL “out-of-pocket” pricing over the past 13 years. Pricing for CL users over the age of 35 have risen stronger than pricing among younger consumers.
1. According to VisionWatch, about 126.6 million American adults possess some type of managed vision care (MVC) coverage—up by 14.5 million over the past 10 years (+13.5%)—before the recession set in.

2. Among the contact lens purchase transactions in 2017, just over 51.7% involved some type of third party reimbursement insurance coverage. The amount / percentage of CL purchased with some type of third party insurance benefit has increased by 6% to 8% annually. In fact, since 2007, the number of CL purchased with some type of insurance coverage has increased by 61%.

3. About one-quarter of all CL purchases (24.4%) involved the use of a standard MVC plan (VSP, EyeMed, Spectera/UHC)—up by 5.6% over the past year and up by 65% over the past 10 years. Other types of insurance commonly used by CL buyers over the past year include standard health / medical insurance plans (usually provided by a standard MVC provider), a state sponsored benefit (Medicare/Medicaid, VA benefits, etc...), discount plans (i.e. AARP, AAA, etc...), and tax deferred FSA/MSA/HSA accounts. Growth of CL insurance sales have grown most over the past 10 years among consumers using a standard stand-alone MVC plan and using a tax deferred FSA/MSA/HSA plan (+125% usage between 2008 and 2017).

4. Demographically, CL sales involving MVC or vision insurance were stronger among men, adults over the age of 35 years old, adults from lower-income households, adults that work full-time, and adults that wear multiple forms of vision correction.

5. When examining MVC CL sales by distribution channel, more than 61% of all CL sold with the assistance of insurance during the 12ME period Dec’17 were purchased through an independent ECP retailer. About 32% of MVC CL purchases occurred at either a conventional optical chain (17%) or a mass merchant / wholesale club retailer (15%). Over the past 10 years the number of MVC CL sales among independent ECPs has grown by almost 75%, while sales of CL involving insurance benefits through other outlets and retailers are only up 35% in aggregate over the past 10 years.
1. In our monthly VisionWatch survey, in addition to tracking recent purchases at a retail level we also inquire about different attributes associated with the lenses purchased. For instance, as of Dec’17, a strong majority of the CL users in the US (84.8%) wear soft lenses. About 6.5% of all CL users wear rigid lenses and 3.1% wear semi-rigid lenses. Hard/rigid lenses were more popular among older CL users and users from higher-income households. Since 2007 rigid lenses and semi rigid lenses have become more popular among CL users—with usage increasing by more than 25% in aggregate over the past 10 years.

2. We are also seeing more multifocal CL users in the US recently (thanks to the large increase in users over the past 10 years over the age of 45 years old). Currently about 11.6% of CL users in the US wear multifocal CL. Additionally, about 16.2% of all current CL users (especially women, people from higher income households, and people with MVC coverage) wear toric lenses (declining by about 6% from the number of toric lens users in 2007).

3. Some other interesting attributes of CL users: about 10.5% of users only wear CL in one eye (the remaining 89.5% wear CL in both eyes), 12.2% of CL users wear CL to change or enhance eye color. Both of those figures have remained relatively constant and stable over the past 10 years.

4. Perhaps the largest and most significant change to impact the CL market over the past 10 years has been the steady and strong movement of consumers away from weekly/2-week CL to daily disposable lenses and movement, to a lesser degree, to monthly CL. Currently about 28.7% of users wear daily disposable CL, with 22.3% wearing weekly CL, 39.8% wearing monthly lenses and 9.2% wearing GP/specialty/custom contact lenses. Because of the large increases in total CL use over the past 10 years (+32% increase in aggregate usage), usage for just about all lens-replacement types have increased from 2007 to 2017. The largest increases have been in daily disposable CL use which has seen usage increase in aggregate by more than 275% in the past 10 years. Monthly CL usage is also strong with the total number of monthly CL users growing by more than 50% in the past 10 years. Unfortunately, much of that increase in daily and monthly lens come at the direct expense of weekly/biweekly CL users and GP/specialty/custom CL, which has seen usage fall in relative terms over the past 10 years.
1. As this chart indicates, some people do not follow the recommended replacement guidelines for replacing their CL on a regular basis. Specifically, about 10% of people who wear “daily” disposable CL lenses are wearing those lenses longer than recommended. In fact, about 12% of all CL users in general are extending the use of their lenses to a time longer than the recommended or prescribed replacement frequency.

2. Generally speaking, younger CL users, users from lower-income households and users who are new to wearing CL (have been wearing for less than two years in total) are all more likely than other consumers to extend the use of their lenses beyond the recommended amount. On the bright side, since TVC started tracking this issue back in 2011, it appears as if fewer consumers / CL users are extended their use of CL when compared to just six years ago.
1. There were 114.9 million US adults that received an eye exam during the 12ME period December 2017. That flat (0.0% growth when compared to the number of total exams administered in 2016).
2. Among current CL users, there were 34 million exams administered in 2017—indicating that close to 82% of users have had an exam within the past 12 months. Moreover, the number of exams administered to CL users in 2017 was up by 3.1% during 2017—one of the handful of growth segments for the eye exam sector.
Exam Location vs. Purchase Location for CL

1. Nationally, independent ECPs accounted for 69.8% of the 114.9 million adults eye exams administered nationally in 2017. Among the 34 million exams administered among current CL users in 2017, 63.3% occurred at an independent ECP location—with the remaining exams occurring among conventional chains (14%), and mass merchants (8%). When you compare these CL user eye exam shares by market channel with CL transaction share by market channel it becomes readily apparent that there are a large number of “walk-outs” from independent ECP operations. A “walk-out” is defined as a patient that gets their eyes examined at one location and then takes their prescription and purchases CL from another location.

2. If you run the calculations above, it will show that ~38% of those CL users that get their eyes examined at an independent ECP will take that prescription and buy CL from a different location. That is higher than the ~30% walkout rate for eyeglasses purchases that we have observed in VisionWatch. In descending order, most of those consumers will either go to the following location types below to buy their CL:
   1. 46% Internet retailers (either Internet-only retailers or internet retailers that also have a BAM presence)
   2. 20% BAM mass merchant retailer
   3. 16% BAM conventional chain retailer
   4. 10% BAM wholesale club retailer
   5. 5% Other BAM Independent ECP retailer
   6. 3% Don’t Know / Not Sure / “Other”

3. As we have observed with other types of eyewear over the past decade, the walk-out rate for independent ECPs was rising from 2004 to 2008. From 2009 to 2012 (when the industry experienced a slowdown in total) independent ECPs did a good job of reducing and preventing walk-outs and the walkout rate for CL buyers declined. However, as independents started to get busier in 2013 onward, the walkout rate has increased again—approaching levels that we saw in 2006/2007 before the recession set in.

4. Demographically, most walk-outs tend to be male, younger (18-34 years old), from lower income households (under $60K per year), reside in the NE and MP regions of the country and do not have any type of MVC / vision insurance. Moreover, walkouts are far more likely to view eyewear as a commodity device / fashion accessory rather than a medical device / health accessory. These demographics have not changed much over the past 10 years; however, there is certainly a difference in where walk-out are now going to buy their CL now. The number of people walking out with their Rx to an internet / online retailer has more than doubled in just 10 years (from 22% of independent ECPs walk out in 2007 to 46% of independent ECP walkouts in 2017). Walkouts defecting to the Internet are more likely to be younger than walkouts that take their CL Rx to a BAM retailer. Internet walkouts are also more likely to come from a higher-income households, more likely to have higher education levels and more likely to be buying other items (clothing, entertainment, food, etc…) online regularly and not just CL.

Annual Sample Size: 110,000+ Adults
QUESTIONS?