Maryland
DEPARTMENT OF HEALTH
Larry Hogan, Governor · Boyd K. Rutherford, Lt. Governor · Robert R. Neall, Secretary

January 3, 2020

The Honorable Larry Hogan
Governor
State of Maryland
100 State Circle
Annapolis, MD 21401-1991

The Honorable Thomas V. Miller, Jr.
President of the Senate
Maryland General Assembly
H-107 State House
Annapolis, MD 21401-1991

The Honorable Adrienne A. Jones
Speaker of the House
Maryland General Assembly
H-101 State House
Annapolis, MD 21401-1991

Re: House Bill 589 (2019) – Report on Audit of Pharmacy Benefits Managers that Contract with Managed Care Organizations; Process for Appealing Decisions

Dear Governor Hogan, President Miller, and Speaker Jones:

Pursuant to House Bill 589 (Chapter 534 of 2019 Laws), the Maryland Department of Health (Department) is required to provide the results of the audit of pharmacy benefits managers (PBMs) that contract with managed care organizations (MCOs). Additionally, the Department is required to submit a report containing recommendations for establishing a process for appealing decisions made in accordance with contracts between a PBM and a MCO.

The Maryland Medical Assistance Program (Medicaid) contracted with an independent auditor, Myers and Stauffer (MS), to conduct an audit of Maryland Medicaid participating PBMs. The purpose of the audit was to determine if there is a spread pricing model and if so, the amount of the spread. MS began work on the audit in April 2019.

This report provides:

- A summary and analysis of the audit findings;
- Options to address small pharmacy concerns;
- The Department's recommendation for an appeals process;
- The audit from Myers and Stauffer;
- A chart of small pharmacy openings and closings from CY 2016 through 2018 by county; and
- Maps of all pharmacies in the State of Maryland.

If you have any questions regarding this report, please contact me or my Chief of Staff Tom Andrews at 410-767-0136 or Thomas.Andrews@maryland.gov.

Sincerely,

Robert R. Neall
Secretary

MARYLAND'S 2019 REPORT ON THE MARYLAND MEDICAL ASSISTANCE PROGRAM AND MANAGED CARE ORGANIZATION THAT USE PHARMACY BENEFITS MANAGERS – AUDIT AND PROFESSIONAL DISPENSING FEES

House Bill 589, Chapter 534 of the Acts of 2019

Robert R. Neall
Secretary

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Introduction

House Bill 589 (2019) requires the Maryland Department of Health (the Department) to provide the results of an audit of Pharmacy Benefits Managers (PBMs) that contract with Managed Care Organizations (MCOs). The purpose of the audit is to determine the amount of Medicaid funds used to reimburse MCOs, PBMs, and pharmacies, as well as the amount of funds received by each respective party. The results of the audit must be provided to the General Assembly by December 1, 2019.

Additionally, HB589 requires the Department, in consultation with the Maryland Insurance Administration (MIA) to develop recommendations for establishing a process for appealing decisions made in accordance with contracts between a PBM and MCO, no later than January 1, 2020.

Background

In 2015, the General Assembly passed HB1290 to ensure Medicaid recipients who were enrolled in MCOs had reasonable access to pharmacy services. In late 2017 and 2018, small pharmacies[1] complained to the Governor, the Department, the Maryland Insurance Administration (MIA) and the General Assembly that they are being put out of business or were forced to sell their stores to large chain drug stores because the PBMs are not paying them enough money per prescription. The small pharmacies asserted that if Medicaid were to pay them at the fee-for-service (FFS) rates, they would be made 'whole'. The General Assembly passed HB589 (2019), along with two other PBM-related bills in order to begin to address the problem.

The Department contracted with independent auditor, Myers and Stauffer LC (MS) to complete the required audit in April 2019.

Audit Summary

The audit determined that there is a spread pricing model (i.e. arrangements where there is a difference in reimbursement between the MCO, PBM, and pharmacy) and all 9 MCOs used that model in CY 2018. In CY 2018, MCOs paid PBMs $690 million and PBMs paid pharmacies $618 million, a difference of $72 million (the spread). This amount includes remuneration to PBMs for the services they provide to MCOs (including overhead and fees), as well as profit. However, the Department is unable to determine what portion of the $72 million is profit for the PBMs. The average spread pricing per claim is $6.96 for all PBM-related claims, representing 10.4% of the total MCO payments to the PBMs.

[1] Defined as three stores or less. This definition is based on self-reported data from small and large pharmacies to the National Council for Prescription Drug Programs (NCPDP).

The Department analyzed the bills post-session, as well as the audit results, and required the MCOs to eliminate spread pricing by CY 2021. The Department also inserted language requiring the MCOs to implement a pass-through reimbursement model (i.e. requires the PBM to charge a managed care plan the exact amount the PBM pays for prescriptions and dispensing fees). Additionally, MCOs will be responsible for renegotiating their administration fees with their PBMs under the new pass-through model. Those figures will be given to the Department, who will, in turn, provide them to our actuaries to determine an appropriate administration fee for all MCOs/PBMs. Lastly, the Department continues to explore options for ensuring access to pharmacy services.

Small Pharmacy Analysis

Small pharmacies asserted that if they were paid at the FFS rate, they would be made "whole" and able to stay in business. In response to these concerns, the Department plotted all pharmacies across the state from CY 2016 to CY 2018. Data provided by the Board of Pharmacy revealed that Maryland experienced a net increase of 58 small/independent pharmacies during that time period and no county suffered a net loss. (See Appendix B). The data also showed that 93% of small pharmacies in Maryland are located in urban or suburban areas. 32 pharmacies (approximately 7%) are located in rural areas, thereby creating access to pharmacy services issues if they were forced to close. (See Appendix C).

Options to Address Small Pharmacy Concerns

Pursuant to the attached audit results, concerns from the small pharmacists, and an analysis of the data provided by the Board of Pharmacy, the Department has developed the following three options to address this matter:

Option 1 – Direct the MCOs to pay only small pharmacies in Maryland located in rural areas (Designation of Urban vs. Rural is based on mapping the pharmacy's "Zip Code to carrier Locality File" from the Centers for Medicaid and Medicare Services (CMS)) an access fee of $5.00 per claim. This option requires approval by CMS (for federal match), and the Department of Budget and Management (DBM) and the General Assembly (for state funds).

Option 2 – Same as option 1 but for **all** (440) small pharmacies in Maryland enrolled in Medicaid. This option also requires approval by CMS (for federal match), and DBM and the General Assembly (for state funds).

Option 3 – The General Assembly can pass legislation requiring the Department to establish an access fee of $5.00 per claim for all small pharmacies enrolled in Medicaid and located in Maryland.

The Department believes Option 1 is the best option, as it is the most fiscally responsible and ensures Marylanders have access to pharmacy services in keeping with the intent of HB1290 and HB589.

Recommendation for Appeals Process

After consultation with MIA and careful review of the totality of the circumstances, the Department recommends the legislature provide the necessary authority for the Department to set up its own appeals process if the said process proves to be necessary.

The Department inserted language into the CY 2020 contracts with the MCOs that requires them "to manage or delegate to the PBM any drug pricing appeals" (see sample language below). The Department recommends that after the MCO's process is exhausted, their final decision could be appealed to MDH and then to the Office of Administrative Hearings. It would be the responsibility of the MCO to notify the Department and pharmacies of the appeal process. There are similar regulations already in place outlining MCO dispute resolution procedures for enrollees and providers (see COMAR 10.67.09).

4. Pharmacy Benefit Managers (PBMs)

   a. To disclose for each pharmaceutical claim the amount the MCO paid the PBM, and of that amount, the amount paid to the pharmacy, including identifying the dispensing fee and the ingredient cost (if applicable), in a format and frequency determined by the Department.

   b. To comply with the recommendations stemming from the PBM audit conducted under House Bill 589 (2019).

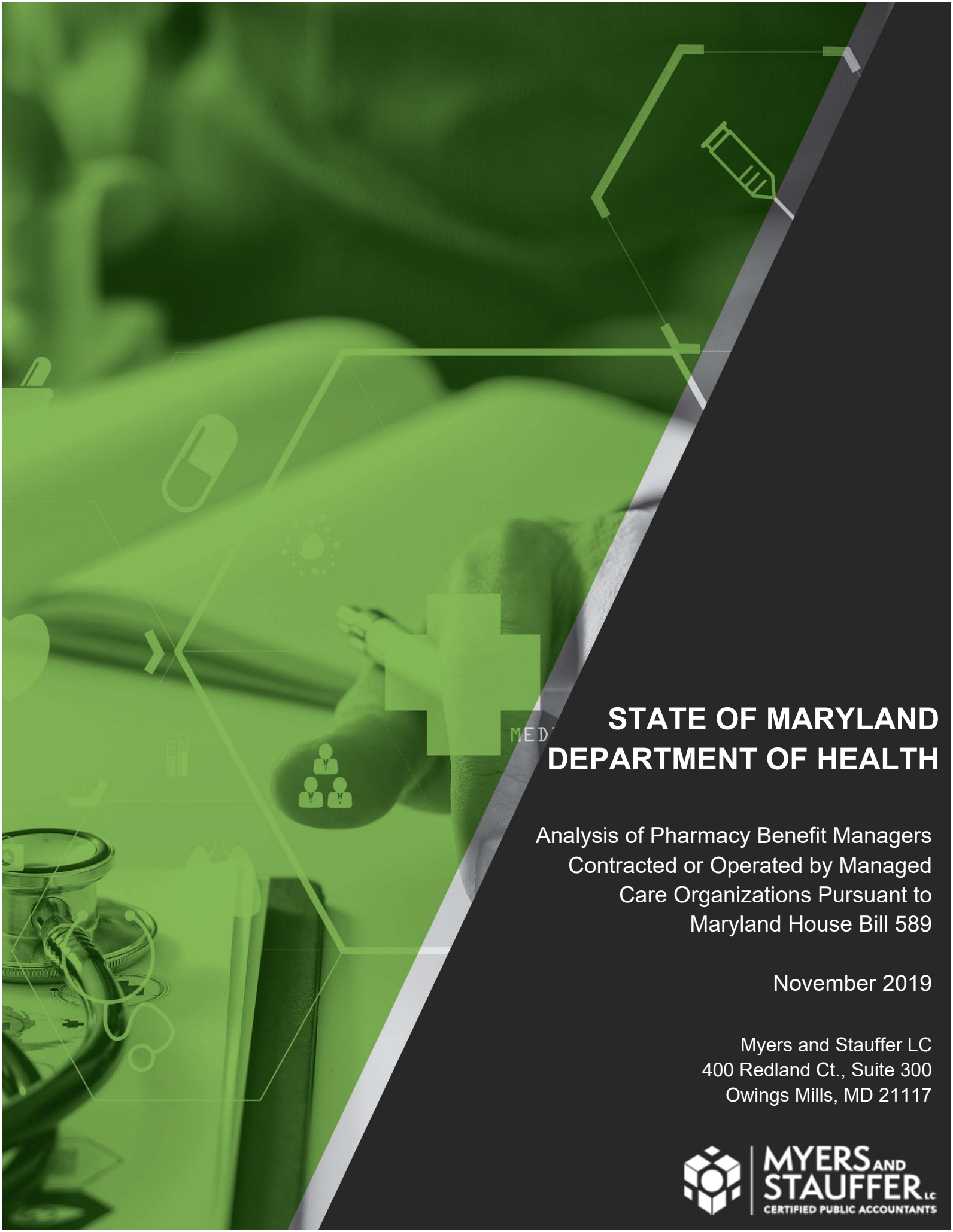
   c. Spread Pricing

      i. To renegotiate PBM agreements so that spread pricing will be eliminated by the end of the Agreement term.

      ii. To base PBM reimbursement on the actual amount paid by the PBM to a pharmacy for dispensing and ingredient costs.

   d. To manage or delegate to the PBM any drug pricing appeals from pharmacies and resolve all appeals within 21 days of receipt of the request to review.

APPENDIX A



STATE OF MARYLAND DEPARTMENT OF HEALTH

Analysis of Pharmacy Benefit Managers Contracted or Operated by Managed Care Organizations Pursuant to Maryland House Bill 589

November 2019

Myers and Stauffer LC
400 Redland Ct., Suite 300
Owings Mills, MD 21117

MYERS AND STAUFFER LC
CERTIFIED PUBLIC ACCOUNTANTS

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Exhibit List

Exhibit List	
Exhibit	**Description**
1	Spread Pricing Analysis for all MCOs Combined

Objective

Maryland House Bill 589 (HB 589) requires the Maryland Department of Health (MDH) to conduct an analysis of pharmacy benefits managers contracted or operated by managed care organizations that provide prescription benefit services to the HealthChoice program. MDH has contracted with Myers and Stauffer LC to assist with this analysis. According to HB 589, managed care organizations (MCOs), pharmacy benefit managers (PBMs), or pharmacies are required to provide access to contracts, encounter claims data, information requested via questionnaire, and additional information as needed to determine actual reimbursement to the managed care organizations, pharmacy benefit managers, and pharmacies.

Myers and Stauffer was authorized to begin work on this project in April 2019. This report describes the project steps that Myers and Stauffer performed and presents results from project activities.

Data and Documentation Collection and Review

To facilitate the review of the payment models of the MCOs and PBMs that operate under the HealthChoice program, Myers and Stauffer has requested, obtained, and reviewed documentation and data from multiple sources. These sources are described below:

- *Contracts between the MCOs and their partner PBMs. MCOs were instructed to provide all contract materials that were relevant to calendar year 2018. These contracts were reviewed with a focus on pricing guarantees, other payment terms, and administrative services provided by PBMs.*
- *Pharmacy claims data from the MDH pharmacy claims processor, Conduent. Conduent serves as the initial point of entry for all prescriptions paid under the Maryland Medicaid program. Based on member enrollment and type of product being reimbursed, Conduent routes claims to be adjudicated through the HealthChoice program to the appropriate PBM and adjudicates fee-for-service claims through its own claims processing systems. The claims information that Myers and Stauffer received from Conduent covered paid dates in calendar year 2018 and was loaded into a standardized database for analysis and review activities.*
- *Pharmacy claims with records of payment from the MCO to its corresponding PBM and records of payment from the PBMs to their network pharmacies. These pharmacy claims covered paid dates in calendar year 2018. The claims information from MCO/PBMs were loaded into individual tables within a standardized database for comparative analysis.*
- *Each PBM received and responded to a questionnaire prepared by Myers and Stauffer. The questionnaire collected contact information for each PBM and required each PBM to provide totals relating to the claims data that had been sent to Myers and Stauffer for*

calendar year 2018 (e.g., total number of claims, total payments from PBMs to pharmacies; total payments from MCOs to the PBM, etc.). The questionnaire also requested information relating to manufacturer rebates (outside of statutory Medicaid Drug Rebates or state supplemental rebates collected by MDH) and direct and indirect remuneration transactions with network pharmacies. PBMs were required to attest to the validity of their questionnaire responses. Myers and Stauffer performed a review of questionnaire responses received, summarized responses and compared the claim file totals with the claim file submissions from each MCO/PBM.

- *A sample of pharmacies was selected for each MCO/PBM. This sample was drawn based upon a review of the pharmacy claims data obtained from Conduent in order to determine the universe of all pharmacies actively participating within each MCO/PBM network. Pharmacies were sampled to include representation of both chain and independent pharmacies; specialty pharmacies; pharmacies in both urban and rural locations within Maryland; and pharmacies that were both affiliated and not affiliated under common ownership with the PBM. For sampled pharmacies, Myers and Stauffer submitted a request to MCOs and their corresponding PBMs to review the contracts between the PBMs and their respective network pharmacies. Arrangements were made with the PBMs to review the contracts either through remote viewing webinars scheduled with the PBM organizations or through secure transmission of contract materials to Myers and Stauffer.*

Contract Review

Contracts between MCOs and PBMs

Myers and Stauffer reviewed the contracts between the MCOs and PBMs with a focus on the financial terms associated with payments for prescriptions, pricing guarantees, dispensing fees and administrative fees.

Services provided by the PBMs, as described in the contracts, were relatively similar across the MCO/PBM contracts. These services included the following:

- *Pharmacy network management (establish, contract and maintain network; monitor and audit for compliance).*
- *Eligibility management (24 hour eligibility/claims processing support).*
- *On-line electronic claims processing/administration (including on-line viewing access to 12 months of claims history).*
- *Drug utilization review.*
- *Full-service pharmacist/member help desk (live – available 24/7).*
- *Formulary/therapeutic management programs.*
- *Financial services (including pharmacy reimbursement).*
- *ID cards and member welcome communications.*
- *Maintain accurate pharmacy directory, searchable by zip code to allow members to find in-network pharmacy.*
- *Prior-authorization management.*
- *Rebate management (submit, collect, and remit to plan).*

Contracts reflected that payments for drugs were based off of a discount to average wholesale price (AWP) plus a nominal dispensing fee. The average discount from AWP for brand name products was approximately 16.4 percent. The average dispensing fee guarantee for brand name products was approximately $1.

For generic products, pricing was generally based on each PBM's proprietary maximum allowable cost (MAC) rates. The average discount from AWP for generic products pricing guarantees was approximately 71 percent. The average dispensing fee guarantee for generic products was approximately $1.

Pricing for specialty products was generally detailed at the national drug code (NDC) level with individual drug products having a discount from AWP.

Administrative fees were cited in several of the contracts and those fees averaged $0.26 per claim.

In general, while the contracts specified pricing guarantees to the MCOs, the terms allowed PBMs to independently negotiate rates with pharmacies indicating that payment rates between the MCOs and the PBMs did not explicitly pass through to pharmacies.

Contracts between PBMs and Pharmacies

Drawing from all nine of the MCO/PBM pairs, Myers and Stauffer reviewed 73 contracts between PBMs and pharmacies. For these contract reviews, Myers and Stauffer was typically not allowed to maintain a copy of the contract. Rather, review of the contracts was restricted by the PBM to occur via a remote viewing webinar session.

The average discount from AWP for brand name products was approximately 18 percent. The average dispensing fee for brand name products was approximately $0.50.

For generic drug products, pricing terms in the PBM/pharmacy contracts were predominately based on each PBM's proprietary MAC prices with fallback pricing (e.g., a generic without a MAC might default to AWP minus 25%) The average discount from AWP for generic products was approximately 36 percent. However, since the discount from AWP represents fallback pricing when a MAC rate does not exist, the actual experience of generic product ingredient reimbursement relative to the AWP was not easily discernable from the contract terms. The average dispensing fee for generic products was approximately $0.50.

Pricing for specialty products was generally detailed at the NDC level or by Therapeutic Category with each individual drug product or category having a discount from AWP.

Many of the contracts also specified administrative fees to be assessed to pharmacies. The average of these administrative fees was $0.16 per claim. These administrative fees were typically recovered from pharmacies through a monthly adjustment. Accordingly, these fees essentially reduce the net amount of ingredient reimbursement received by pharmacies, but the reductions would not be identifiable within claims data.

Several of the pharmacy contracts include provisions, often complex, relating to reconciliations which could be applied to meet specific brand equivalent rates (BER), generic equivalent rates (GER) or dispensing fee effective rates. The specific terms of these adjustment processes varied among the contracts.

Some of the pharmacy contracts incorporate terms which were located in a provider manual distributed by the PBM. These provider manuals were typically considered proprietary publications with a limited distribution. In some instances, but not all, Myers and Stauffer was provided with access to the PBM's proprietary provider billing manual. These provider billing manuals tended to address general contractual terms other than reimbursement rates.

Conclusions from Contracts Review

Based on the review of the contractual terms between MCOs and PBMs and comparison to the contractual terms between PBMs and pharmacies in their networks, the pricing guarantees within the contracts between MCOs and PBMs are at higher levels than corresponding terms in the contracts between PBMs and their member pharmacies both in terms of ingredient reimbursement and dispensing fees. The margin between the amount charged to a plan sponsor and the amount paid out by a PBM to pharmacies for a prescription is typically referred to as "spread pricing".

Questionnaire Review

Several of the items on the questionnaires received from PBMs were related to claim counts and payment totals. The payment amounts and claim counts included within the questionnaire response serve as one basis for evaluating the amount of spread pricing and also served as control data points for validating the spread pricing levels calculated within the claims data. Additional steps were necessary to reconcile questionnaire responses with claims totals. A factor considered in the reconciliation process was the need to accurately account for the impact of voided and/or adjusted claims.

The questionnaire also collected information from PBMs regarding the collection of manufacturer rebates associated with claims for HealthChoice participants. PBMs were specifically instructed that any amounts reported should be exclusive of rebate amounts associated with statutory Medicaid Drug Rebates or state supplemental rebates collected by MDH. Each of the nine MCOs/PBMs reported rebate amounts which totaled approximately $28 million. The rebate amounts as a percentage of MCO payments to the PBM averaged approximately 4% (approximately $2.70 on a per claim basis). Contractual terms for handling rebates varied, but generally the majority of rebates collected by the PBMs were required to be remitted to the MCOs. For those PBMs that retained a portion of the rebate, the average amount retained was approximately $0.28 per claim.

Additional items on the questionnaire included inquiries regarding the amount of payment recoveries from pharmacies including direct and indirect remuneration and other recoupments. The responses from PBMs referenced some of their policies for reconciliations based on pharmacy agreements, assessments of transmission fees to pharmacies and other payment adjustments. Some PBMs reported recoveries associated with pharmacy audits.

Spread Pricing Analysis and Findings

Myers and Stauffer performed an analysis with the data sets provided by each MCO/PBM to determine a calculation of pricing spread on a claim by claim basis. It was noted that there were discrepancies for MCOs/PBMs regarding the claim counts and payments reporting on the questionnaire and the claim counts and payments reported in the detailed claims data. The claim counts within the questionnaire do not necessary net out claims which were subsequently voided or adjusted. However, for analysis of the detailed claims data, Myers and Stauffer applied algorithms to remove voided and adjusted claims. It was also noted that there were some discrepancies between the number of claims within the detailed claims data received from the MCOs/PBMs and the claims set obtained from Conduent. It was noted that the data from the MCOs/PBMs did not include some claims that were apparently passed through to the MCOs for direct adjudication. Results of the analysis are presented in the table below.

Table 1. Summary of Spread Pricing

Spread Pricing – MCO/PBM*					
Total Number of Paid Claims	MCO Payments to PBM	PBM Payments to Pharmacies	Payment Amount Difference ("spread")	Payment Difference Per Claim ("spread")	Spread as Percent of MCO Payment to PBMs
10,329,818	$690,356,668	$618,503,885	$71,852,783	$6.96	10.4%

* Information presented in the table above represents data submitted by the MCOs and PBMs.

Additional detail regarding the spread pricing amounts is included in Exhibit 1. Breakdowns according to various traits of either the drugs dispensed or the pharmacies at which the prescriptions were dispensed are included. These traits include:

- *Brand versus generic drug products.*
- *Specialty versus non-specialty drug products.*
- *Chain[1], independent[2], or "other" affiliation of the pharmacy.*
- *Urban versus rural location for pharmacies located within the state of Maryland or out-of-state location.*
- *Pharmacy ownership status regarding whether or not its ownership is related to the PBM.*

[1] For the purpose of this report, a chain pharmacy is considered 4 or more pharmacies under common ownership.

[2] For the purpose of this report, an independent pharmacy is 1 to 3 pharmacies under common ownership.

Pricing spread was noted for each of the nine MCOs and PBMs and totaled approximately $71.9 million for the approximately 10.3 million claims adjudicated (net of voids) in calendar year 2018. On a per claim basis, the pricing spread was $6.96 or 10.4% of the payments made by MCOs to PBMs.

There was a positive spread for 76 percent of claims of the approximately 10.3 million claims adjudicated in 2018 (i.e., the payment from the MCO to the PBM was greater than the corresponding payment from the PBM to the pharmacy). For 2 percent of claims, the payment amounts were the same (i.e., no spread) and for 21 percent of claims, there was a negative spread (i.e., the payment from the MCO to the PBM was less than the corresponding payment from the PBM to the pharmacy).

Table 2. Summary of Spread Pricing by Drug Product Type

Average Payment Per Claim				
Drug Product Type	**MCO to PBM**	**PBM to Pharmacy**	**Average Difference Per Claim ("spread")**	**Spread as Percent of MCO Payment to PBMs**
Brand/non-specialty	$232.78	$228.41	$4.37	1.9%
Brand/specialty	$6,818.29	$6,689.23	$129.07	1.9%
Generic/non-specialty	$18.45	$12.34	$6.12	33.1%
Generic/specialty	$761.99	$555.68	$206.32	27.1%
All Products	**$66.83**	**$59.88**	**$6.96**	**10.4%**

Spread pricing was more pronounced for generic products than for brand name products both on an absolute dollar basis per claim and markedly so on a percentage basis. The spread pricing for brand name products was approximately 2 percent of the amount paid by MCOs to PBMs but in excess of 30 percent of the amount paid for generic products.

Spread pricing was also compared for specialty versus non-specialty products. There is no singular definition of "specialty" in the pharmacy industry or for governmental agencies. For purposes of this report, the designation of a product as specialty was determined by a list of specialty drugs internally developed and maintained by Myers and Stauffer.

Spread pricing for specialty products was markedly higher than non-specialty products on an absolute dollar basis per claim. However, on a percentage basis, the spread pricing was

relatively similar between brand and generic specialty products and brand and generic non-specialty products.

Table 3. Summary of Spread Pricing by Pharmacy Type

Average Payment Per Claim				
Pharmacy Type	**MCO to PBM**	**PBM to Pharmacy**	**Average Difference Per Claim ("spread")**	**Spread as Percent of MCO Payment to PBMs**
Chain	$64.43	$57.32	$7.11	11.0%
Independent	$71.75	$65.24	$6.51	9.1%
Other	$85.58	$77.42	$8.16	9.5%
All Pharmacy Types	**$66.83**	**$59.88**	**$6.96**	**10.4%**

For distinctions between chain and independent pharmacies, Myers and Stauffer relied on pharmacies' self-reported status to the National Council for Prescription Drug Programs (NCPDP). Some pharmacies do not designate themselves as either chain or independent pharmacies and are reported as "other" for purposes of this report. The "other" classification is a relatively small number of pharmacies (approximately 70 pharmacies of which only about half were located in the state of Maryland) and tends to include specialty pharmacies not associated with a "chain" and pharmacies associated with hospitals or health systems.

Spread pricing was marginally higher for claims paid to chain pharmacies as opposed to claims paid to independent pharmacies. Spread pricing was somewhat higher on an absolute basis for pharmacies classified as "other," but on a percentage basis, this group was similar to independent pharmacies.

Table 4. Summary of Spread Pricing by Pharmacy Location

Average Payment Per Claim				
Pharmacy Location	**MCO to PBM**	**PBM to Pharmacy**	**Average Difference Per Claim ("spread")**	**Spread as Percent of MCO Payment to PBMs**
In-state urban	$51.05	$44.12	$6.93	13.6%
In-state rural	$40.91	$36.08	$4.83	11.8%
Out-of-state or unknown location	$365.50	$355.83	$9.67	2.6%
All Pharmacy Types	**$66.83**	**$59.88**	**$6.96**	**10.4%**

For purposes of this report, pharmacies located within the state of Maryland were classified as urban or rural based on the "Zip Code to Carrier Locality File" available from the Centers for Medicare & Medicaid Services (CMS)[3]. Pharmacies located outside of the state of Maryland, or in limited circumstances, claims with National Provider Identifier (NPI) codes that could not be linked to a specific pharmacy, were not subdivided based on urban or rural location. It should be noted that many of the specialty pharmacies which provided specialty products for Maryland Medicaid members are located outside the state of Maryland. Pharmacies located in urban areas in the state of Maryland dispense the majority of prescriptions for specialty products. These factors heavily influence the average claim payment amounts and corresponding pricing spread observations for these groups.

For pharmacies within the state of Maryland, spread pricing was more pronounced, on both an absolute dollar basis and on a percentage basis, for pharmacies located in urban areas of the state. Spread pricing for out-of-state pharmacies was higher on an absolute dollar basis, but markedly lower on a percentage basis.

[3] The zip code to carrier locality file is based on zip codes; counties typically have multiple zip codes within their boundaries and zip codes can cross county lines. For purposes of this analysis the zip codes included within the counties of Caroline, Dorchester, Garrett, Kent, and Talbot were designated as rural. Zip codes within portions of the counties of Frederick, Queen Anne's, Somerset, Washington, and Worcester were designated as rural. All other counties are designated as urban.

Table 5. Summary of Pricing by Pharmacy Related-Party Status

Average Payment Per Claim				
Pharmacy Related-Party Status	**MCO to PBM**	**PBM to Pharmacy**	**Average Difference Per Claim ("spread")**	**Spread as Percent of MCO Payment to PBMs**
Related party pharmacies	$155.37	$148.89	$6.48	4.2%
Non-related party pharmacies	$54.71	$47.69	$7.02	12.8%
All Pharmacy Types	**$66.83**	**$59.88**	**$6.96**	**10.4%**

Myers and Stauffer also looked at the difference in spread pricing based on whether or not a pharmacy was related under common ownership to the PBM. Related party pharmacies included a number of specialty pharmacies, and for that reason, the average claim amounts for related party pharmacies tended to skew higher than for non-related party pharmacies. However, the pricing spread amounts for related party pharmacies were lower on an absolute dollar basis and markedly lower on a percentage basis. It should be noted that this observation addresses the pricing spread only and does not address a comparison of the underlying reimbursement rates being applied to those pharmacies (i.e., the amounts being reimbursed for ingredient cost and dispensing fees to related party pharmacies and non-related party pharmacies).

Summary of MDH Payments to MCOs

House Bill 589 requires a review of the amount of Medicaid funds used to reimburse managed care organizations for pharmacy benefits for Medicaid members. HealthChoice MCOs are compensated using capitated rates developed on a "per member per month" (PMPM) basis by actuaries contracted by the Maryland Department of Health (MDH). These rates are calculated based on historical claims with trending factors, administrative expense factors and other adjustments applied in accordance with federal guidelines. MCOs submit a HealthChoice Financial Monitoring Report (HFMR) to MDH annually. The HFMR includes detailed revenue, utilization, and other cost information incurred by the MCOs.

HFMR data is analyzed by the Hilltop Institute, a research organization at the University of Maryland, Baltimore County (UMBC) that conducts data analytics for government agencies including MDH. Myers and Stauffer received a summary of unaudited HFMR data from the Hilltop Institute which represented MCO premium and expenditure data for calendar year 2018. The information in Table 6 is based upon the data provided by the Hilltop Institute.

Table 6. Summary of Premiums Received and Expenses Incurred by MCOs (Calendar Year 2018)

Pharmacy benefit component of premiums, net of administrative expenses, management expenses, premium tax and ACA insurer fee	$707,875,515
Net pharmacy benefit expenses	$696,848,472

The amount described as the pharmacy benefit component of premiums reflects base year pharmacy category of service cost reported by MCOs in a prior period through HFMR data and trended forward to calendar year 2018 by Optumas, the actuaries for MDH.[4] Since premiums paid to MCOs in the form of PMPM capitation rates are intended to predict future incurred claims on the basis of past experience, the actual amount of pharmacy benefit expenses incurred in a given year will not necessarily match the premium amount. The portion of capitated rates associated with the pharmacy benefit for calendar year 2018 was approximately $707.8 million. In contrast, net pharmacy benefit expenses reported by MCOs through HFMR data for calendar year 2018 was $696.8 million.

There is approximately a one percent difference in the net pharmacy benefit expenses reported through HFMR data ($696.8 million) and the MCO to PBM payments reported by the MCOs to Myers and Stauffer ($690.4 million). It was previously noted that a reconciliation was performed

[4] The pharmacy benefit component of premiums are a significant portion of the gross premiums actually paid to MCOs. Gross premiums also include an allocation of non-claim components of MCO cost (i.e., administrative and medical management costs, profit/contingency margin, premium taxes, and ACA insurer fees).

for the claims received from the MCOs and PBMs and data received from Conduent. During this reconciliation it was noted that the data from the MCOs/PBMs did not include some claims that were apparently passed through to the MCOs for direct adjudication. Myers and Stauffer noted that the total prescription payment volume by MCOs would be $709.9 million if those claims passed through to the MCOs for direct adjudication were included in the total payment amount.

Other Considerations

In addition to spread pricing which could be determined at the claim level and analyzed, pharmacies operating within the HealthChoice program are impacted by various fees and adjustments that PBMs may assess to pharmacies outside of the claims adjudication process (i.e., so-called direct and indirect (DIR) fees, BER and GER recoupments, etc.). These types of adjustments, which have the potential to increase the level of spread between payments PBMs receive from MCOs and corresponding net payments to pharmacies, have received significant negative attention and are highly unpopular with many pharmacies. However, the mechanisms by which these adjustments are implemented by PBMs can be highly complex and the means by which to assess the net impact of these adjustments would be correspondingly complicated. A comprehensive analysis of these adjustments would require extensive procedures and additional time to analyze a sufficiently large statistically valid sample of pharmacy payment adjustments. Based on the complexity of these transactions, and the lack of information suggesting that these fees were significant, an analysis of DIR was not performed in order to meet the legislated timeline for this analysis.

Conclusions

The review of PBMs contracted or operated by MCOs that provide prescription benefit services to the HealthChoice program reveals that each MCO and PBM have adopted contractual relationships that allow for spread pricing. An analysis of pharmacy claims data for calendar year 2018 reveals that spread pricing occurs within each HealthChoice plan. The total spread pricing across all plans was approximately $71.9 million. The average spread pricing per claim is approximately $6.96. Approximately 10.4% of payments made by MCOs to their corresponding PBMs, on average, is retained by the PBM as revenue associated with the services they provide to administer the pharmacy benefit.

The use of the spread pricing model serves the purpose of allowing PBMs to offset their administrative costs and increase overall remuneration while assessing MCOs nominal or low per-claim or per-service administrative fees. This contractual arrangement also facilitates the practice of a pass-through of all or most of rebates collected from drug manufacturers by PBMs to the MCOs. Under alternative models of contracting that were not based on spread pricing, it is presumed that PBMs would derive their remuneration through alternative means such as higher per claim administrative fees or varying models relating to the retention of rebates.

Perhaps the most significant drawback of the spread pricing model is its lack of transparency. The spread pricing model tends to obscure the amount of remuneration retained by PBMs and makes it difficult for state agencies administering the Medicaid benefit to determine if the amount of PBM remuneration is a reasonable expense to be borne by a Medicaid program.

Potential Options

Several other state Medicaid programs have identified spread pricing models within their managed care programs and have considered various options which include the following:

- *Mandate pass-through contracting for all MCO/PBM contracts. Under a pass-through contracting model, the MCO is charged a flat administrative fee from the PBM per claim or per member. In theory, a transparent drug pricing model between the MCOs and PBMs would simplify efforts to monitor financial expenses related to pharmacy transactions.*
- *Mandate the implementation of a predetermined pricing methodology to managed care Medicaid pharmacy benefits. For example, in some states, the pharmacy reimbursement methodology under managed care programs is identical to the pharmacy reimbursement paid under the fee-for-service program.*
- *Perform continued monitoring of MCO/PBM and pharmacy transactions on an annual basis and measure trends with regards to spread pricing practices.*

Overview of Related State Studies or Initiatives

Numerous state Medicaid agencies have taken action or are reviewing issues related to Medicaid managed care pharmacy reimbursement, spread pricing and PBM oversight. The information below is a summary of publicly available information regarding analyses undertaken by various state Medicaid programs. The findings relating to spread pricing referenced in these reports may not be directly comparable to the analysis performed for the state of Maryland since there are differences in methodology, time period under review, overall size of the Medicaid managed care programs, differences in plan design and potentially other regional variations that impact pricing.

Ohio: The Ohio State Auditor (auditor) conducted a review of payments for pharmacy services under the Ohio Medicaid managed care program and issued a report on August 16, 2018.[5] The review included research into pharmacy-related topics, contract review, and Ohio Medicaid managed care claims data analysis. The claims level analysis described within the Ohio reports closely resembles the work described in this report for MDH. The auditor calculated that the average spread for brand, generic, and specialty drugs from April 1, 2017 through March 31, 2018 was $5.71 per claim. Ohio Medicaid reimbursed 39,378,594 claims and the total amount of spread calculated for all claims analyzed was $224.8 million.

As a result of the audit, Ohio Medicaid mandated that the managed care plans implement a transparent “pass-through” pricing model beginning January 1, 2019. The pass–through model required managed care plans to report to the state the amounts reimbursed to pharmacies for both the ingredient cost and the dispensing fee.

Kentucky: Kentucky Medicaid conducted a spread pricing analysis in 2018. The state created a template of specific data elements that MCOs and their PBMs were to provide. Kentucky’s analysis determined that spread pricing within the Medicaid program totaled approximately $123 million for calendar year 2018 for approximately 24.7 million prescriptions which equates to a spread amount per claim of approximately $5.00.

The Kentucky Legislature passed Senate Bill 5 in 2018[6], which requires the Department of Medicaid Services to take a more proactive role in regulating outpatient pharmacy benefits provided through Medicaid managed care contracts.

South Carolina: South Carolina Medicaid commissioned a study of spread pricing in 2019. The report of the study describes an analysis of claims level information between July 1, 2018 and

[5] https://audits.ohioauditor.gov/Reports/AuditReports/2018/Medicaid_Pharmacy_Services_2018_Franklin.pdf

[6] https://legiscan.com/KY/bill/SB5/2018

December 31, 2018. For claims during this period, it was determined that there was approximately $15 million in spread pricing which equated to a spread pricing of $4.50 per claim.

Legislation was passed by the South Carolina Legislature in May 2019 requiring PBMs to be licensed in the state and placing additional limitations and requirements on PBMs and their interactions with pharmacies.[7] Although the spread pricing analysis has been available publically since at least August 2019, it does not appear that any further action has resulted yet regarding this issue.

Pennsylvania: The Pennsylvania State Auditor (auditor) issued a report on the role of pharmacy benefit managers in 2018.[8] The auditor requested information from PBMs for calendar year 2017. This request included the total number of Medicaid prescriptions, the total amount the state reimbursed the PBM, and the total amount the PBM reimbursed pharmacies. The auditor found that three of the four PBMs with Medicaid reimbursed prescriptions in 2017 used spread pricing with a per claim spread pricing amount between $0.28 and $13 per prescription. The auditor's publically available report did not provide a detailed breakdown of the results. It does not appear that claims level detail was relied upon to verify the amounts reported by the PBMs.

The auditor's report recommended several potential options including having the state directly manage the prescription drug benefit (i.e., a pharmacy carve-out)[9], increased transparency in PBM pricing practices, allowing the state to have oversight of contracts between PBMs and pharmacies, and requiring a flat-fee pricing model for compensating PBMs.

Massachusetts: The State released a report in June 2019 examining spread pricing for generic drugs within the Medicaid program.[10] This analysis looked strictly at spread-pricing in prescriptions for generic products. The study did not obtain data from MCOs or PBMs showing respective payments made, but rather reviewed encounter data and repriced prescriptions at the amounts that would have been reimbursed under the fee-for-service program. The analysis determined that for 42 percent of the drugs analyzed, the MCO drug reimbursement was higher than fee-for-service reimbursement. However, the report did not include a determination whether these differences implied overall higher payments to pharmacies or increased profits for PBMs since transaction data between PBMs and pharmacies was not available

Bills have been introduced within the Massachusetts Legislature which would increase oversight of PBMs, require PBMs to be transparent in their pricing and limit PBM margins.

[7] https://www.scstatehouse.gov/sess123_2019-2020/bills/359.htm

[8] https://www.paauditor.gov/Media/Default/Reports/RPT_PBMs_FINAL.pdf

[9] States have the option to "carve-in" prescription benefits allowing managed care plans to provide and administer the prescription benefits or "carve-out" prescription benefits from managed care plans and administer the prescription benefits through a state run plan.

[10] https://www.mass.gov/info-details/hpc-datapoints-issue-12-cracking-open-the-black-box-of-pharmacy-benefit-managers

In addition to spread pricing analyses performed and published by state agencies, various state pharmacy associations have also commissioned studies on the spread pricing issues. Such studies have been performed in New York, Michigan, and Illinois. The analysis performed in these states was based on publically available data sets obtained from CMS or using data provided directly from member pharmacies. These studies were performed with only aggregated access to transactions between MCOs and PBMs and very limited access to transactions between PBMs and pharmacies. This may limit the usefulness of their results.

Exhibit 1
Spread Pricing Analysis for Calendar Year 2018 Pharmacy Claims
MCO / PBM: All MCOs Combined
(Pharmacy Affiliation, Drug Type, Specialty Products, Location, Related Party)

Pharmacy Group	Brand / Generic Drugs	Specialty Drugs	Claim Count	Total Payments MCO to PBM	Total Payments PBM to Pharmacy	Average Ingredient Paid by Plan as Percent of AWP	Average Ingredient Paid by PBM as Percent of AWP	Average Ingredient Paid by Plan as Percent of WAC	Average Ingredient Paid by PBM as Percent of WAC	Average Dispensing Fee Paid by Plan	Average Dispensing Fee Paid by PBM	Average Payment to PBM per Claim	Average Payment to Pharmacy per Claim	Average Difference per Claim ("spread")	"Spread" as Percent of MCO Payment to PBMs	Percent of Claims with Positive "Spread"
Pharmacy Type: Chain	Brand	No	739,082	$166,950,567	$163,572,645	81.4%	79.9%	97.9%	96.1%	$0.79	$0.40	$225.89	$221.32	$4.57	2.0%	71.5%
	Brand	Yes	25,823	$167,412,823	$165,815,248	83.1%	82.3%	99.8%	98.8%	$0.56	$0.50	$6,483.09	$6,421.22	$61.87	1.0%	20.4%
	Total for brands		764,905	$334,363,390	$329,387,893					$0.79	$0.40	$437.13	$430.63	$6.50	1.5%	69.8%
	Generic	No	6,460,391	$115,605,618	$73,094,518	22.8%	14.7%	75.6%	48.5%	$0.88	$0.42	$17.89	$11.31	$6.58	36.8%	77.0%
	Generic	Yes	18,946	$16,798,651	$12,781,773	58.4%	44.4%	114.4%	87.1%	$0.79	$0.47	$886.66	$674.64	$212.02	23.9%	69.5%
	Total for generics		6,479,337	$132,404,269	$85,876,291					$0.88	$0.43	$20.43	$13.25	$7.18	35.1%	77.0%
	Total for non-specialty		7,199,473	$282,556,185	$236,667,163					$0.87	$0.42	$39.25	$32.87	$6.37	16.2%	76.5%
	Total for specialty		44,769	$184,211,474	$178,597,020					$0.65	$0.49	$4,114.71	$3,989.30	$125.41	3.0%	41.2%
Total for Chain Pharmacies			**7,244,242**	**$466,767,659**	**$415,264,184**					**$0.87**	**$0.42**	**$64.43**	**$57.32**	**$7.11**	**11.0%**	**76.3%**
Pharmacy Type: Independent	Brand	No	316,069	$78,837,510	$77,610,779	81.9%	80.7%	98.4%	97.0%	$0.82	$0.43	$249.43	$245.55	$3.88	1.6%	64.7%
	Brand	Yes	10,050	$73,945,476	$71,054,782	84.1%	80.8%	101.0%	97.0%	$0.66	$0.17	$7,357.76	$7,070.13	$287.63	3.9%	84.1%
	Total for brands		326,119	$152,782,986	$148,665,561					$0.81	$0.42	$468.49	$455.86	$12.63	2.7%	65.3%
	Generic	No	2,591,021	$51,959,211	$38,908,999	23.1%	17.6%	73.1%	55.5%	$0.92	$0.49	$20.05	$15.02	$5.04	25.1%	77.2%
	Generic	Yes	10,055	$5,292,791	$3,403,167	47.6%	30.6%	93.5%	60.1%	$1.52	$1.08	$526.38	$338.46	$187.93	35.7%	68.6%
	Total for generics		2,601,076	$57,252,003	$42,312,166					$0.93	$0.49	$22.01	$16.27	$5.74	26.1%	77.2%
	Total for non-specialty		2,907,090	$130,796,721	$116,519,778					$0.91	$0.48	$44.99	$40.08	$4.91	10.9%	75.8%
	Total for specialty		20,105	$79,238,268	$74,457,948					$1.09	$0.62	$3,941.22	$3,703.45	$237.77	6.0%	76.4%
Total for Independent Pharmacies			**2,927,195**	**$210,034,989**	**$190,977,726**					**$0.91**	**$0.49**	**$71.75**	**$65.24**	**$6.51**	**9.1%**	**75.8%**
Pharmacy Type: Other (Not chain/independent)	Brand	No	8,853	$1,887,816	$1,846,426	82.1%	80.5%	98.5%	96.6%	$0.83	$0.40	$213.24	$208.57	$4.68	2.2%	69.5%
	Brand	Yes	791	$8,627,593	$8,383,742	84.2%	81.8%	101.1%	98.2%	$0.86	$0.61	$10,907.20	$10,598.91	$308.28	2.8%	71.6%
	Total for brands		9,644	$10,515,409	$10,230,168					$0.83	$0.42	$1,090.36	$1,060.78	$29.58	2.7%	69.7%
	Generic	No	147,598	$2,163,534	$1,468,570	23.6%	16.6%	78.8%	55.0%	$0.90	$0.40	$14.66	$9.95	$4.71	32.1%	76.0%
	Generic	Yes	1,139	$875,077	$563,237	52.8%	34.0%	114.1%	73.5%	$1.10	$0.51	$768.28	$494.50	$273.78	35.6%	77.9%
	Total for generics		148,737	$3,038,611	$2,031,808					$0.90	$0.40	$20.43	$13.66	$6.77	33.1%	76.0%
	Total for non-specialty		156,451	$4,051,351	$3,314,996					$0.90	$0.40	$25.90	$21.19	$4.71	18.2%	75.6%
	Total for specialty		1,930	$9,502,669	$8,946,979					$1.00	$0.55	$4,923.66	$4,635.74	$287.92	5.8%	75.3%
Total for Other Pharmacies			**158,381**	**$13,554,020**	**$12,261,975**					**$0.90**	**$0.41**	**$85.58**	**$77.42**	**$8.16**	**9.5%**	**75.6%**
All pharmacy types (chain, ind., etc.)	Brand	No	1,064,004	$247,675,893	$243,029,851	81.6%	80.2%	98.0%	96.3%	$0.80	$0.40	$232.78	$228.41	$4.37	1.9%	69.5%
	Brand	Yes	36,664	$249,985,892	$245,253,771	83.4%	81.9%	100.1%	98.3%	$0.59	$0.42	$6,818.29	$6,689.23	$129.07	1.9%	39.0%
	Total for brands		1,100,668	$497,661,786	$488,283,621					$0.79	$0.40	$452.15	$443.62	$8.52	1.9%	68.5%
	Generic	No	9,199,010	$169,728,364	$113,472,087	22.9%	15.6%	74.9%	50.6%	$0.89	$0.44	$18.45	$12.34	$6.12	33.1%	77.1%
	Generic	Yes	30,140	$22,966,519	$16,748,177	54.5%	39.4%	107.4%	77.6%	$1.04	$0.67	$761.99	$555.68	$206.32	27.1%	69.5%
	Total for generics		9,229,150	$192,694,882	$130,220,264					$0.89	$0.44	$20.88	$14.11	$6.77	32.4%	77.0%
	Total for non-specialty		10,263,014	$417,404,257	$356,501,938					$0.88	$0.44	$40.67	$34.74	$5.93	14.6%	76.3%
	Total for specialty		66,804	$272,952,411	$262,001,947					$0.80	$0.53	$4,085.87	$3,921.95	$163.92	4.0%	52.8%
Total for All Pharmacy Types			**10,329,818**	**$690,356,668**	**$618,503,885**					**$0.88**	**$0.44**	**$66.83**	**$59.88**	**$6.96**	**10.4%**	**76.1%**

1) "Spread" as Percent of MCO Payment to PBMs does not include per claim transmission fees charged to the MCOs or the pharmacies outside of the pharmacy claims systems.
2) "Spread" as Percent of MCO payments to PBMs does not include any rebates remitted back to the MCOs or retained by the PBMs.

Exhibit 1
Spread Pricing Analysis for Calendar Year 2018 Pharmacy Claims
MCO / PBM: All MCOs Combined
(Pharmacy Affiliation, Drug Type, Specialty Products, Location, Related Party)

Pharmacy Group	Brand / Generic Drugs	Specialty Drugs	Claim Count	Total Payments MCO to PBM	Total Payments PBM to Pharmacy	Average Ingredient Paid by Plan as Percent of AWP	Average Ingredient Paid by PBM as Percent of AWP	Average Ingredient Paid by Plan as Percent of WAC	Average Ingredient Paid by PBM as Percent of WAC	Average Dispensing Fee Paid by Plan	Average Dispensing Fee Paid by PBM	Average Payment to PBM per Claim	Average Payment to Pharmacy per Claim	Average Difference per Claim ("spread")	"Spread" as Percent of MCO Payment to PBMs	Percent of Claims with Positive "Spread"
Location: In-State Urban	Brand	No	952,592	$221,837,538	$217,465,173	81.7%	80.2%	98.1%	96.3%	$0.81	$0.40	$232.88	$228.29	$4.59	2.0%	71.4%
	Brand	Yes	11,889	$85,328,655	$81,960,755	84.2%	80.9%	101.1%	97.1%	$0.70	$0.25	$7,177.11	$6,893.83	$283.28	3.9%	85.0%
	Total for brands		964,481	$307,166,193	$299,425,928					$0.81	$0.40	$318.48	$310.45	$8.03	2.5%	71.6%
	Generic	No	8,228,585	$151,880,869	$100,844,681	23.2%	15.7%	75.6%	51.0%	$0.91	$0.44	$18.46	$12.26	$6.20	33.6%	77.4%
	Generic	Yes	24,127	$11,451,792	$6,346,111	47.3%	26.3%	94.9%	52.7%	$1.12	$0.70	$474.65	$263.03	$211.62	44.6%	76.0%
	Total for generics		8,252,712	$163,332,661	$107,190,792					$0.91	$0.44	$19.79	$12.99	$6.80	34.4%	77.4%
	Total for non-specialty		9,181,177	$373,718,408	$318,309,854					$0.90	$0.44	$40.70	$34.67	$6.04	14.8%	76.8%
	Total for specialty		36,016	$96,780,447	$88,306,866					$0.98	$0.55	$2,687.15	$2,451.88	$235.27	8.8%	79.0%
Total for Urban Pharmacies			**9,217,193**	**$470,498,855**	**$406,616,720**					**$0.90**	**$0.44**	**$51.05**	**$44.12**	**$6.93**	**13.6%**	**76.8%**
Location: In-State Rural	Brand	No	58,508	$14,201,786	$14,116,745	80.6%	80.2%	96.9%	96.4%	$0.69	$0.41	$242.73	$241.28	$1.45	0.6%	40.9%
	Brand	Yes	226	$665,778	$624,862	83.9%	78.9%	100.6%	94.7%	$0.62	$0.35	$2,945.92	$2,764.88	$181.04	6.1%	97.8%
	Total for brands		58,734	$14,867,564	$14,741,607					$0.69	$0.41	$253.13	$250.99	$2.14	0.8%	41.1%
	Generic	No	515,912	$8,346,086	$5,860,069	19.1%	13.5%	66.7%	47.0%	$0.69	$0.43	$16.18	$11.36	$4.82	29.8%	73.0%
	Generic	Yes	864	$330,507	$163,335	46.0%	22.8%	95.0%	47.0%	$0.54	$0.43	$382.53	$189.05	$193.49	50.6%	75.5%
	Total for generics		516,776	$8,676,593	$6,023,404					$0.69	$0.43	$16.79	$11.66	$5.13	30.6%	73.1%
	Total for non-specialty		574,420	$22,547,872	$19,976,814					$0.69	$0.43	$39.25	$34.78	$4.48	11.4%	69.8%
	Total for specialty		1,090	$996,285	$788,197					$0.56	$0.41	$914.02	$723.12	$190.91	20.9%	80.1%
Total for Rural Pharmacies			**575,510**	**$23,544,156**	**$20,765,012**					**$0.69**	**$0.43**	**$40.91**	**$36.08**	**$4.83**	**11.8%**	**69.8%**
Location: Out-of-State/Unknown Location	Brand	No	52,904	$11,636,569	$11,447,932	81.5%	80.3%	97.9%	96.5%	$0.76	$0.44	$219.96	$216.39	$3.57	1.6%	65.9%
	Brand	Yes	24,549	$163,991,459	$162,668,153	83.1%	82.4%	99.7%	98.9%	$0.54	$0.49	$6,680.17	$6,626.26	$53.90	0.8%	16.2%
	Total for brands		77,453	$175,628,028	$174,116,086					$0.69	$0.46	$2,267.54	$2,248.02	$19.52	0.9%	50.1%
	Generic	No	454,513	$9,501,409	$6,767,337	22.5%	16.2%	70.9%	50.6%	$0.84	$0.49	$20.90	$14.89	$6.02	28.8%	75.3%
	Generic	Yes	5,149	$11,184,220	$10,238,731	67.2%	61.5%	128.6%	117.7%	$0.76	$0.60	$2,172.11	$1,988.49	$183.63	8.5%	38.3%
	Total for generics		459,662	$20,685,629	$17,006,068					$0.84	$0.49	$45.00	$37.00	$8.00	17.8%	74.8%
	Total for non-specialty		507,417	$21,137,978	$18,215,269					$0.83	$0.49	$41.66	$35.90	$5.76	13.8%	74.3%
	Total for specialty		29,698	$175,175,679	$172,906,884					$0.58	$0.51	$5,898.57	$5,822.17	$76.40	1.3%	20.0%
Total for Out-of-State/Unknown Pharmacies			**537,115**	**$196,313,657**	**$191,122,153**					**$0.82**	**$0.49**	**$365.50**	**$355.83**	**$9.67**	**2.6%**	**71.3%**
All Pharmacy Locations	Brand	No	1,064,004	$247,675,893	$243,029,851	81.6%	80.2%	98.0%	96.4%	$0.80	$0.40	$232.78	$228.41	$4.37	1.9%	69.5%
	Brand	Yes	36,664	$249,985,892	$245,253,771	83.5%	81.9%	100.1%	98.3%	$0.59	$0.42	$6,818.29	$6,689.23	$129.07	1.9%	39.0%
	Total for brands		1,100,668	$497,661,786	$488,283,621					$0.79	$0.40	$452.15	$443.62	$8.52	1.9%	68.5%
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	Total for generics		9,229,150	$192,694,882	$130,220,264					$0.89	$0.44	$20.88	$14.11	$6.77	32.4%	77.0%
	Total for non-specialty		10,263,014	$417,404,257	$356,501,938					$0.88	$0.44	$40.67	$34.74	$5.93	14.6%	76.3%
	Total for specialty		66,804	$272,952,411	$262,001,947					$0.80	$0.53	$4,085.87	$3,921.95	$163.92	4.0%	52.8%
Total for All Pharmacy Locations			**10,329,818**	**$690,356,668**	**$618,503,885**					**$0.88**	**$0.44**	**$66.83**	**$59.88**	**$6.96**	**10.4%**	**76.1%**

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(Pharmacy Affiliation, Drug Type, Specialty Products, Location, Related Party)

Pharmacy Group	Brand / Generic Drugs	Specialty Drugs	Claim Count	Total Payments MCO to PBM	Total Payments PBM to Pharmacy	Average Ingredient Paid by Plan as Percent of AWP	Average Ingredient Paid by PBM as Percent of AWP	Average Ingredient Paid by Plan as Percent of WAC	Average Ingredient Paid by PBM as Percent of WAC	Average Dispensing Fee Paid by Plan	Average Dispensing Fee Paid by PBM	Average Payment to PBM per Claim	Average Payment to Pharmacy per Claim	Average Difference per Claim ("spread")	"Spread" as Percent of MCO Payment to PBMs	Percent of Claims with Positive "Spread"
Related Party Pharmacies	Brand	No	118,712	$28,306,428	$28,314,325	81.2%	81.3%	97.5%	97.7%	$0.62	$0.34	$238.45	$238.51	-$0.07	0.0%	50.2%
	Brand	Yes	20,847	$135,754,124	$135,705,525	82.5%	82.5%	99.1%	99.0%	$0.53	$0.52	$6,511.93	$6,509.59	$2.33	0.0%	4.9%
	Total for brands		139,559	$164,060,552	$164,019,850					$0.60	$0.36	$1,175.56	$1,175.27	$0.29	0.0%	43.5%
	Generic	No	1,098,321	$18,618,396	$11,121,847	21.6%	12.9%	68.7%	40.9%	$0.64	$0.35	$16.95	$10.13	$6.83	40.3%	80.7%
	Generic	Yes	5,910	$10,563,043	$10,040,301	64.7%	61.5%	122.4%	116.3%	$0.52	$0.47	$1,787.32	$1,698.87	$88.45	4.9%	38.6%
	Total for generics		1,104,231	$29,181,439	$21,162,148					$0.64	$0.35	$26.43	$19.16	$7.26	27.5%	80.5%
	Total for non-specialty		1,217,033	$46,924,824	$39,436,172					$0.64	$0.35	$38.56	$32.40	$6.15	16.0%	77.8%
	Total for specialty		26,757	$146,317,166	$145,745,826					$0.53	$0.51	$5,468.37	$5,447.02	$21.35	0.4%	12.4%
Total for Related-Party Pharmacies			**1,243,790**	**$193,241,990**	**$185,181,998**					**$0.64**	**$0.35**	**$155.37**	**$148.89**	**$6.48**	**4.2%**	**76.4%**
Non-related Party Pharmacies	Brand	No	945,292	$219,369,465	$214,715,526	81.6%	80.1%	98.1%	96.2%	$0.82	$0.41	$232.07	$227.14	$4.92	2.1%	71.9%
	Brand	Yes	15,817	$114,231,769	$109,548,246	84.6%	81.1%	101.5%	97.4%	$0.67	$0.28	$7,222.09	$6,925.98	$296.11	4.1%	83.8%
	Total for brands		961,109	$333,601,234	$324,263,772					$0.82	$0.41	$347.10	$337.39	$9.72	2.8%	72.1%
	Generic	No	8,100,689	$151,109,968	$102,350,240	23.1%	16.0%	75.7%	52.1%	$0.93	$0.46	$18.65	$12.63	$6.02	32.3%	76.6%
	Generic	Yes	24,230	$12,403,476	$6,707,875	49.2%	26.6%	99.4%	53.9%	$1.17	$0.72	$511.91	$276.84	$235.06	45.9%	77.1%
	Total for generics		8,124,919	$163,513,444	$109,058,116					$0.93	$0.46	$20.12	$13.42	$6.70	33.3%	76.6%
	Total for non-specialty		9,045,981	$370,479,433	$317,065,766					$0.92	$0.45	$40.96	$35.05	$5.90	14.4%	76.1%
	Total for specialty		40,047	$126,635,244	$116,256,121					$0.98	$0.55	$3,162.17	$2,902.99	$259.17	8.2%	79.7%
Total for Non-related-Party Pharmacies			**9,086,028**	**$497,114,678**	**$433,321,887**					**$0.92**	**$0.45**	**$54.71**	**$47.69**	**$7.02**	**12.8%**	**76.1%**
All Pharmacies	Brand	No	1,064,004	$247,675,893	$243,029,851	81.6%	80.2%	98.0%	96.3%	$0.80	$0.40	$232.78	$228.41	$4.37	1.9%	69.5%
	Brand	Yes	36,664	$249,985,892	$245,253,771	83.4%	81.9%	100.1%	98.3%	$0.59	$0.42	$6,818.29	$6,689.23	$129.07	1.9%	39.0%
	Total for brands		1,100,668	$497,661,786	$488,283,621					$0.79	$0.40	$452.15	$443.62	$8.52	1.9%	68.5%
	Generic	No	9,199,010	$169,728,364	$113,472,087	22.9%	15.6%	74.8%	50.8%	$0.89	$0.44	$18.45	$12.34	$6.12	33.1%	77.1%
	Generic	Yes	30,140	$22,966,519	$16,748,177	52.2%	33.5%	103.9%	66.1%	$1.04	$0.67	$761.99	$555.68	$206.32	27.1%	69.5%
	Total for generics		9,229,150	$192,694,882	$130,220,264					$0.89	$0.44	$20.88	$14.11	$6.77	32.4%	77.0%
	Total for non-specialty		10,263,014	$417,404,257	$356,501,938					$0.88	$0.44	$40.67	$34.74	$5.93	14.6%	76.3%
	Total for specialty		66,804	$272,952,411	$262,001,947					$0.80	$0.53	$4,085.87	$3,921.95	$163.92	4.0%	52.8%
Total for All Pharmacies			**10,329,818**	**$690,356,668**	**$618,503,885**					**$0.88**	**$0.44**	**$66.83**	**$59.88**	**$6.96**	**10.4%**	**76.1%**

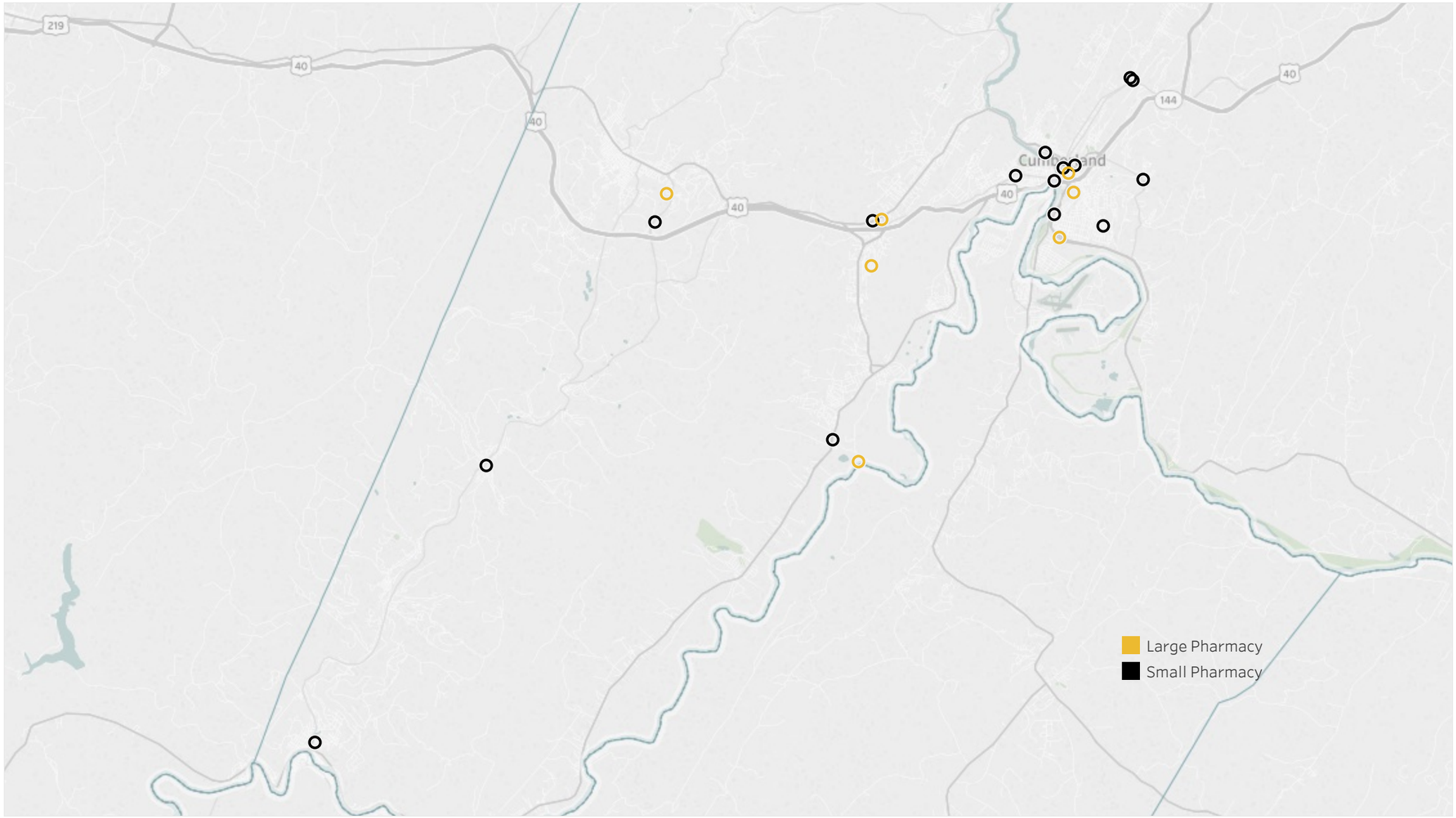
1) "Spread" as Percent of MCO Payment to PBMs does not include per claim transmission fees charged to the MCOs or the pharmacies outside of the pharmacy claims systems.
2) "Spread" as Percent of MCO payments to PBMs does not include any rebates remitted back to the MCOs or retained by the PBMs.

APPENDIX B

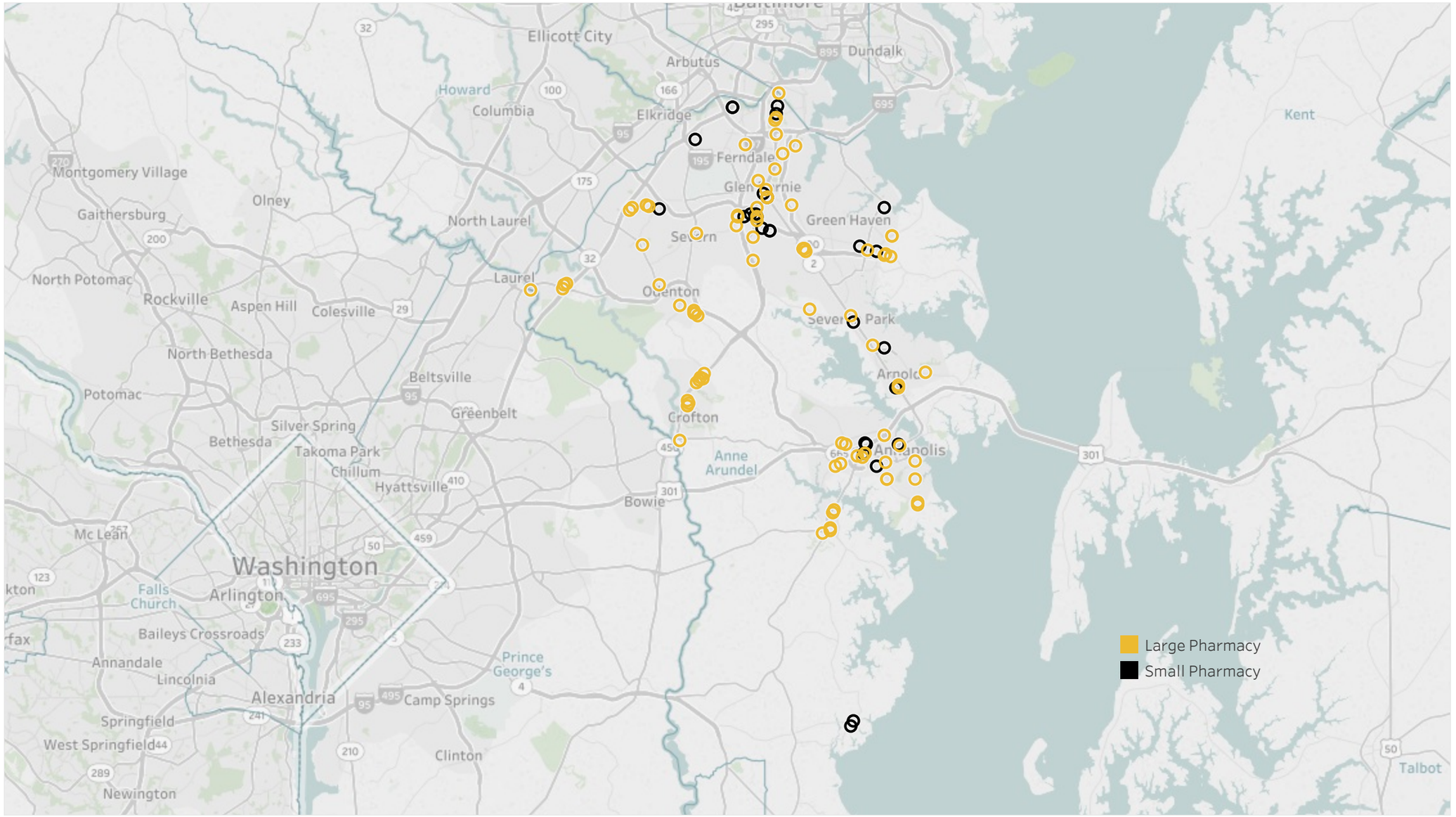
	Small Pharmacy Openings			Small Pharmacy Closures			
County	CY 2016	CY2017	CY 2018	CY 2016	CY 2017	CY 2018	Net Change (+/-)
Garrett	0	0	0	0	0	0	0
Allegany	0	0	1	0	0	-1	0
Washington	1	0	0	0	-1	0	0
Frederick	2	3	0	0	0	0	5
Carroll	0	0	0	0	0	0	0
Baltimore	5	3	6	-2	-1	-4	7
Harford	2	0	0	0	0	-1	1
Cecil	0	1	1	0	-1	0	1
Montgomery	3	6	6	0	-2	-3	10
Howard	3	3	4	0	-2	-1	7
Baltimore City	9	2	4	0	0	-2	13
Kent	0	1	0	0	0	0	1
Anne Arundel	3	1	0	-1	-1	0	2
Queen Anne's	0	0	0	0	0	0	0
Prince George's	5	4	3	-3	-1	-3	5
Talbot	0	0	0	0	0	0	0
Caroline	0	0	0	0	0	0	0
Charles	0	0	1	0	0	0	1
Calvert	0	0	0	0	0	0	0
Dorchester	2	1	0	0	0	0	3
St. Mary's	0	0	1	0	0	0	1
Wicomico	0	2	0	-1	0	0	1
Somerset	0	0	0	0	0	0	0
Worcester	0	0	0	0	0	0	0
Total:	35	27	27	-7	-9	-15	58

APPENDIX C

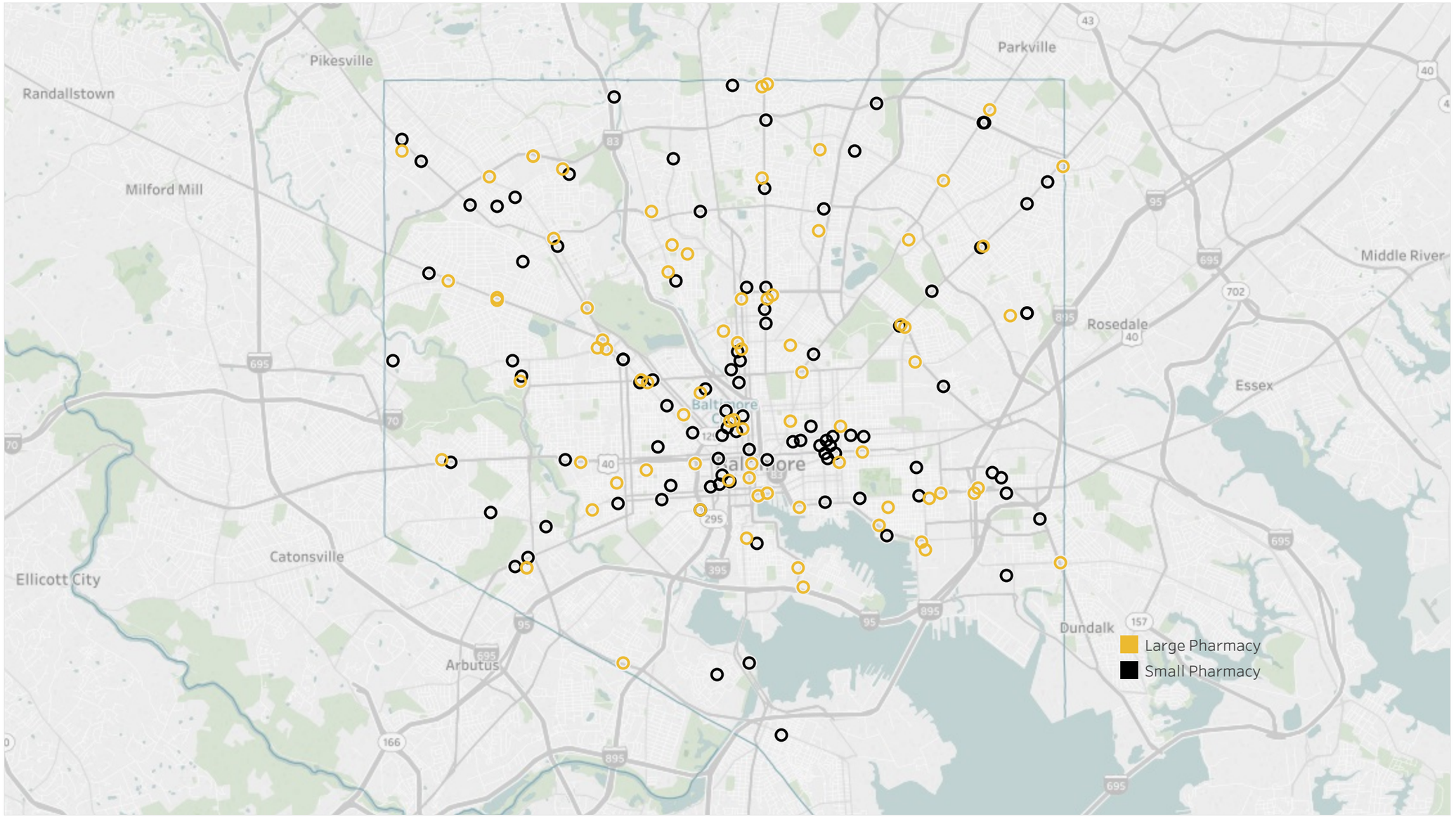
Allegany - 2018



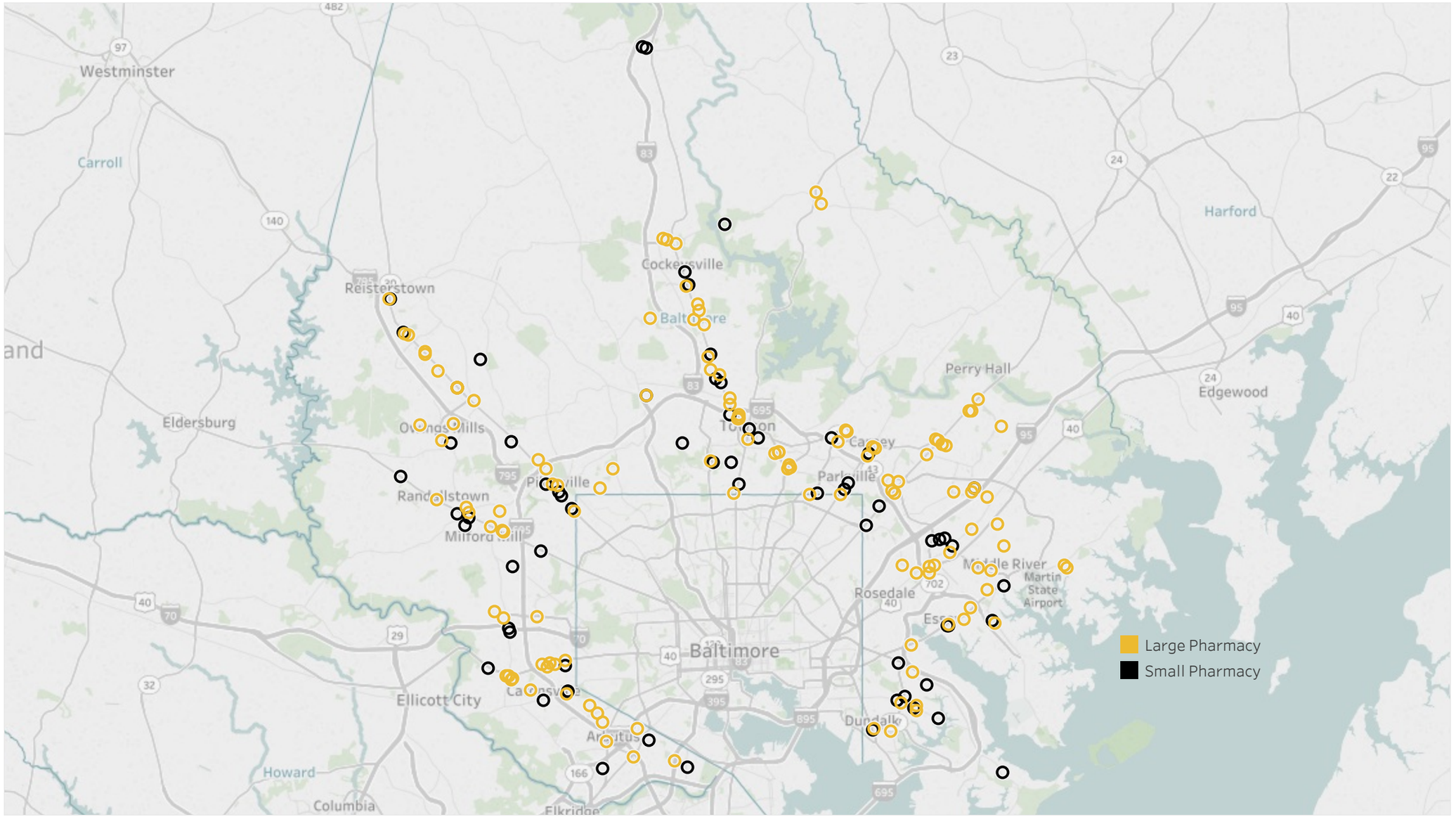
Anne Arundel - 2018



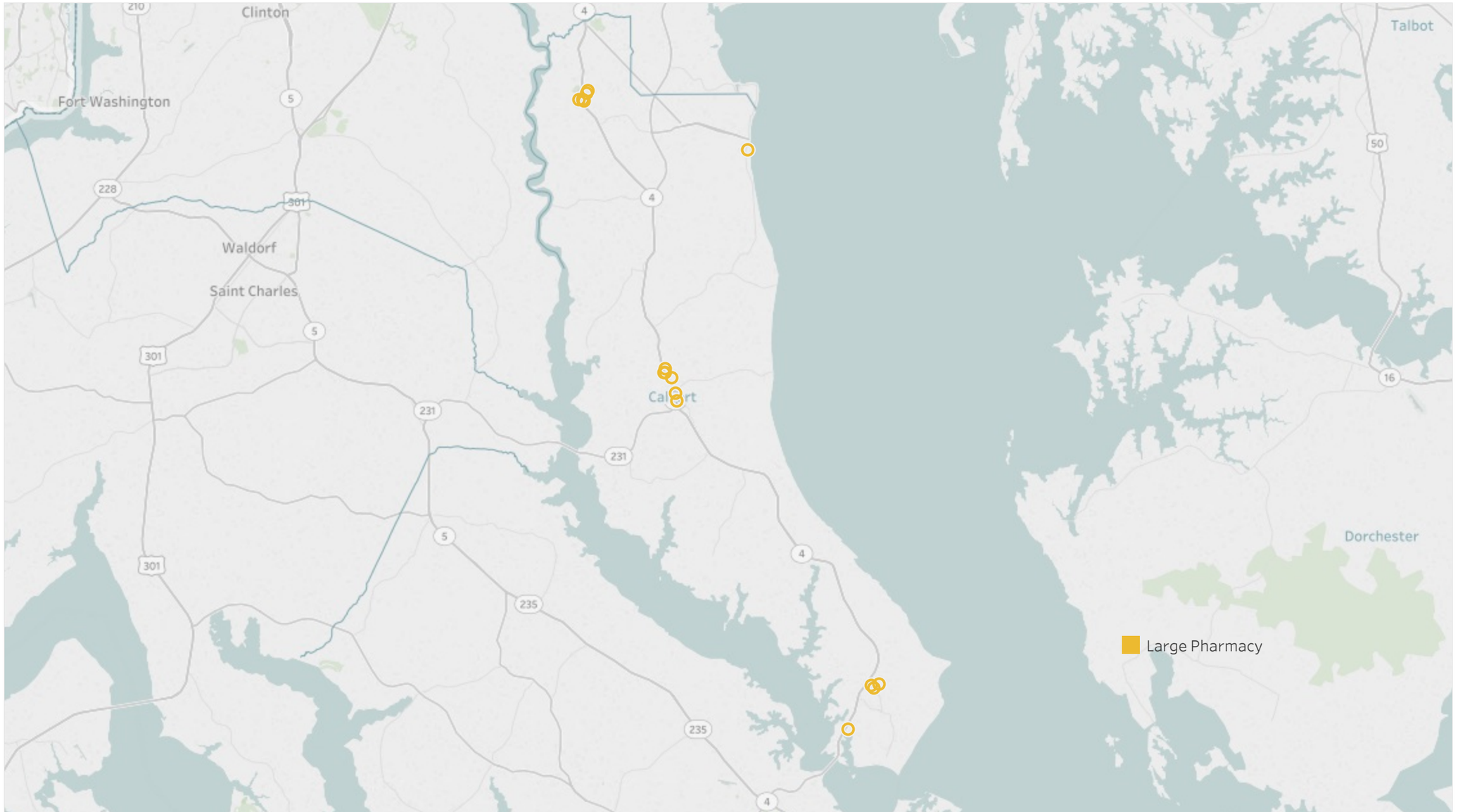
Baltimore City - 2018



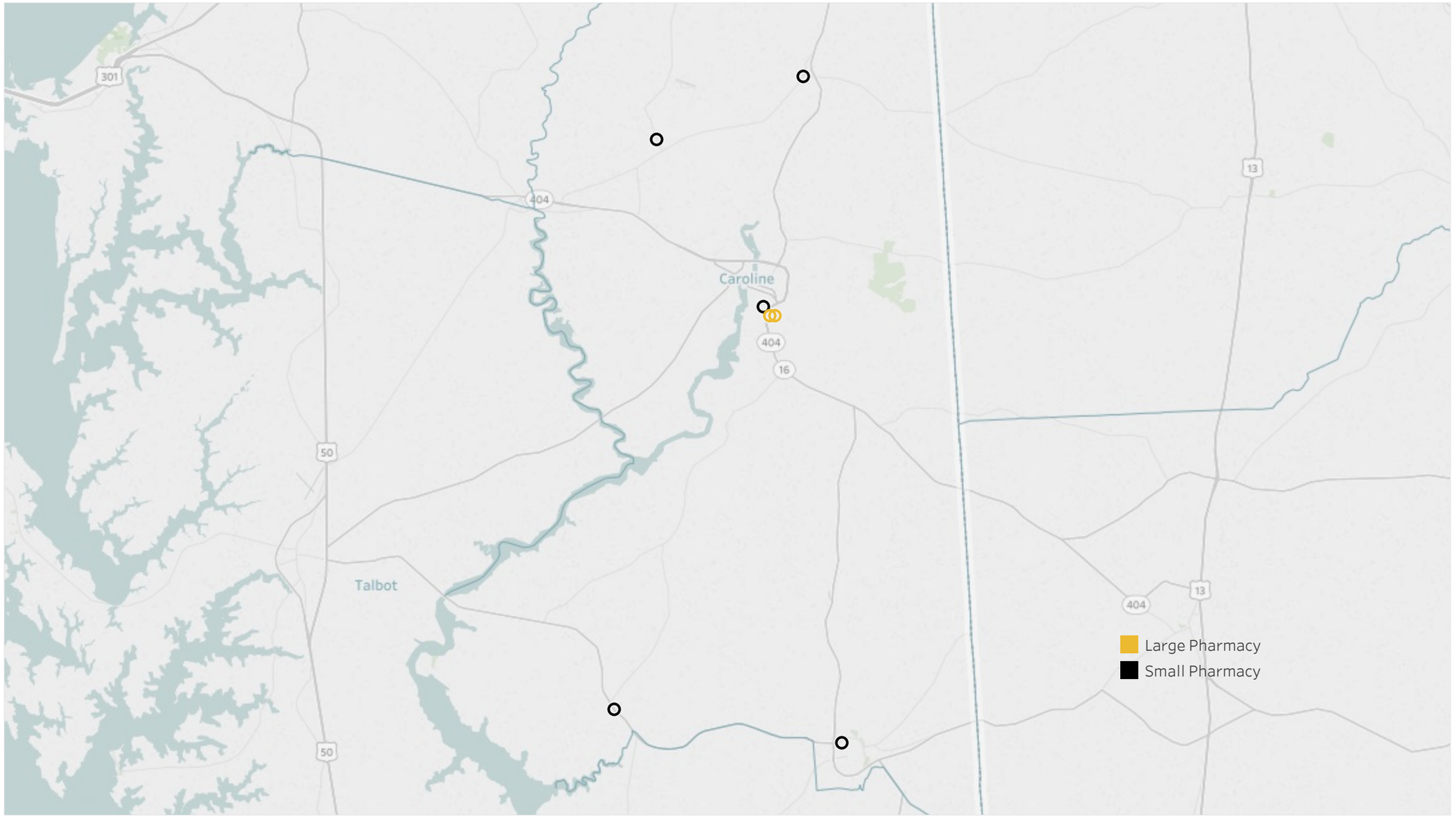
Baltimore County - 2018



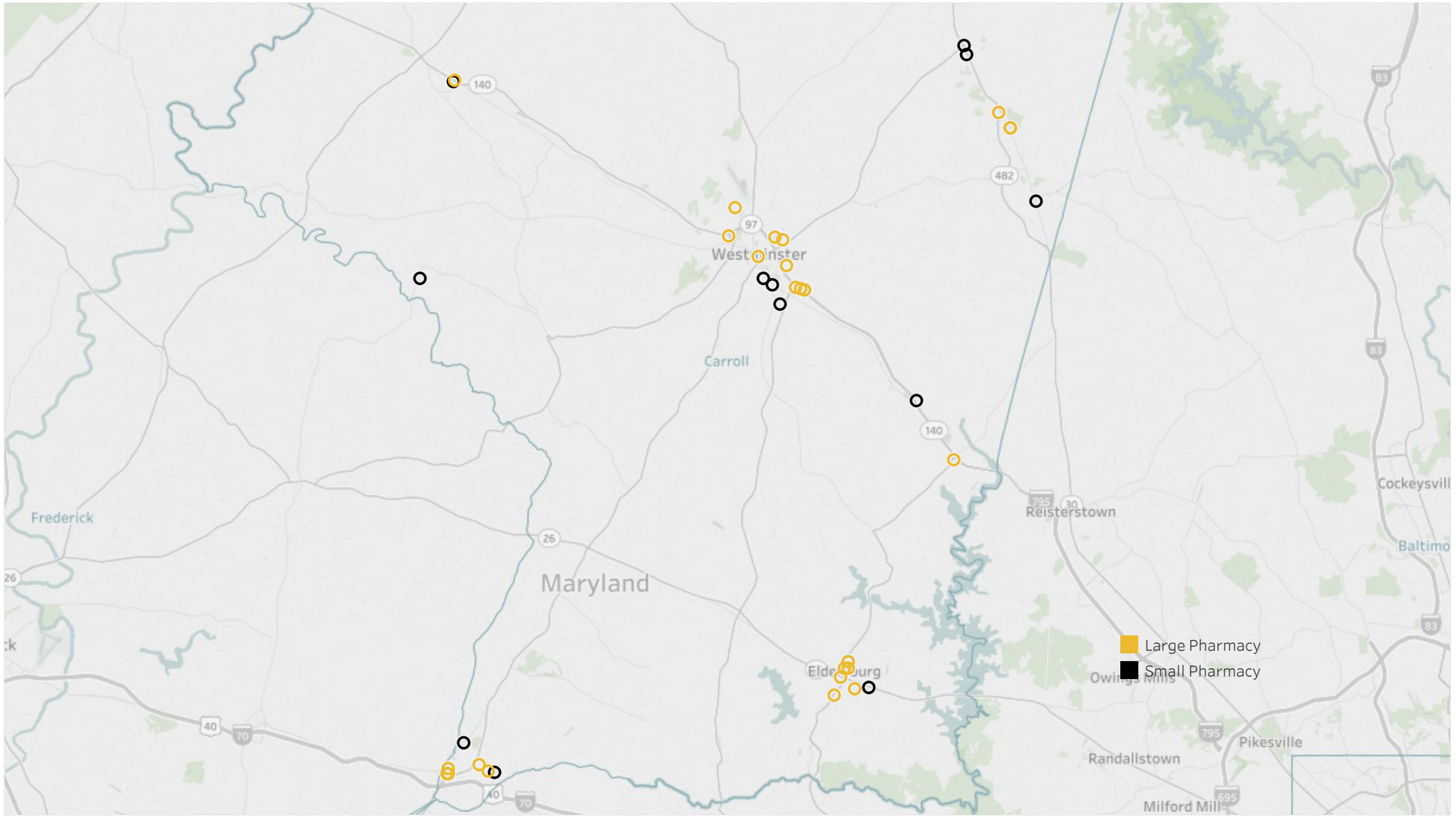
Calvert - 2018



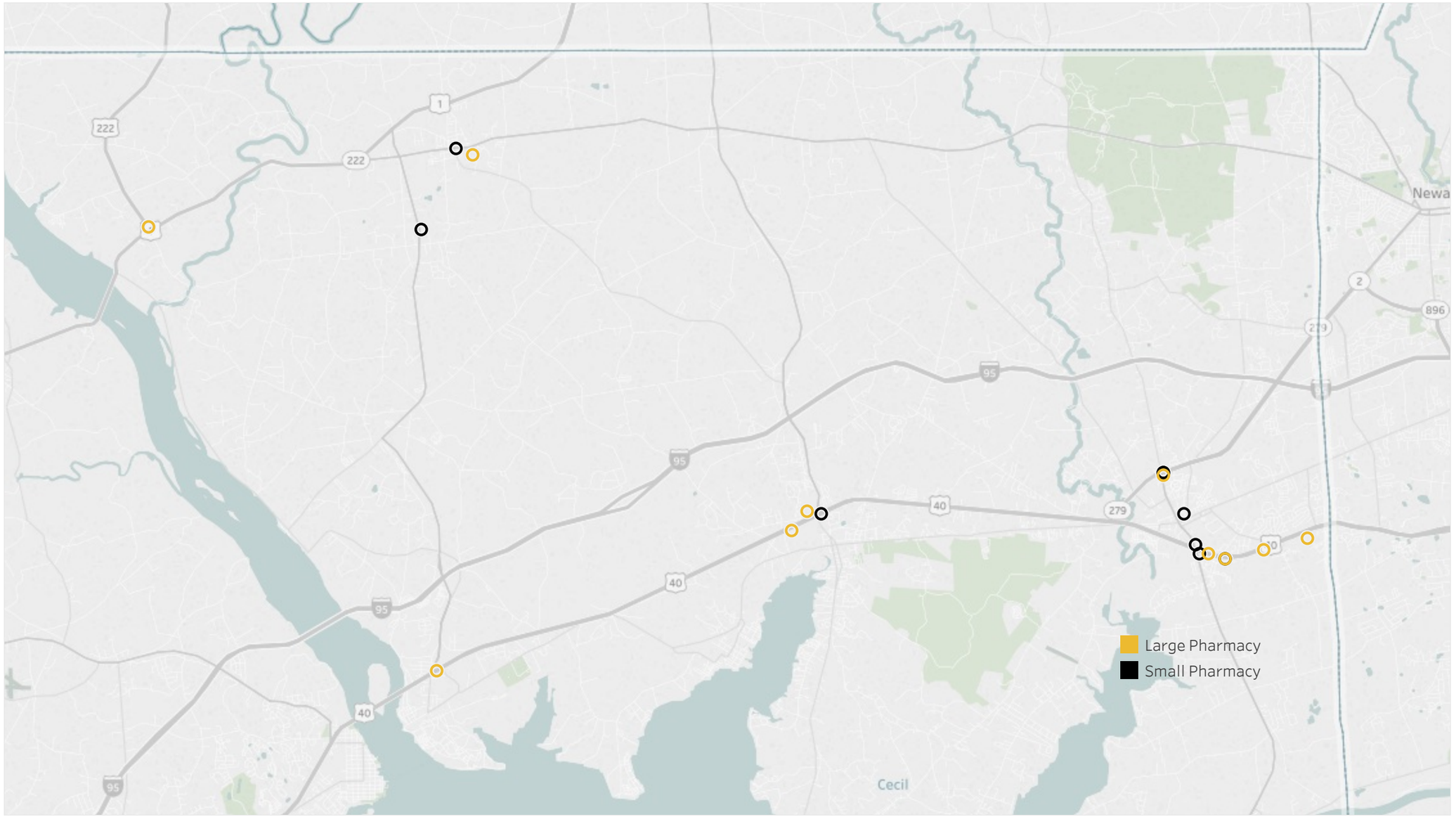
Caroline - 2018



Carroll - 2018



Cecil - 2018


222
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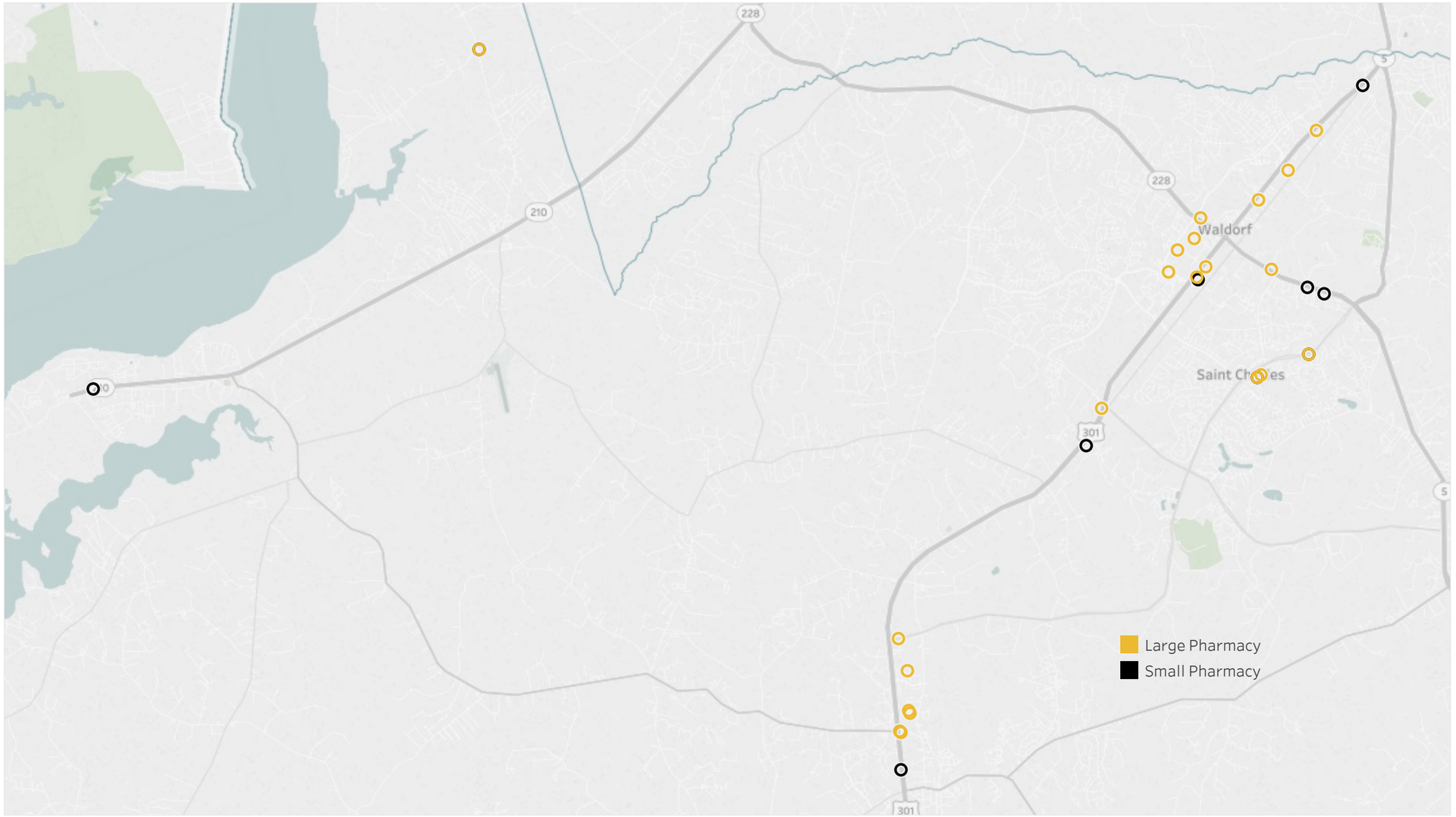
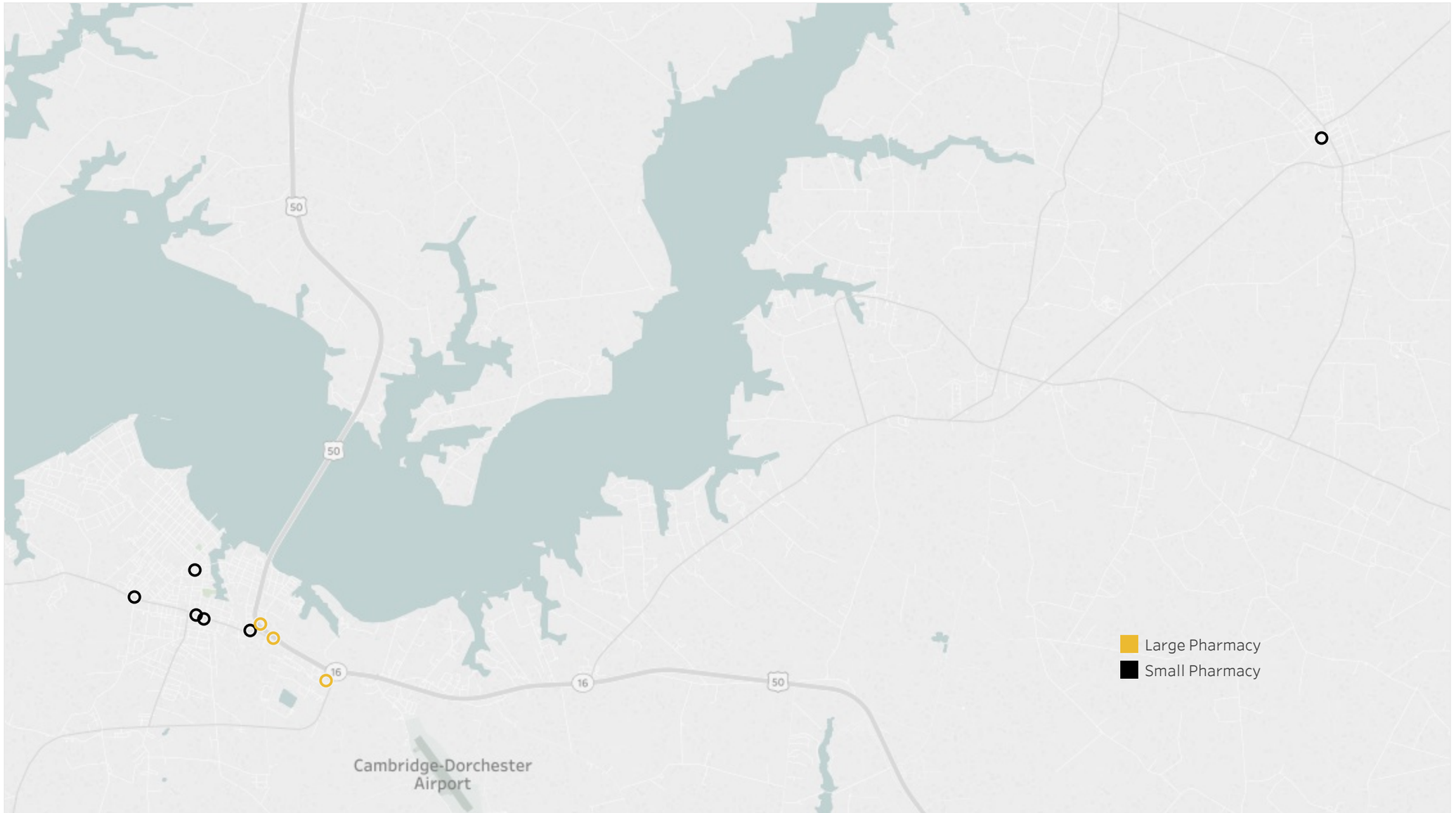
40
95
95
279
Large Pharmacy
Small Pharmacy
Cecil

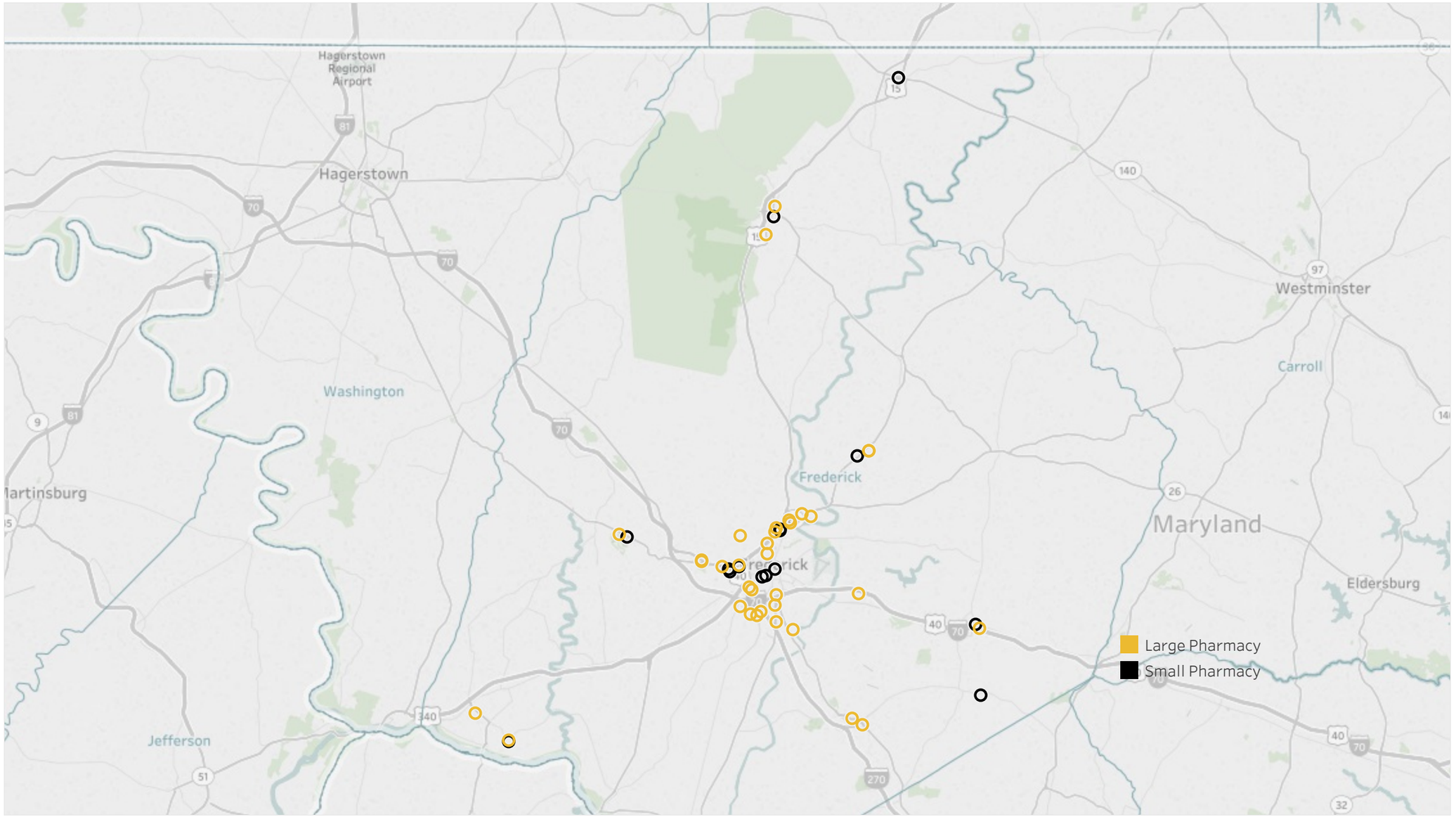
Charles - 2018



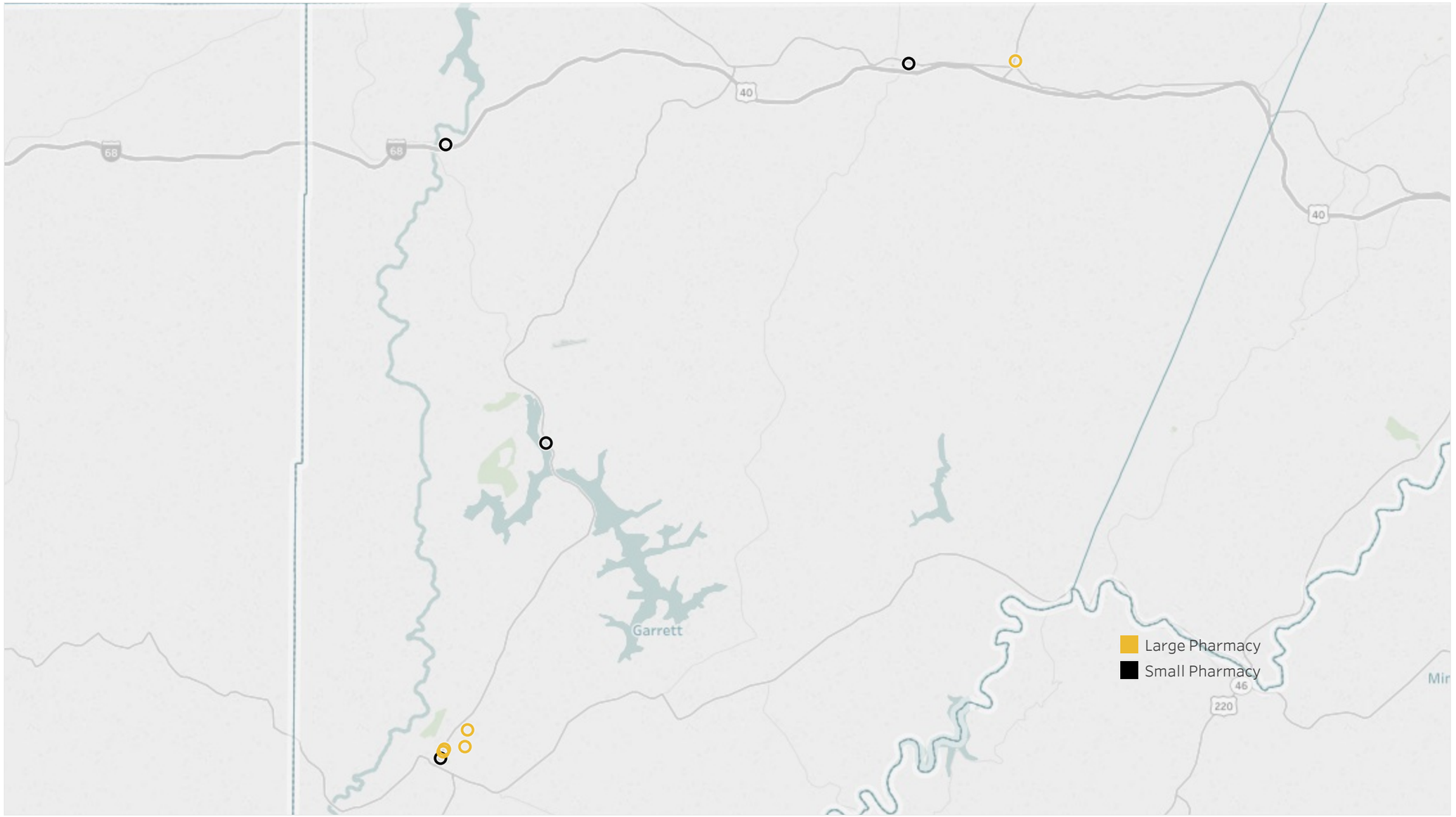
Dorchester - 2018



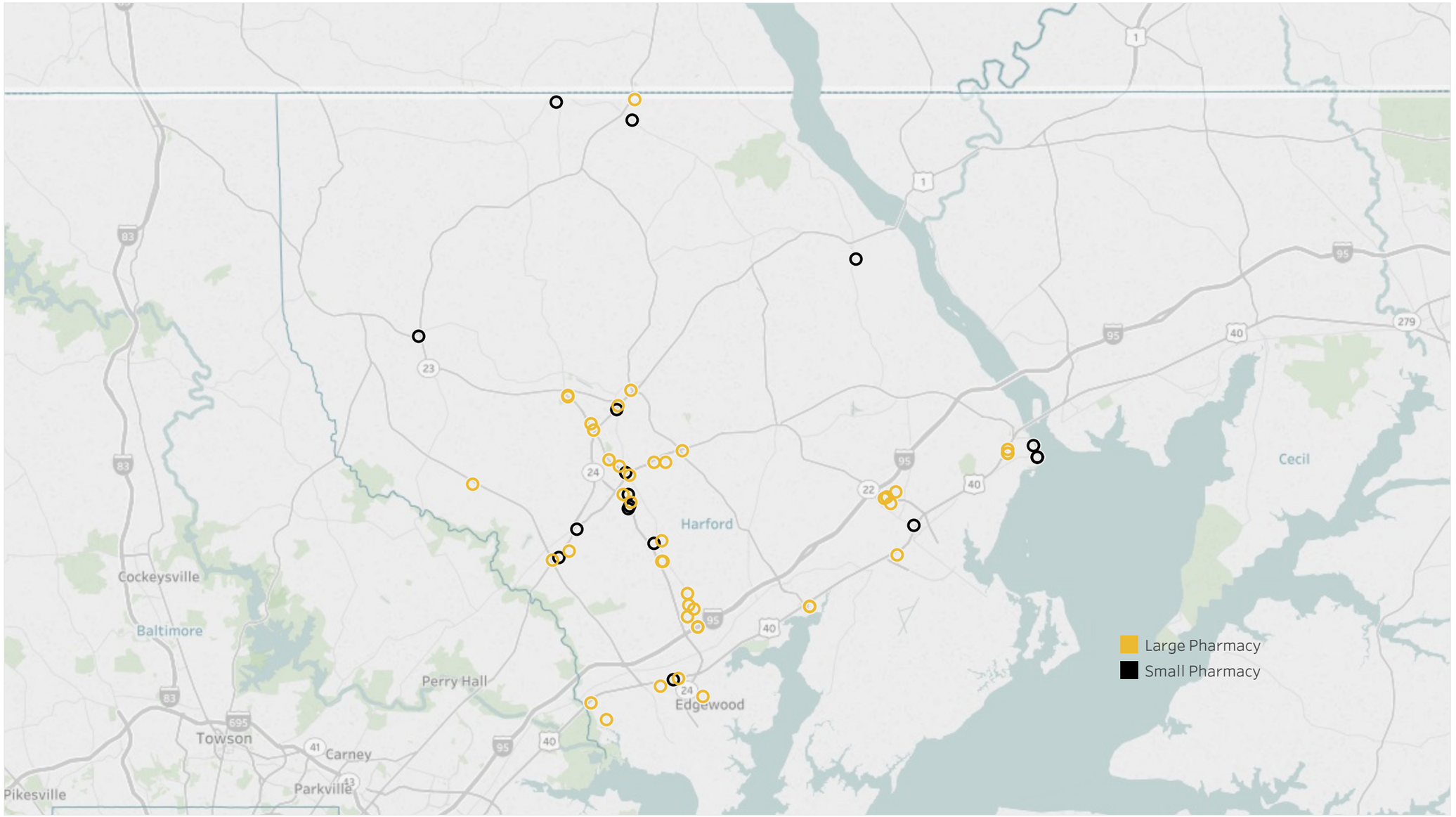
Frederick - 2018



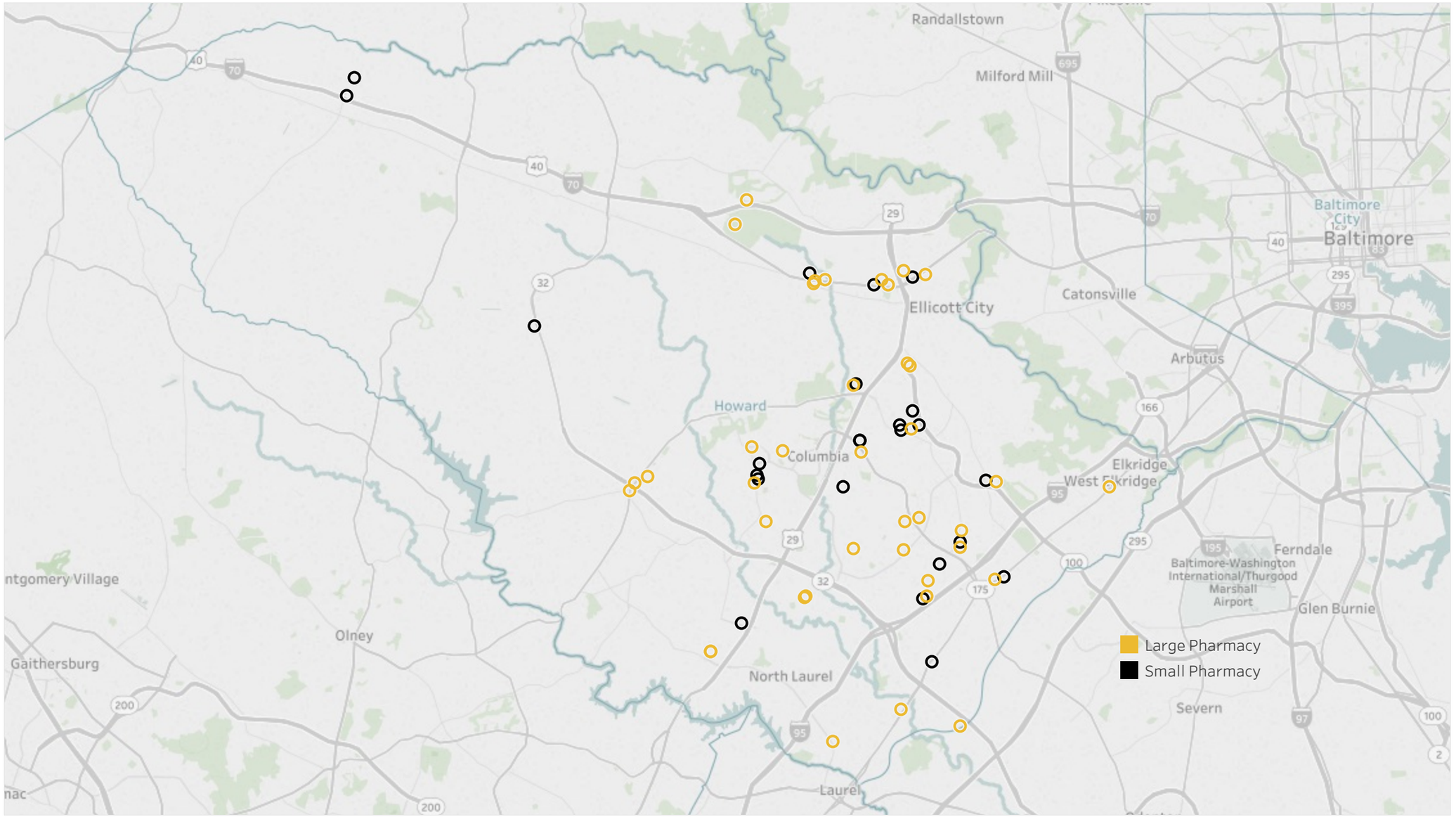
Garrett - 2018



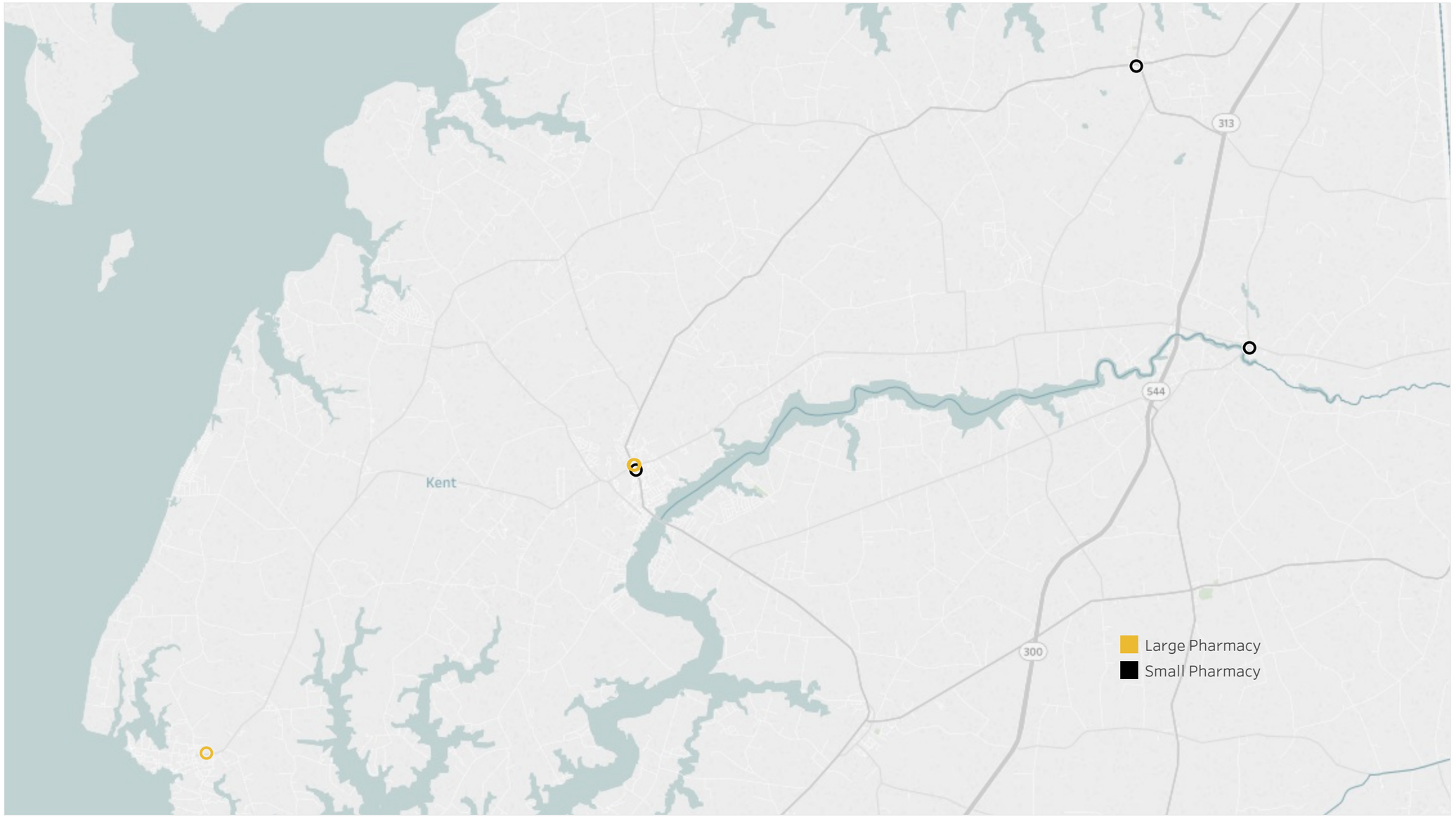
Harford - 2018



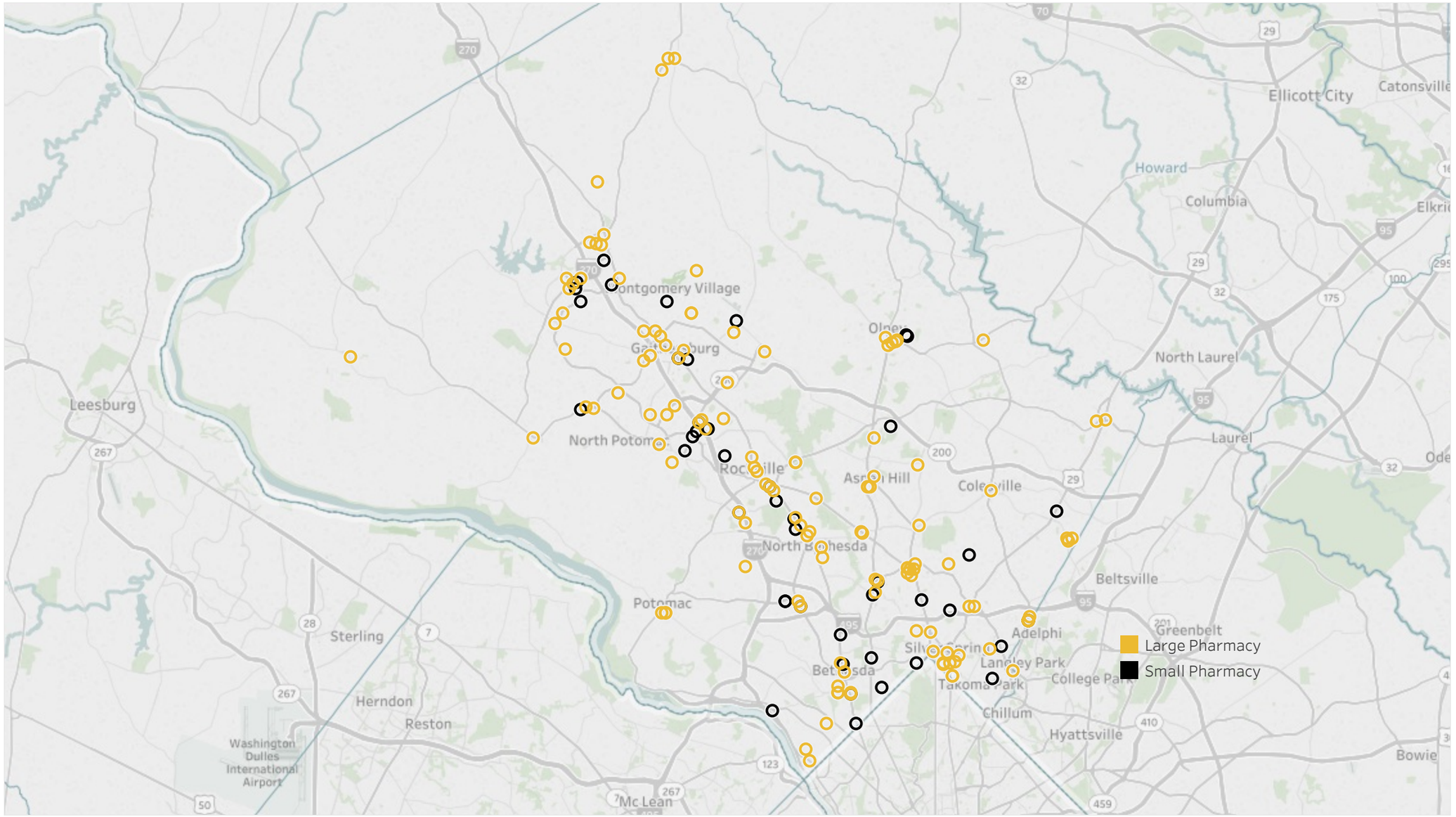
Howard - 2018


Randallstown
Milford Mill
Baltimore City
Baltimore
Catonsville
Ellicott City
Arbutus
Howard
Columbia
Elkridge
West Elkridge
Ferndale
Baltimore-Washington International/Thurgood Marshall Airport
Glen Burnie
Olney
Gaithersburg
North Laurel
Severn
Laurel
Large Pharmacy
Small Pharmacy

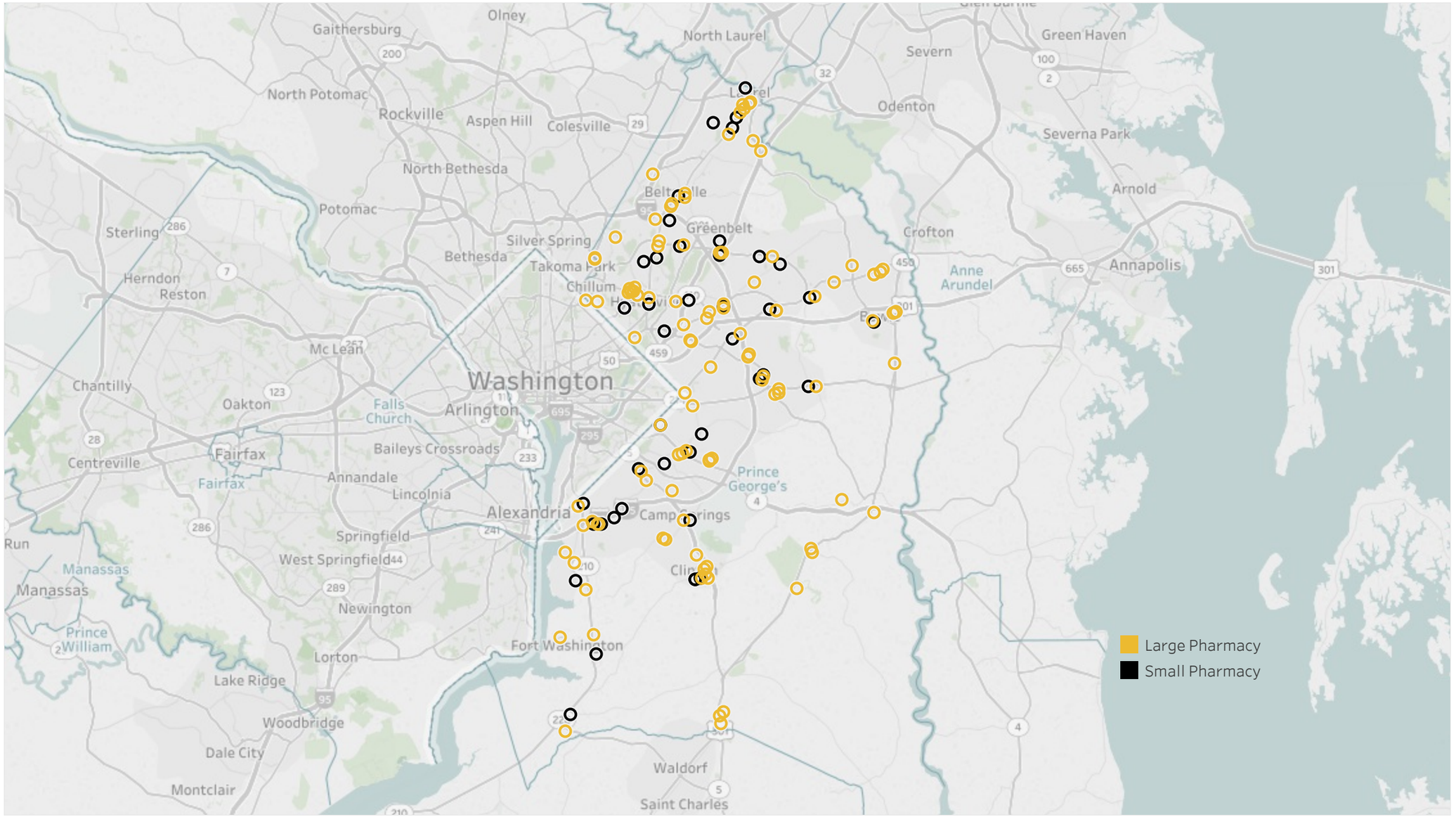
Kent - 2018



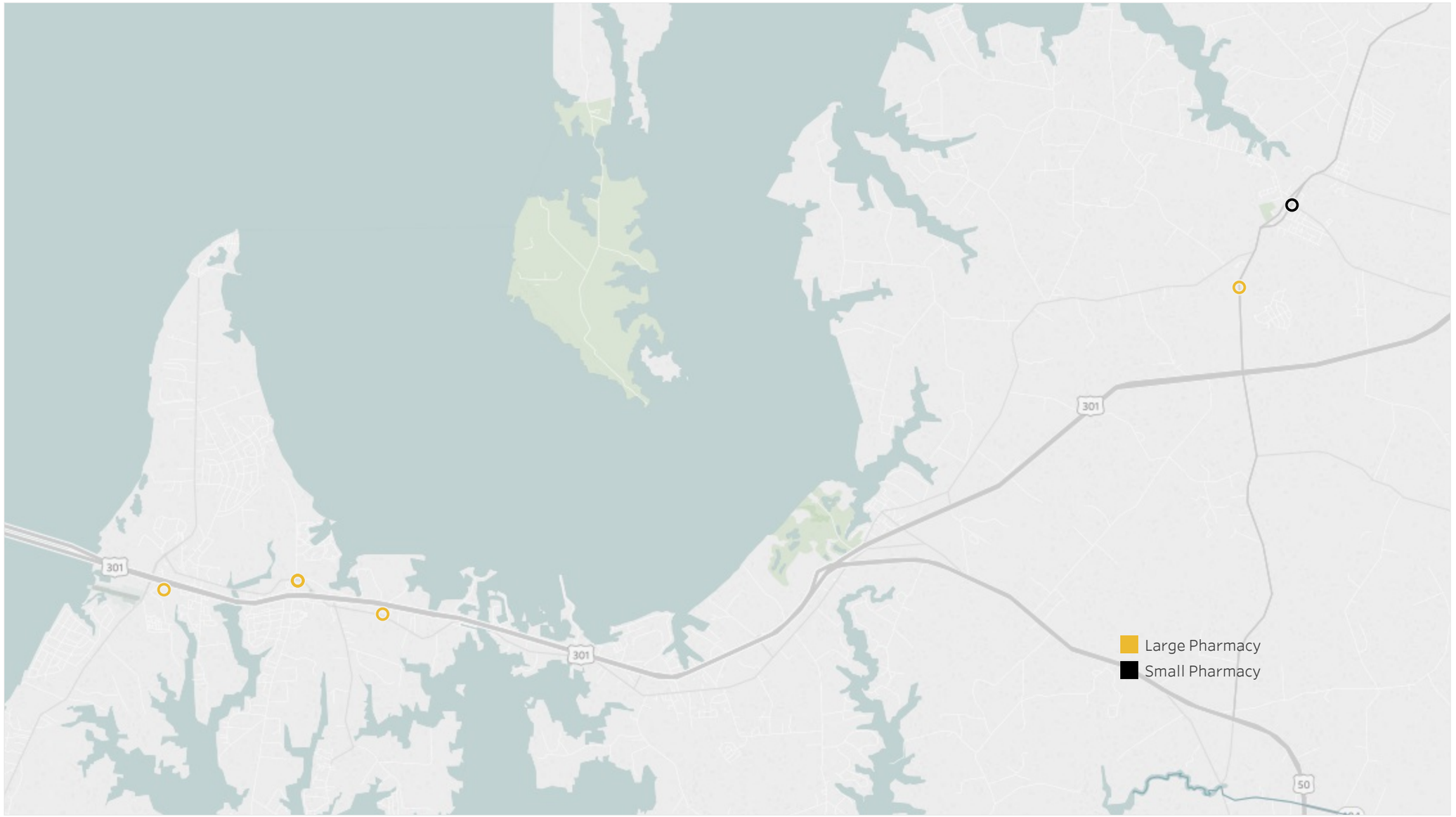
Montgomery - 2018



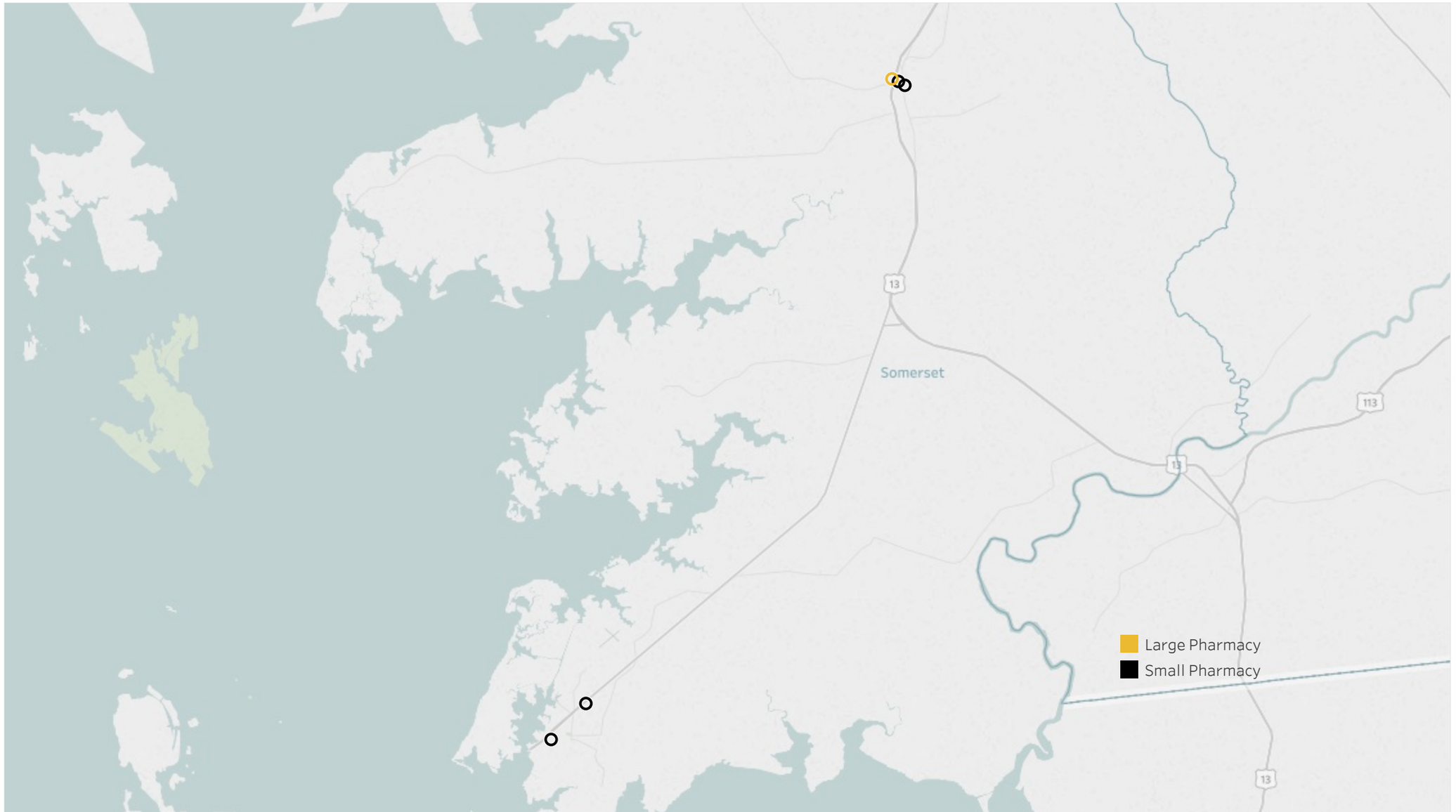
Prince George's - 2018



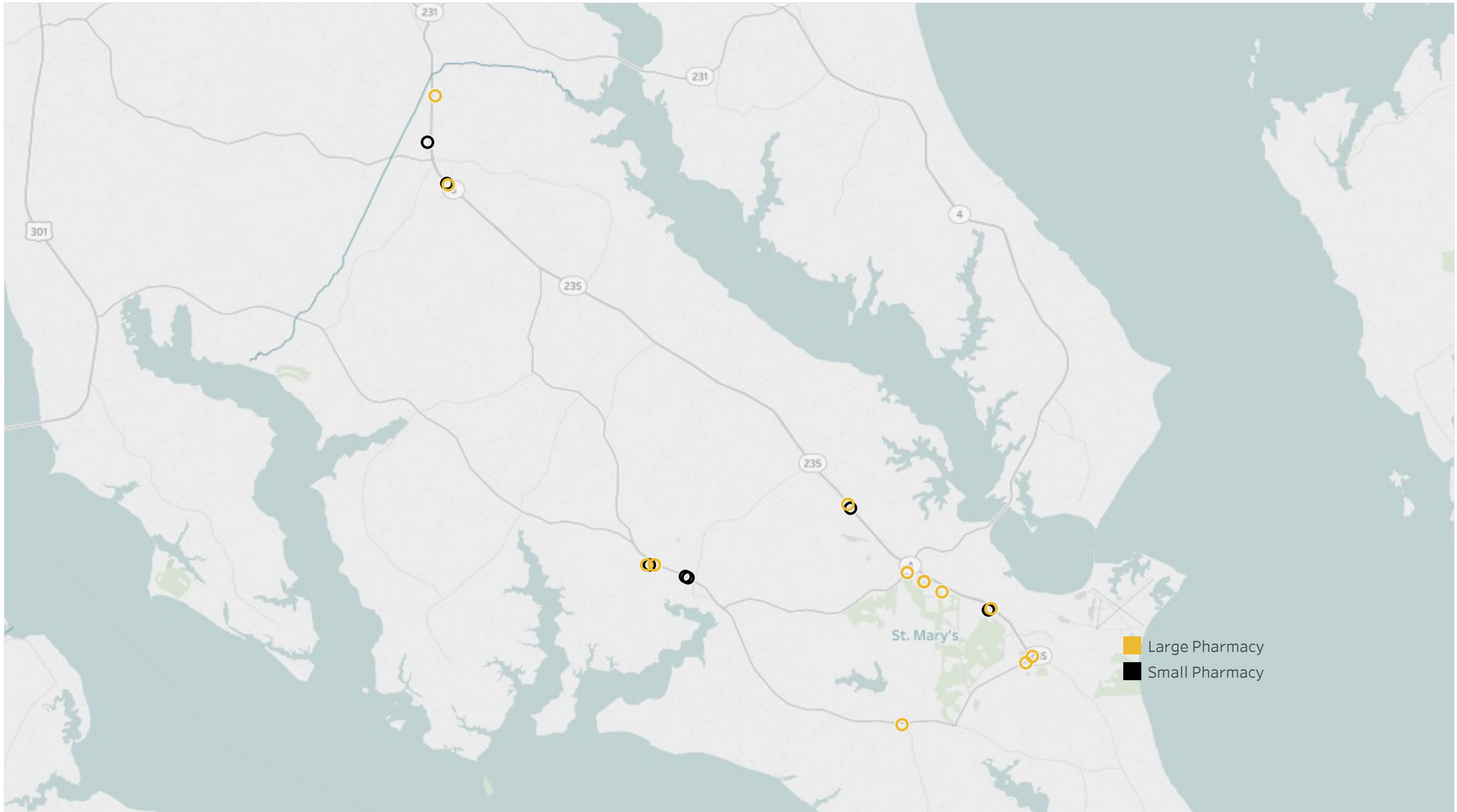
Queen Anne's - 2018



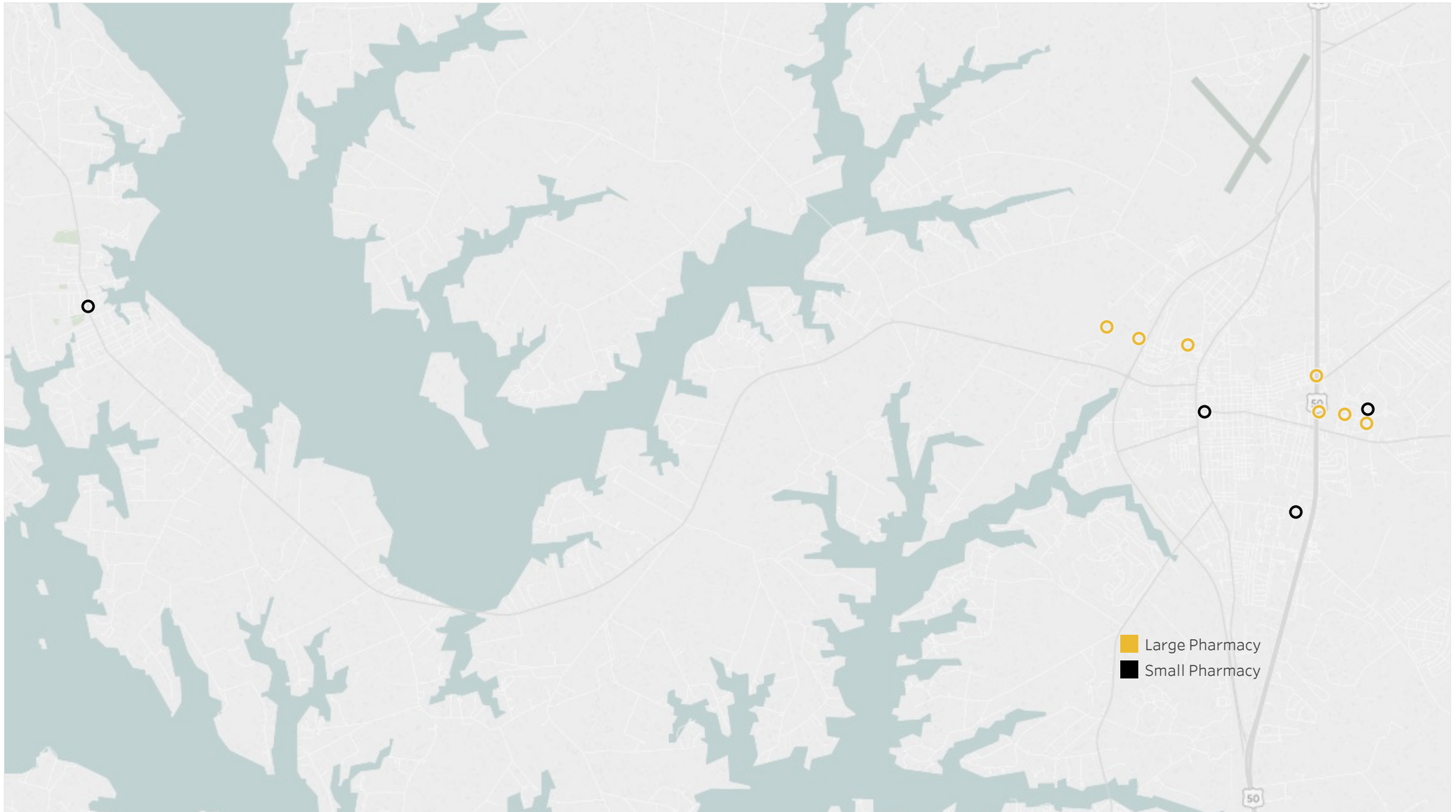
Somerset - 2018



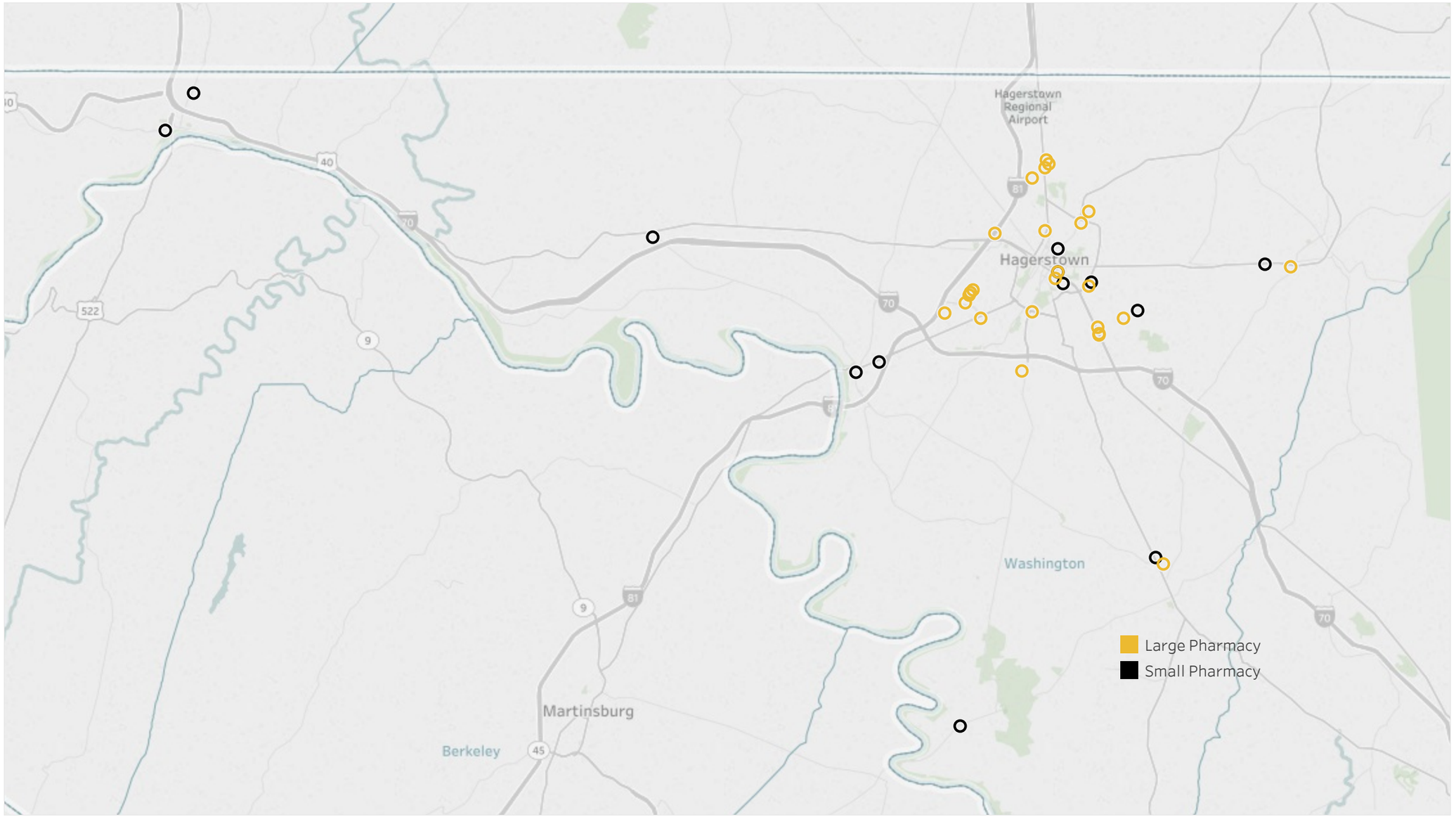
St. Mary's - 2018



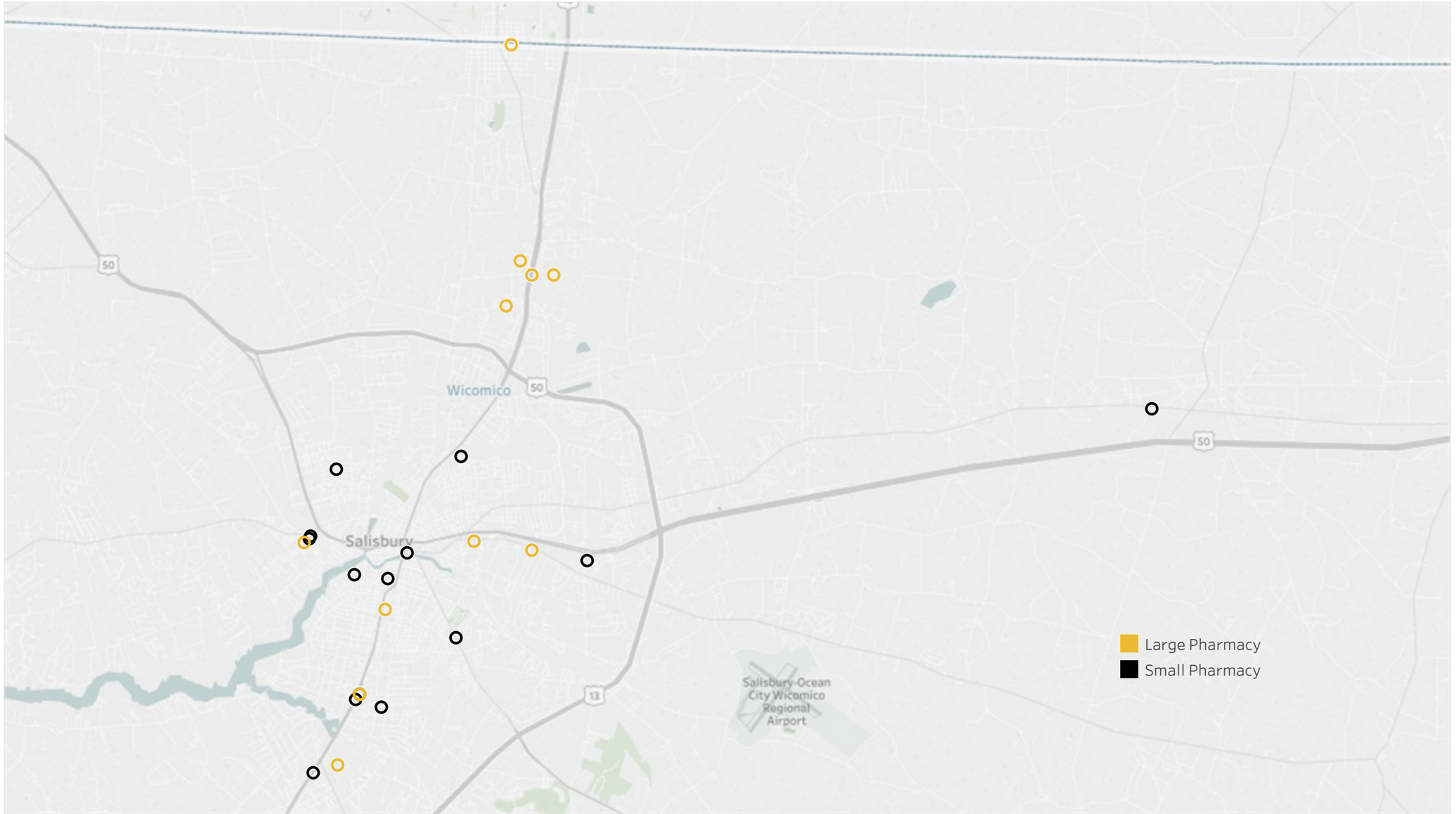
Talbot - 2018



Washington - 2018



Wicomico - 2018



Worcester - 2018