



INVESTMENT IN COMPREHENSIVE PRIMARY CARE:

# Unlocking Savings in Delaware



**SEPT. 09, 2021**

OFFICE OF VALUE-BASED  
HEALTH CARE DELIVERY  
DELAWARE DEPARTMENT  
OF INSURANCE

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# EXECUTIVE SUMMARY

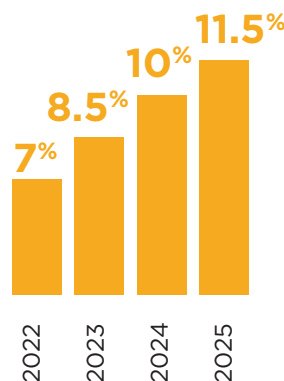
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In 2020, the Delaware Department of Insurance's Office of Value Based Health Care Delivery (the Office) recommended increasing investment in comprehensive primary care, limiting price growth for non-professional services, and better aligning incentives across healthcare providers and payers via value-based contracting. The recommendations were based on an extensive data collection and stakeholder engagement process and are detailed in **Delaware Health Care Affordability Standards: An Integrated Approach to Improve Access, Quality and Value.**

Informed by this work, in June 2021, the Delaware General Assembly passed landmark legislation, **Senate Substitute 1 for Senate Bill 120**, which requires commercial health insurance companies to implement these reforms. The legislation focuses on strengthening the state's primary care system and recognizes the pivotal role that primary care plays in healthcare affordability. Should the legislation be signed by the Governor, the Delaware Department of Insurance (DOI) and the Office are responsible for creating necessary regulations and enforcing measures to ensure carrier compliance. In parallel, the Delaware Health Care Commission (DHCC), in consultation with the Primary Care Reform Collaborative (PCRC), would develop a Delaware Primary Care Model to guide providers in reorganizing care delivery to achieve the goals of the legislation. If signed by the Governor, these components create a balance which ensures consumer costs don't increase in an outsized way.

The legislation directs Delaware health insurance carriers to spend a specified percentage of total medical expense on primary care and limits price growth for hospital and other non-professional services. Further, by 2023, it requires half of carriers' Delaware commercial health insurance business be tied to an alternative payment model that creates shared accountability for total cost of care.

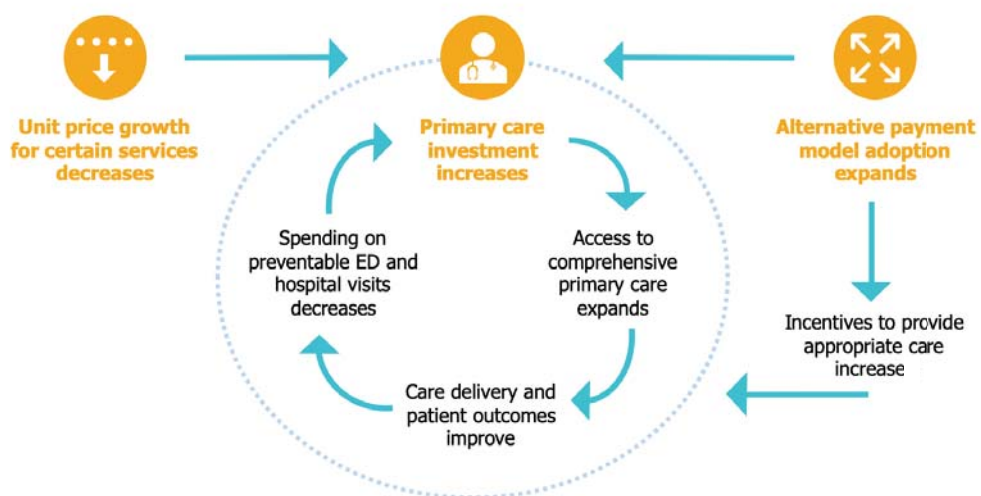
**SS 1 for SB 120's  
required investment  
in primary care as a  
percent of total  
medical expense:**



**As shown in the theory of change below, the legislation's proposed increase in primary care investment would be financed by a combination of:**

- Lower growth in hospital and other non-professional prices and
- Broad adoption of high value primary care capabilities with meaningful accountability for total cost of care.

**EXHIBIT 1:  
Theory of Change**



**Calculating Potential Savings**

This policy brief outlines the potential impact on healthcare delivery and cost when increased primary care investment funds high value primary care capabilities, and the evidence supporting this innovative legislation.

**The brief offers insight into four categories of savings:**

- Reduced Use of Emergency Department and Urgent Care for Minor, Acute Needs
- Fewer Ambulatory Care Sensitive Hospital Admissions and Emergency Department Visits
- Improved Condition Management due to Integrated Behavioral Health
- Increased Use of Lower Cost Sites of Service

For each category of savings, the Office conducted an extensive review of the existing literature, documented the potential savings, and adjusted the potential savings to account for publication bias, differences in populations, Delaware-specific market conditions and other factors. The Office worked with a team of experts including physicians, health services researchers, actuaries and others to ensure that savings projections are not counted multiple times across different initiatives. They also considered the populations studied, how savings might differ in a commercial population from the population studied, and adjusted estimates to reflect publishing bias of positive results. Estimates are based on findings from academic literature, the grey literature, and reports from other state health policy agencies. Findings were adjusted and applied to 2019 commercial data provided by the Delaware Health Information Network Health Care Claims Database (DHIN). The result of this analysis is a conservative estimate of the potential financial benefit.

**Savings assumptions included in this policy brief do not include savings to be generated by Affordability Standard 2, which limits price increases for non-professional services, as identified in the Office’s report.**

Exhibit 2 below provides an overview of the expected savings across each of the four categories. Savings were calculated based on annual spend. Research suggests it will take at least three years to achieve the highest levels of savings. More information on each of the savings assumptions is provided within the policy brief.

**EXHIBIT 2:  
Opportunity to  
Generate Savings  
with Sustained  
Investment in  
Expanded Primary  
Care Capabilities**

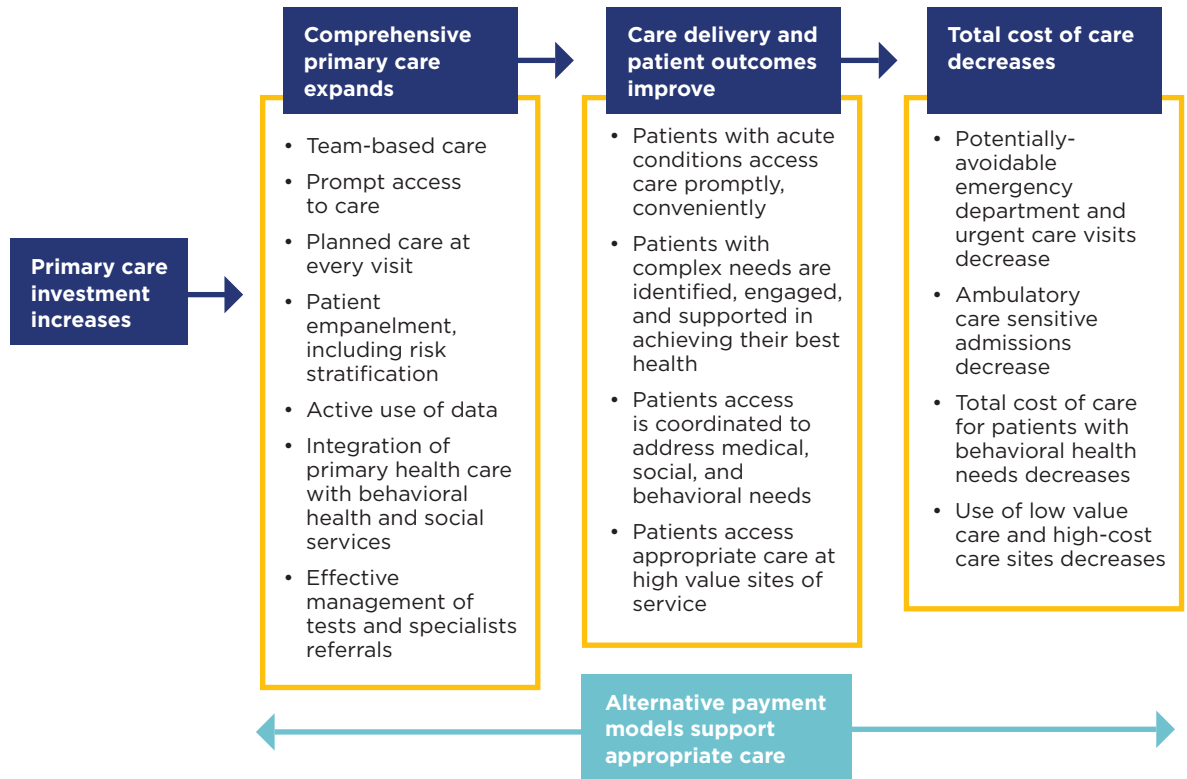
Savings Category	Percent Savings Applied	Approx. Savings
<b>Reduced Use of Emergency Department and Urgent Care for Minor, Acute Needs</b>	15% of potentially avoidable costs	\$0.7 M
<b>Reductions in Ambulatory Care Sensitive Condition (ACSC) Admissions and Emergency Department Visits</b>	10% reduction in costs for ACSC admissions	\$ 1.4 M
<b>Improved Condition Management due to Integrated Behavioral Health</b>	5% reduction in all medical costs for individuals with behavioral health diagnosis	\$14.3 M
<b>Increased Use of Lower Cost Sites of Service</b>	5% of hospital outpatient	\$ 21.0 M
<b>Total Savings</b>		<b>\$37.4 M or 3% Total Medical Expense (TME)</b>

**Importance of Total Cost of Care Accountability to Achieve Results**

The savings contemplated in this policy brief cannot be achieved through increased primary care investment alone. Without meaningful total cost of care accountability, there is no financial incentive for healthcare provider organizations — particularly those led by health systems reliant on expensive tests, emergency department visits and hospitalizations — to make the necessary investments in care transformation

to achieve these outcomes. Exhibit 3 below shows how the increased investment drives an expansion of comprehensive primary care which in turn, improves care delivery and decreases avoidable utilization and cost. The primary care capabilities highlighted in Exhibit 3: Comprehensive, Accountable Primary Care Yields Results and referenced throughout this brief are the same as those proposed by Delaware’s PCRC in 2020.

**EXHIBIT 3:  
Comprehensive,  
Accountable  
Primary Care  
Yields Results**



Large-scale studies of programs similar to Delaware’s combination of primary care investment and total cost of care accountability have not yet emerged. However, the experience of fully integrated delivery systems, provider organizations focused on Medicare Advantage patients, and several Center for Medicare and Medicaid Innovation (CMMI) models provide directional support for this path. For example, while full-risk Medicare Advantage provider organizations have reported strong results in reducing emergency department use and hospitalizations, **Mathematica’s independent evaluation of Comprehensive Primary Care Plus (CPC+)** showed a much more modest impact, noting specialists and hospitals “have incentives to deliver high-volume, high-cost care that can be a barrier” to reducing costs.

Additional evidence supporting a primary care investment model comes from the **Centers of Medicare and Medicaid Services (CMS)**, which has refined program designs to accelerate providers’ accountability for cost. In Delaware and nationally, Medicare Shared Savings Programs (MSSP) accountable care organizations (ACOs) led by physicians, known as “low-revenue” ACOs, have generally performed better than “high-revenue” ACOs, which are usually led by hospitals and health systems. Physician-led ACOs have stronger incentives to limit utilization because they do not lose revenue when they reduce unnecessary procedures, emergency department visits or hospitalizations. Overall, CMS



reported that ACOs with more financial accountability and fewer conflicting incentives performed better. Taking those lessons learned, CMS has shifted away from MSSP to its Pathways and Direct Contracting programs to increase ACO responsibility for the total cost of care. Similarly, CMMI is replacing the CPC+ primary care transformation program with Primary Care First that establishes reduced hospitalizations as a success measure.

The Maryland Total Cost of Care model is another CMMI program that illustrates the opportunity for Delaware's approach. A [July 2021 Mathematica evaluation](#) reported program savings of \$365 million in 2019 and \$391 million in 2020, putting the state on a path to meeting its savings commitments to CMMI. Since 2019, the Maryland Primary Care Program (MDPCP) has provided payments and supports to primary care practices to improve comprehensiveness and quality of primary care. The payments include fixed monthly care management fees along with modest performance-based incentive payments. In addition, practices can partner with Care Transformation Organizations that provide care managers and other care delivery supports. In addition to the support for primary care transformation, Maryland puts pressure on costs through global budgets for hospitals and additional incentives for providers to reduce total cost of care growth.

### Looking Ahead

The Office understands that transforming care delivery and payment is complex, requires collaboration and takes time. Transformation also requires significant resources, which would come through the increased primary care investment. Over the long-term, these efforts are proven to improve the value of care delivery and produce better care experiences for patients. To this end, DOI and the Office look forward to supporting commercial health insurance carriers and their healthcare provider partners in their additional individual and collective efforts.



# SAVINGS CATEGORIES

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The four categories of savings highlighted in this brief can be realized through the primary care capabilities envisioned by the PCRC, which are similar to those included in other models nationally. Examples of savings opportunities not explored in this policy brief are discussed on [page 22](#).

## For each savings category explored, this brief:

- Identifies the specific primary care capabilities necessary
- Highlights evidence on the feasibility and financial impact of implementing the capabilities
- Describes how research was used to inform the Office's savings' calculations
- Applies this approach to Delaware claims data to project savings
- Offers a real-life example of how implementing the capability would improve care delivery







## 1. Reduced Use of Emergency Department and Urgent Care for Minor, Acute Needs



### Required Primary Care Capabilities

This savings category focuses on reducing emergency department and urgent care use for minor, acute needs such as colds and sore throats.

Research finds a combination of *team-based care* coupled with *prompt access to care* can reduce patients' potentially avoidable use of the emergency department and urgent care.

Potentially avoidable use of the emergency department or urgent care centers is problematic for a few reasons: 1) emergency rooms and urgent care centers often lack access to information about the patient's medical history; 2) research finds these facilities are more likely to order low value care such as unnecessary tests and treatments, some of which subject patients to unnecessary risk such as the increased risk from radiation exposure during an x-ray or a CT scan; and 3) care at emergency rooms and urgent care centers tends to be more expensive, even for the same services, particularly when considering the facility fees charged by emergency rooms and some urgent care centers when care is delivered in those environments.



### About the Evidence

Though not all studies show significant impact, several studies have found increased access to high quality, comprehensive primary care can produce modest reductions in emergency department use. Examples of this research are described in more detail below. Considering the somewhat mixed evidence, the Office applied a particularly conservative lens to the savings estimates for this category.

#### **CPC+**

A 2020 independent evaluation of the first three years of the five-year model found CPC+ decreased emergency department visits by approximately 1.5% each in both of the program's two tracks and the effects became more pronounced over time. Evaluators noted the "persistence of small, favorable effects on emergency department visits" over each of the three years of the program was promising.

#### **Maryland Models**

A 2021 independent evaluation of Maryland's models found emergency department visits in Maryland increased less than other states nationally from 2013 to 2018. Maryland also outperformed other states when the evaluators studied only potentially

avoidable emergency department visits. These results are from care delivered before Maryland moved to its MDPCP program. However, many Maryland practices were working on care transformation as part of an ACO or a patient-centered medical home (PCMH).

### **PwC ROI for Primary Care: Building the Dream Team**

A 2016 analysis by PwC's Health Research Institute (HRI) found that a primary care dream team designed around the needs of complex chronic disease patients could potentially result in \$1.2 million in savings for every 10,000 patients served. If designed with consumer needs and preferences in mind, PwC found the primary care dream team can bring together wellness, prevention, and healthcare to address the whole person. A portion of the \$1.2 million in estimated savings stemmed from an assumed 20% reduction in all emergency department costs.

### **The Patient Centered Medical Home's Impact on Cost and Quality**

In 2016, the national Primary Care Collaborative (PCC) published an extensive review of the evidence from recent primary care medical home initiatives. The evidence from these early models was both promising and mixed. It also pointed to many lessons learned that have been incorporated into more recent work including the importance of multi-payer alignment, expanded care teams and clear metrics of accountability for cost and quality.

- **Colorado Multi-Payer Primary Care Medical Home Pilot** - Five private health plans and the State's high-risk pool carrier, Cover Colorado, partnered to financially support 16 primary care practices in developing PCMH programs for three years, from 2009 to 2012. This project laid the foundation for future primary care medical home pilots in Colorado including the Colorado Comprehensive Primary Care Initiative, the Colorado Medicaid Accountable Care Collaborative, and the Colorado Medical Home Initiative. One of the findings of the work was an 11.8% reduction in emergency department costs.
- **Oregon Coordinated Care** - In Oregon, coordinated care organizations (CCOs) are networks of all types of health care providers (physical health care, addiction specialists, mental health care and dental care providers) who work together in their local communities to serve people who receive health care coverage under the Oregon Health Plan, the state's Medicaid plan. Emergency department visits for individuals enrolled in coordinated care organizations declined 22% during the first three years of the program, from 2011 to 2014.



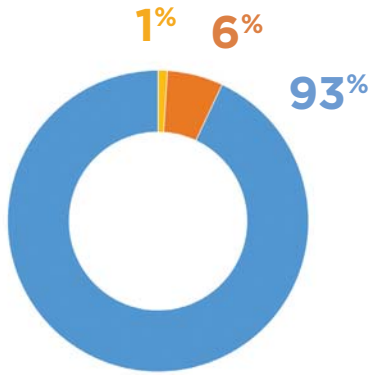
### **Savings Percentage Applied and Rationale**

For this analysis, the Office applied a methodology that was initially developed by the California Department of Health Care Services for Medi-Cal, its Medicaid program, updated by the Oregon Health Authority and now used in several states including Oregon, Washington, Missouri, and Virginia. The methodology, found in Appendix 1, takes a conservative view of the types of visits that could be avoided, focusing on certain acute conditions such as colds and sore throats. The Office's estimates anticipate a 15% reduction in emergency department and urgent care center costs for visits for diagnoses defined by the methodology as potentially avoidable, approximately \$2.6 million and \$2.4 million respectively, a relatively small proportion of costs at these facilities. Note this reduction was only applied to members without a behavioral health diagnosis as the savings associated with those members are included in the integrated behavioral health category.

## Estimated Savings

### Emergency department costs

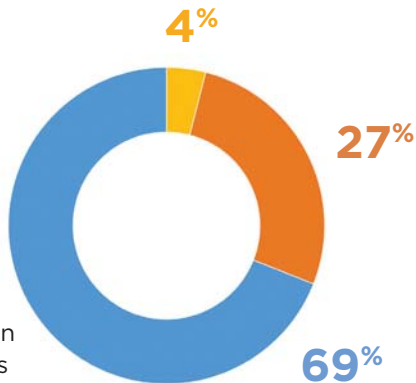
- Not potentially avoidable emergency department costs
- Potentially-avoidable emergency department costs
- Estimated reduction in emergency department costs



<b>\$ 51.1 M</b>	Total emergency department costs
<b>\$ 3.5 M</b>	Potentially avoidable costs for minor, acute needs
<b>\$ 2.6 M</b>	Potentially avoidable costs for minor, acute needs for individuals without a behavioral health diagnosis
<b>\$ 0.4 M</b>	15% reduction applied to potentially avoidable costs only for individuals without a behavioral health diagnosis

### Urgent care costs

- Not potentially avoidable urgent care costs
- Potentially-avoidable urgent care costs
- Estimated reduction in urgent care costs



<b>\$ 9.7 M</b>	Total urgent care costs
<b>\$ 3.0 M</b>	Potentially avoidable costs for minor, acute needs
<b>\$ 2.4 M</b>	Potentially avoidable costs for minor, acute needs for individuals without a behavioral health diagnosis
<b>\$ 0.4 M</b>	15% reduction applied to potentially avoidable costs only for individuals without a behavioral health diagnosis

## REAL LIFE EXAMPLE

Graciela picks up her two-year-old daughter Rosa from daycare after work. The teacher says Rosa has been fussy and pulling on her ears for the last couple of hours. Graciela suspects Rosa has another ear infection but is not sure. If it is an ear infection, Graciela knows it's likely to be a long, uncomfortable night for both her and Rosa. Rosa's pediatrician's office recently expanded its in-person hours to 7 p.m. on weekends and virtually until 11 p.m. and keeps plenty of appointments open for patients with acute needs. With these new expanded hours, Graciela is able to take Rosa in to see her pediatrician quickly and avoid an emergency department visit.





## 2. Fewer Ambulatory Care Sensitive Hospital Admissions and Emergency Department Visits



### Required Primary Care Capabilities

This savings category is focused on supporting patients, particularly those with complex chronic conditions, in better monitoring and managing their conditions to prevent costly, avoidable complications.

*Achieving these savings requires prompt access to care, team-based care, and planned care at every visit as well as active use of data that enables patient empanelment including risk stratification.*

Provision of these enhanced capabilities would impact admissions for ambulatory care sensitive conditions (ACSCs) for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. A list of measures used to identify these conditions can be found in Appendix 2. In 2019 in Delaware, highest spend ACSCs included hypertensive heart disease with heart failure, type 2 diabetes with complications, pneumonia, dehydration and asthma.



### About the Evidence

There have been several studies showing the power of forward-thinking coordinated care management to improve health outcomes and reduce costs, particularly for individuals with multiple or complex chronic conditions. Examples of these studies are described in more detail below. As noted earlier in this report, the alignment of incentives to manage total cost of care is a critically important motivator for success and consistent with the Office's goals as outlined in its Affordability Standards report. Without meaningful total cost of care accountability, health systems face a potentially self-defeating dilemma since investment in true primary care transformation carries the risk that if it is successful, it reduces important revenue streams such as emergency department visits and hospital admissions.

### **CPC+**

The 2020 evaluation of the first three years of CPC+ found mixed results regarding the program's ability to reduce hospitalizations. For Track 2 practices, those who received higher care management fees, the third year of the program was the first with a statistically significant estimated reduction in hospitalizations, of 1.7%, contributing to an annualized average reduction of just under 1% over the first three years. CPC+ did not have a statistically significant effect on hospitalizations for beneficiaries in Track 1 practices. The evaluation suggested the differences between tracks could be that the larger care management fees and more advanced care delivery requirements enabled Track 2 practices to improve care delivery more than Track 1 practices, which might have led to slightly better service use outcomes.

### **Maryland Models**

In Maryland, hospitalizations, including readmissions and hospitalizations for ACSCs, have been declining and declining faster than the national average, the 2020 independent evaluation found. For example, when the Maryland All Payer Model (MDAPM) launched in 2013, Medicare hospital admission rates were above the 75th percentile across states. From 2013 to 2018, hospitalizations in Maryland fell about 17% versus 8% nationally. As a result, by 2018 Maryland had fallen to about the 40th percentile across states, a marked improvement. There is still work to do under Maryland's newest program, MDPCP. In 2018, almost 20% of hospital stays in Maryland met the ACSC definition. Additionally, there was substantial variation in this metric across the state. Maryland regions with the highest rates of potentially preventable hospitalizations in 2018 were about two times higher than the lowest regions.

### **PwC ROI for Primary Care: Building the Dream Team**

A 10% reduction in costs associated with hospital admissions was an important piece of the savings contemplated in the 2016 PwC analysis. The article cites the experiences of several organizations that developed clinician payment incentives to support expanded care teams for specific groups of patients. Some provider organizations are integrated with health plans, including Geisinger in Pennsylvania. Other provider organizations entered into risk-based contracts with government and commercial insurers and a few partnered with employers or unions in shared savings arrangements. PwC reported all of the arrangements reduced inpatient admissions 6% to 21%.

### **The Patient Centered Medical Home's Impact on Cost and Quality**

The PCC's evaluation referenced above also found reductions in hospitalizations in some programs. Among patients with two or more illnesses, the Colorado PCMH pilot produced a 10.3% decline in the rate of hospital admissions for ACSCs. In 2007, Pennsylvania launched a Chronic Care Initiative (CCI) focused on improving the care of patients with chronic diseases by helping primary care practices implement the National Committee for Quality Assurance PCMH model. Twenty-five practices initially participated, focusing on improving care for patients with diabetes, with the goal of applying lessons learned and practice changes to other patient populations. Over time, participation grew to 175 practices caring for more than 1 million patients. After three years, CCI reported a 1.7% reduction in hospital admissions as one of the findings from the work.



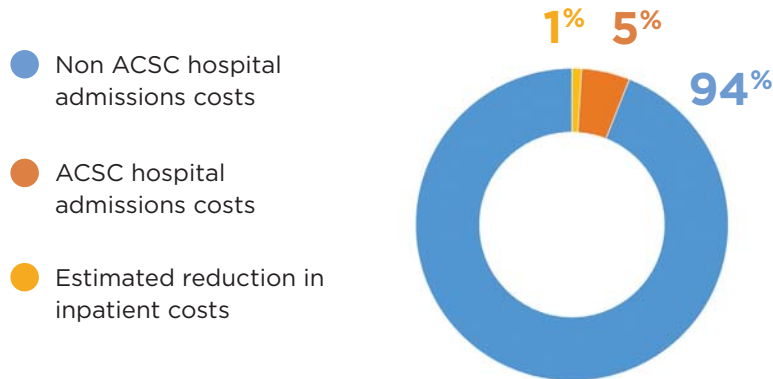


### Savings Percentage Applied and Rationale

The Office focused its savings estimates on hospital admissions and emergency department visits for ACSCs, which as noted above, are those for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. They are often used as an indicator for primary care quality and accessibility, including as part of the Agency for Healthcare Research and Quality Prevention Quality Indicators. Consistent with the research, the Office estimated a 10% reduction in costs associated with these admissions.

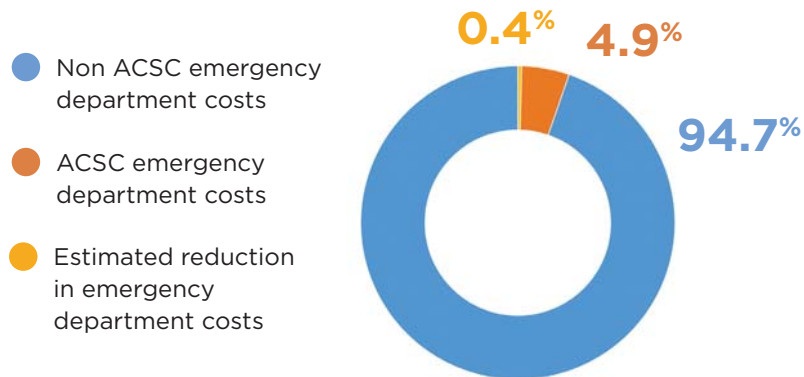
## Estimated Savings

### Hospital admissions costs



<b>\$ 308.2 M</b>	Total hospital admissions costs
<b>\$ 17.5 M</b>	Potentially avoidable costs for ACSC admissions
<b>\$ 12.0 M</b>	Potentially avoidable costs for ACSC admissions for individuals without a behavioral health diagnosis
<b>\$ 1.2 M</b>	10% reduction applied to potentially avoidable costs only for individuals without a behavioral health diagnosis

## Emergency department costs



<b>\$ 9.7 M</b>	Total emergency department costs
<b>\$ 3.0 M</b>	Potentially avoidable costs for ACSC emergency department visits
<b>\$ 2.4 M</b>	Potentially avoidable costs for ACSC emergency department visits for individuals without a behavioral health diagnosis
<b>\$ 0.4 M</b>	10% reduction applied to potentially avoidable costs only for individuals without a behavioral health diagnosis

## REAL LIFE EXAMPLE

Mary has had diabetes for a few years and has struggled to change her diet. Sometimes Mary also forgets to take her diabetes medication. Mary is worried that if she can't get her diabetes under control, she will end up with a serious complication like kidney disease.

When Mary visited her primary care provider, the doctor told her about new professionals on the team, including a nutritionist. Mary liked that she could talk with these providers using a video chat app on her iPad, so she didn't have to take more time off work. Mary also shared that she likes to communicate by text, so her primary care provider offered to have a nurse text her every couple of weeks to see how things are going. At her next check up, Mary's blood sugar was improving and she felt more in control of her health.





### 3. Improved Condition Management due to Integrated Behavioral Health



#### Required Primary Care Capabilities

Research finds that a *team-based, primary care approach* to managing behavioral health needs can support better management of a patient's overall health.

Integration of primary health care with behavioral health often includes:

- Screening for depression, anxiety, substance use disorder and social needs, an important contributor to behavioral and physical health needs.
- Brief Interventions to address issues such as anxiety, depression, substance abuse, pain management, prevention and intervention with health risk behaviors, suicide, and others.
- Screening, Brief Intervention, Referral and Treatment (SBIRT) programs for substance use.
- Care coordination to support communication and collaboration across the care team including the patient, caregivers, primary care provider, and specialists including behavioral health providers not integrated with the practice.



#### About the Evidence

##### **Milliman Potential Economic Impact of Integrated Medical-Behavioral Healthcare**

Actuaries at Milliman noticed healthcare costs for individuals with a behavioral health diagnosis can be two to three times those without a behavioral health diagnosis, and the majority of those costs were related to care for chronic conditions outside of behavioral health. Hoping to better understand opportunities to reduce those costs, Milliman estimated the potential impact of integrated behavioral health.

After conducting an extensive literature review on integrated behavioral health models and claims analysis, Milliman projected a 5% to 10% reduction in total medical costs for individuals with a behavioral health diagnosis when behavioral health services are integrated with primary care.

### **The Cost Effectiveness of Embedding a Behavioral Health Clinician into an Existing Primary Care Practice to Facilitate the Integration of Care: A Prospective, Case-Control Program Evaluation**

Blue Cross Blue Shield of Kansas City and collaborators from behavioral health and primary care evaluated the cost effectiveness of integrating behavioral health services into a primary care practice using a prospective, case-control design. The study found integrating behavioral health into the practice was associated with \$860 per member per year savings or 10.8% savings in costs for BCBSKC patients.

### **Sustaining Healthcare Across Integrated Primary Care Efforts (SHAPE)**

This Colorado initiative analyzed the cost savings associated with utilizing an alternative payment methodology to support integrated behavioral health services in primary care practices. Six primary care practices in Colorado participated, with at least one on-site behavioral health clinician providing integrated behavioral health services. Three practices received non-fee-for-service payments for 18 months and three did not. The study found practices receiving the SHAPE payment generated approximately 3% to 5% in net cost savings, primarily achieved through reduction in downstream utilization (e.g., hospitalizations).



### **Savings Percentage Applied and Rationale**

In light of the range of cost savings and in recognition that not all patients would agree to engage with a behavioral health clinician, the Office applied a 5% reduction to all medical costs for all individuals with a behavioral health diagnosis. Total medical costs for individuals with a behavioral health diagnosis were approximately 25% of medical costs for the entire DHIN commercial population. The Office did not estimate any savings for individuals with a behavioral health diagnosis for any other category of savings to avoid double counting or duplication of savings.

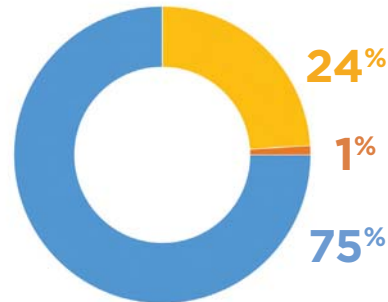




## Estimated Savings

### Costs for Individuals with a Behavioral Health Diagnosis

- Total medical expense for those without a behavioral health diagnosis
- Total medical expense for those with a behavioral health diagnosis
- 5% savings of total medical expense for those with a behavioral health diagnosis



**\$ 1.1 B**

Total medical costs for commercially-insured individuals

**\$ 285.5 M**

Total medical costs for commercially-insured individuals with a behavioral health diagnosis

**\$ 14.3 M**

5% reduction applied to total medical costs of individuals with behavioral health diagnosis

## REAL LIFE EXAMPLE

Tim was diagnosed with bipolar disorder seven years ago. He also has hypertension. Tim has a hard time keeping track of all of the physicians he sees and the medications they prescribe. Tim's primary care provider recently hired Theresa, a behavioral health clinician. Theresa works with Tim to come up with a plan to keep track of his medications and she also checks in with him to hear how he is doing, address any ongoing challenges and remind him about upcoming appointments. With Theresa's help, Tim is able to take his medication more consistently and he feels more in control of his health.







## 4. Increased Use of Lower Cost Sites of Service



### Required Primary Care Capabilities

One of the most important functions of a comprehensive primary care team is to guide patients through the healthcare system and support *effective management of tests and specialists' referrals*.

Primary care providers can help patients coordinate care from multiple specialists, talk through care options and gain a better understanding of which medications, tests, and procedures will provide the greatest value. There is also a responsibility for health insurance carriers to provide support. In addition to disseminating information on comparative quality and value to enrollees and their primary care providers, they should align benefit design and move quickly to expand their own site neutral payment policies, reducing the burden on providers and consumers to navigate their way toward higher value tests and procedures.



### About the Evidence

#### Health Savers Initiative

The purpose of the Health Savers Initiative (HSI) is to develop policy-ready options to lower health care costs. Currently, Medicare and commercial health insurance carriers pay higher reimbursement rates for medical services performed in hospital outpatient departments than for the same services when they are performed at physicians' offices or freestanding facilities, often referred to as ambulatory surgery centers.

HSI developed savings estimates showing how much could be saved if reimbursement rates were the same for the same service, regardless of where care was delivered. This policy, often called site-neutral payment reform, has bipartisan support and has been recommended by the Medicare Payment Advisory Commission (MedPAC) and proposed by Presidents Trump and Obama.

Medicare has tried to move forward with this policy but has faced opposition and lawsuits from hospitals. Recently, the Supreme Court declined to hear an appeal of a lower court decision upholding HHS' site-neutral payments policy. The appeal was requested by the American Hospital Association (AHA) as part of a multi-year legal battle challenging HHS' authority to bring Medicare payments to off-campus hospital clinics in line with independent physician practices.

Since the Supreme Court has declined to hear the case, it paves the way for Medicare and commercial health insurance carriers to implement site-neutral payments. HSI has estimated the savings to be between \$140 to \$466 billion nationally in non-Medicare healthcare costs over the next decade.

### **“What Are the Potential Savings of Steering Patients to Lower Sites of Care?”**

A group of health economists at Harvard University used commercial healthcare claims data from California to estimate the impact of price variation among providers on total healthcare costs. The researchers focused on three types of non-emergent, shoppable outpatient services: laboratory tests, imaging services, and durable medical equipment (DME). They found that steering patients who visit providers with above-median prices to their market's median-priced provider would save 42%, 45%, and 15% of laboratory, imaging, and durable medical equipment spending, respectively. Together, the researchers determined, these savings represent 11% of total outpatient spending for the population.

### **“Location, Location, Location: Cost Differences in Health Care Services by Site of Treatment — A Closer Look at Lab, Imaging, and Specialty Medications”**

Paul Fronstein at the Employee Benefits Research Institute (EBRI) looked at price differences across 25 outpatient healthcare services ranging from lab services and imaging tests to specialty medications. He found employers could cut costs by 1% simply by moving care away from more costly hospital outpatient settings or by negotiating site-neutral pricing for those 25 healthcare services.

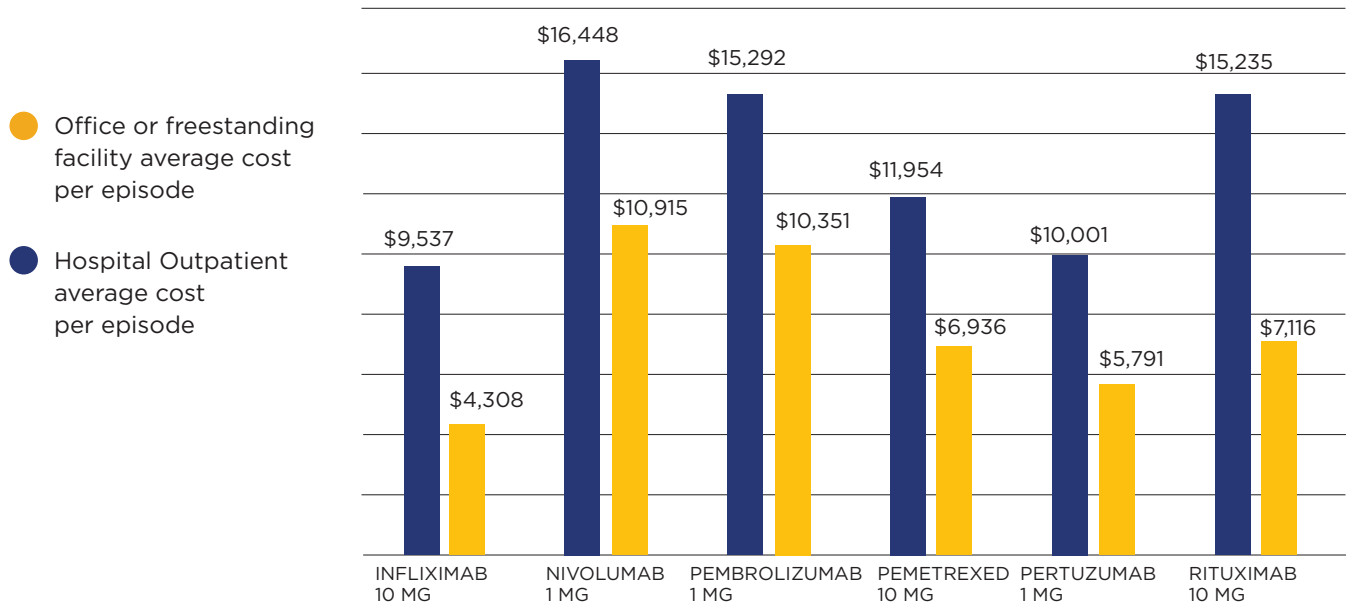


### **Savings Percentage Applied and Rationale**

With the findings from the Harvard team as a guide, the Office began by estimating an 11% reduction in outpatient costs. Concerned the initial estimate may be too aggressive, the Office recalculated the potential savings, estimating a 5% reduction in outpatient costs or savings of approximately \$20 million. The Office then conducted additional analyses to test whether this was a reasonable assumption. Similar to the Harvard and the EBRI analyses, the Office focused on two areas of outpatient care, specialty medications and imaging. For each analysis, the Office began by confirming the service was already frequently performed in both the hospital outpatient and the physician office or freestanding facility settings. Savings were then calculated using cost and utilization data for these services in the HCCD.

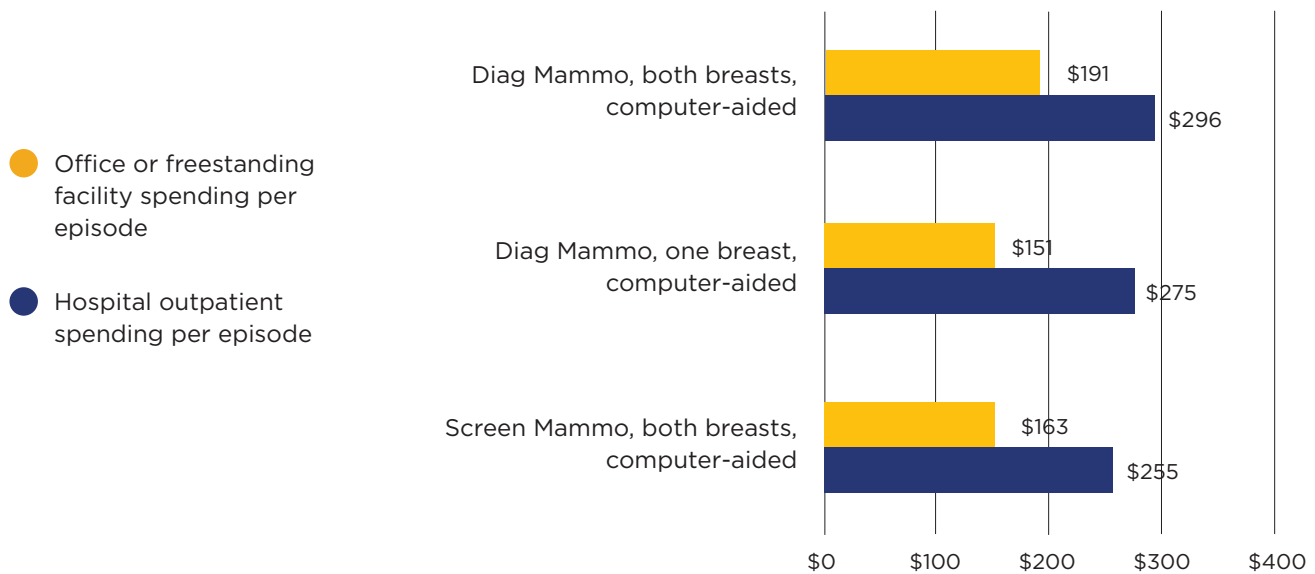
### **Specialty Medications**

Across 12 injections and infusions, the Office found the potential for more than \$17 million in savings if the average cost of episodes performed in the outpatient hospital setting were equal to the average cost of episodes performed in the physician office. The graph below shows potential savings for six of those treatments.

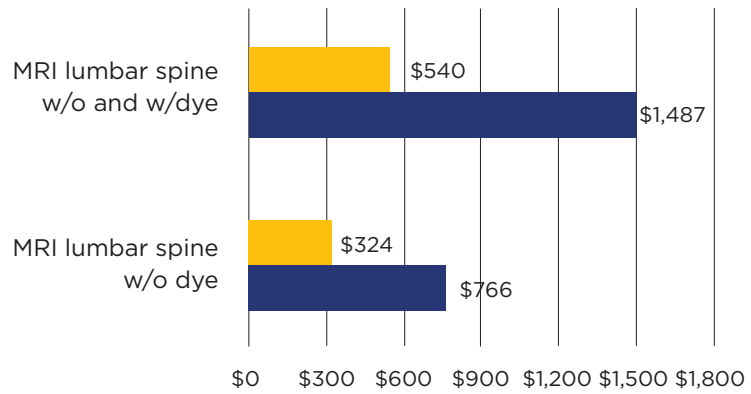


### Imaging Services

The Office analyzed claims for two types of imaging services – mammography and magnetic resonance imaging (MRI) of the lumbar spine. The Office found the potential for nearly \$2 million in savings if the average cost of mammograms performed in the outpatient hospital setting were equal to the average cost of episodes performed in physician offices and freestanding facilities. Additionally, The Office found approximately \$1 million in savings if the average cost of lumbar spine MRIs performed in the outpatient hospital setting were equal to the average cost of the same service performed in physician offices and freestanding facilities.



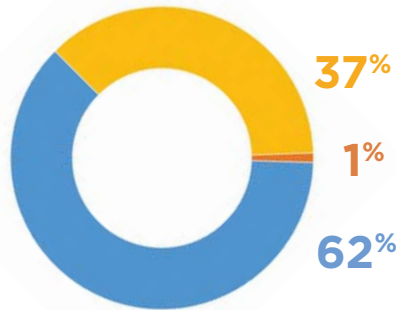
- Office or freestanding facility spending per episode
- Hospital outpatient spending per episode



## Cumulative Estimated Savings

### Potential Savings in Outpatient Costs for Commercially Insured Individuals

- Total medical expense excluding outpatient costs
- Total outpatient costs
- 5% reduction of total outpatient costs



<b>\$ 1.1 B</b>	Total medical expense for commercially-insured individuals
<b>\$ 419.7 M</b>	Total medical costs for commercially-insured individuals with a behavioral health diagnosis
<b>\$ 14.3 M</b>	5% reduction applied to total medical costs of individuals with behavioral health diagnosis

## REAL LIFE EXAMPLE

Julia just turned 40 and her primary care doctor told her she needs to schedule a mammogram. She asked her primary care physician to recommend a provider to perform the test. Julia is worried about the cost, and she also needs a location close to her office so she can get back to work quickly. Julia's doctor recommended she call a physician-owned imaging center near her employer. He told her it would likely be less expensive than the hospital in town and it's also closer to her office. Julia was able to get an appointment at a convenient time and avoided a major disruption to her workday.



# MOVING FORWARD

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## Savings Summary

This policy brief describes how enhanced primary care capabilities contemplated by the PCRC in 2020 can result in total cost of care savings. These primary care capabilities are well aligned with those identified by other states and by The National Academies of Sciences, Engineering and Medicine in their 2021 report *Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care*. Based on this analysis Senate Substitute 1 for Senate Bill 120's increased primary care investment could result in savings in the following categories:

- Reduced Use of Emergency Department and Urgent Care for Minor, Acute Needs
- Fewer Ambulatory Care Sensitive Hospital Admissions and Emergency Department Visits
- Improved Condition Management due to Integrated Behavioral Health
- Increased Use of Lower Cost Sites of Service

Savings from these categories amount to approximately 3% of total medical expense in the state of Delaware.





## EXHIBIT 4: Summary of Savings

Savings Category	Percent Savings Applied	Approx. Savings
<b>Reduced Use of Emergency Department and Urgent Care for Minor, Acute Needs</b>	15% of potentially avoidable costs	\$0.7 M
<b>Reductions in Ambulatory Care Sensitive Condition (ACSC) Admissions and Emergency Department Visits</b>	10% reduction in costs for ACSC admissions	\$ 1.4 M
<b>Improved Condition Management due to Integrated Behavioral Health</b>	5% reduction in all medical costs for individuals with behavioral health diagnosis	\$14.3 M
<b>Increased Use of Lower Cost Sites of Service</b>	5% of hospital outpatient	\$ 21.0 M
<b>Total Savings</b>		<b>\$37.4 M or 3% Total Medical Expense (TME)</b>

## Potential Savings Not Included in This Analysis

### Increased Costs Due to Coding Intensity

Through its review of claims data in the HCCD, the Office found higher costs associated with increased coding intensity. For example, the incidence of sepsis diagnoses in the claims data has increased in recent years, yet it does not appear outcomes are worse. This Delaware finding aligns with several **recent studies** documenting rising incidence of sepsis documented in claims. However, these studies have also shown stable or decreasing rates of hospitalizations for the infections that most commonly cause sepsis (pneumonia, urinary tract infections, intra abdominal infections, and bacteremia) and a steady decrease in sepsis-related mortality. Researchers suspect that the apparent surge in incidence of sepsis over the past decade may be at least partly due to changes in coding practices rather than a true increase in sepsis rates.

Another example of increased coding intensity comes out of a 2017 study from Colorado's Center for Improving Value in Health Care showing that the proportion of high severity emergency department visits for commercially insured state residents increased dramatically between 2009 and 2016.

### Avoidable Use of Low Value Care

The Washington Health Alliance's report First, Do No Harm analyzed claims data estimating savings from 47 tests, treatments, and procedures identified as low value care by the Choosing Wisely program, resulting in total costs of \$703 million across approximately 850,000 individuals from 2014 to 2017. Similarly, Virginia Health Information applied the same measures to 2016 data and estimated potential savings of approximately \$11 per-member-per-month across 4.5 million Virginia residents. As carriers and providers work to implement comprehensive primary care services in Delaware, the Office is hopeful that similar opportunities to reduce low value care will be pursued. DOI looks forward to supporting these and additional carrier and provider efforts with reporting, data and continuing discussions.

## Health Insurance Carrier Feedback

To understand the primary care investment areas of interest of Delaware's fully-insured commercial health insurance carriers and provide a data-driven approach to primary care investment, the Office reviewed the savings with each of Delaware's carriers. Carriers generally agreed that the four savings categories were important aspects of primary care investment and highlighted analyses and initiatives they have undertaken in these areas. Key areas of focus for carriers have been integrated behavioral health and increased use of lower cost sites of service. Some carriers have conducted analyses to understand the impact of these areas of savings and others have designed and implemented programs to address them.

Health insurance carriers agreed that increased investment in primary care should result in increased access to the type of comprehensive primary care delivery outlined by the PCRC, and not just higher prices for current primary care services. While they support the vision, carriers also identified barriers to achieving comprehensive primary care. Specifically, they highlighted the following:

- Difficulty expanding care teams, particularly behavioral health clinicians, due to a scarcity of resources, both financial and human
- Misalignment of incentives for value-based care arrangements and total cost of care accountability in contracting with provider organizations

As carriers identified these barriers to comprehensive primary care delivery, they continued to express interest in partnering with the Office to foster the movement toward enhanced care delivery.

## Supporting Care Transformation

The Office acknowledges that enacting legislation on healthcare affordability and increased primary care investment does not directly result in implementation of comprehensive primary care. Health systems and insurance carriers will need guidance and assistance to actualize the goals of Senate Substitute 1 for Senate Bill 120 if signed into law. DOI understands that it will take time to realign incentives and change workflows and processes to deliver comprehensive primary care through value-based care arrangements. Part of this work must include exploring additional opportunities to rationalize prices across different sites of service and other opportunities to lower costs.

The Office will continue to support carriers and other Delaware stakeholders, helping them identify national models and programs in other states that support expanded and sustainable access to comprehensive primary care. Further, if carriers continue to face challenges with health system market power while working to implement statutory obligations, DOI will continue to work to protect consumer access and affordability.

Delawareans share a vision for equitable, affordable healthcare that results in improvements in patient experience, increases in providers' professional satisfaction and most importantly, better health for all. DOI will continue to partner stakeholders, other state agencies and the PCRC in aligning their activities to achieve these shared goals.

# Delaware Impact Model Bibliography

1. Baehr, A. (2016). Over-Testing with CT Scans in the Emergency Department. Impakter. <https://impakter.com/over-testing-with-ct-scans-in-the-emergency-department/>
2. Butler, J. (n.d.). (2021). *Leveraging State Insurance Commissioners' Authority to Lower Hospital Costs* - The National Academy for State Health Policy. <https://www.nashp.org/leveraging-state-insurance-commissioners-authority-to-lower-hospital-costs/>
3. Center for Improving Value in Healthcare. (2017). *Data Byte: Emergency Department Severity-Level Trends by Line of Business*. <http://www.civhc.org/wp-content/uploads/2017/07/Data-Byte-ED-Severity-Level-Trends-by-LOB-April-2017.pdf>
4. Committee for a Responsible Federal Budget. (2021). *Equalizing Medicare Payments Regardless of Site-of-Care Health Savers Initiative*. <https://www.crfb.org/papers/equalizing-medicare-payments-regardless-site-care>
5. Desai, S. M., Hatfield, L. A., Hicks, A. L., Chernew, M. E., Mehrotra, A., & Sinaiko, A. D. (2019). *What are the potential savings from steering patients to lower-priced providers? a static analysis*. The American Journal of Managed Care, 25(7), e204-e210. <https://www.ajmc.com/view/what-are-the-potential-savings-from-steering-patients-to-lower-priced-providers-a-static-analysis>
6. Final Rule Creates Pathways to Success for the Medicare Shared Savings Program | CMS. (n.d.). Retrieved July 26, 2021, from <https://www.cms.gov/newsroom/fact-sheets/final-rule-creates-pathways-success-medicare-shared-savings-program>
7. Fronstin, P & Roebuck M.C. (2021). *Location, Location, Location: Cost Difference in Health Care Services by Site of Treatment - A Closer Look at Lab, Imaging, and Specialty Medications*. Employee Benefit Research Institute. <https://www.ebri.org/content/location-location-location-cost-differences-in-health-care-services-by-site-of-treatment-a-closer-look-at-lab-imaging-and-specialty-medications>
8. Malek S, Norris D, Paulus J, Matthews K, Weaver A, Davenport S. (2018). *Potential economic impact of integrated medical-behavioral healthcare- Updated Projections for 2017*. Millman Research Report. <https://www.milliman.com/en/insight/potential-economic-impact-of-integrated-medical-behavioral-healthcare-updated-projections>
9. Machta, R., Peterson, G., Rotter, J., Stewart, K., Heitkamp, I.P., Whicher, D., Calkins, K., Kranker, K., Barterian, L., McCall, N. (2021). Evaluation of the Maryland Total Cost of Care Model: Implementation Report. Mathematica. <https://innovation.cms.gov/data-and-reports/2021/md-tcoc-imp-eval-report>
10. McCauley, L., Phillips, R., Mesenere, M., Robinson, S. (2021). *Implementing High-Quality Primary Care: Rebuilding the Foundation of Healthcare*. The National Academies of Sciences, Engineering, and Medicine. <https://www.nap.edu/read/25983/chapter/1>
11. Nielsen M, Buelt L, Patel K, Nichols LM. (2016). *The Patient-Centered Medical Home's Impact on Cost and Quality. Annual Review of Evidence 2014-2015*. Washington, DC: Patient-Centered Primary Care Collaborative. Available at: <https://www.pcpc.org/resource/patient-centered-medical-homes-impact-cost-and-quality-annual-review-evidence-2014-2015>
12. Pearl, R., & Madvig, P. (2020, January 1). Managing the Most Expensive Patients. Harvard Business Review. <https://hbr.org/2020/01/managing-the-most-expensive-patients>
13. Peikes, D., Swankoski, K., O'Malley, A. (2021). Independent Evaluation of Comprehensive Primary Care Plus (CPC+): Third Annual Report. Mathematica. <https://mathematica.org/publications/independent-evaluation-of-the-comprehensive-primary-care-plus-cpc-third-annual-report>
14. PwC Health Research Institute. (2016). *ROI for primary care: Building the dream team*. US Department of Health and Human Services AHRQ Patient Centered Medical Home Resource Center. <https://static1.squarespace.com/static/599cb1c76f4ca34c4160199f/t/5a7b9bbf24a694140634bf10/1518050250094/pwc-hri-primary-care-roi.pdf>

15. Rhee, C., Gohi, S., Klompas, M. (2014). Regulatory Mandates for Sepsis Care — Reasons for Caution. *New England Journal of Medicine*. <https://www.nejm.org/doi/full/10.1056/NEJMp1400276>
16. Ross, K. M., Gilchrist, E. C., Melek, S. P., Gordon, P. D., Ruland, S. L., & Miller, B. F. (2019). *Cost savings associated with an alternative payment model for integrating behavioral health in primary care*. *Translational behavioral medicine*, 9(2), 274–281. <https://doi.org/10.1093/tbm/iby054>
17. Ross, K. M., Klein, B., Ferro, K., McQueeney, D. A., Gernon, R., & Miller, B. F. (2019). *The Cost Effectiveness of Embedding a Behavioral Health Clinician into an Existing Primary Care Practice to Facilitate the Integration of Care: A Prospective, Case-Control Program Evaluation*. *Journal of clinical psychology in medical settings*, 26(1), 59–67. <https://doi.org/10.1007/s10880-018-9564-9>
18. Verma, S. (2020). 2019 Medicare Shared Savings Program ACO Performance Lower Costs And Promising Results Under “Pathways To Success”. *Health Affairs*. <https://www.healthaffairs.org/doi/10.1377/hblog20200914.598838/full/>
19. Virginia Health Information. (2017). *2016 Virginia Low Value Services Report*. Virginia Center for Health Innovation <https://www.vhi.org/apcd/Virginia%20Low%20Value%20Services%20Report.pdf>
20. Washington Health Alliance. (2019). *Right Care: First, Do No Harm: Calculating Health Care Waste in Washington State*. <https://www.wacommunitycheckup.org/reports/first-do-no-harm-calculating-health-care-waste-in-washington-state-oct-2019/>

# Appendix 1: List of Potentially Avoidable Visits

The Oregon Health Authority identifies visits with an ICD-10 primary diagnosis below as avoidable:

## Avoidable ED Numerator Diagnosis Code Set

ICD10-CM	ICD10_DESC
B354	Tinea corporis
B355	Tinea imbricata
B370	Candidal stomatitis
B372	Candidiasis of skin and nail
B373	Candidiasis of vulva and vagina
B3741	Candidal cystitis and urethritis
B3742	Candidal balanitis
B3749	Other urogenital candidiasis
B3781	Candidal esophagitis
B3782	Candidal enteritis
B3783	Candidal cheilitis
B3784	Candidal otitis externa
B3789	Other sites of candidiasis
B379	Candidiasis, unspecified
B86	Scabies
B880	Other acariasis
B889	Infestation, unspecified
G441	Vascular headache, not elsewhere classified
H01141	Xeroderma of right upper eyelid
H01142	Xeroderma of right lower eyelid
H01143	Xeroderma of right eye, unspecified eyelid
H01144	Xeroderma of left upper eyelid
H01145	Xeroderma of left lower eyelid
H01146	Xeroderma of left eye, unspecified eyelid
H01149	Xeroderma of unspecified eye, unspecified eyelid
H10011	Acute follicular conjunctivitis, right eye
H10012	Acute follicular conjunctivitis, left eye
H10013	Acute follicular conjunctivitis, bilateral
H10019	Acute follicular conjunctivitis, unspecified eye



ICD10-CM	ICD10_DESC
H10021	Other mucopurulent conjunctivitis, right eye
H10022	Other mucopurulent conjunctivitis, left eye
H10023	Other mucopurulent conjunctivitis, bilateral
H10029	Other mucopurulent conjunctivitis, unspecified eye
H1010	Acute atopic conjunctivitis, unspecified eye
H1011	Acute atopic conjunctivitis, right eye
H1012	Acute atopic conjunctivitis, left eye
H1013	Acute atopic conjunctivitis, bilateral
H10221	Pseudomembranous conjunctivitis, right eye
H10222	Pseudomembranous conjunctivitis, left eye
H10223	Pseudomembranous conjunctivitis, bilateral
H10229	Pseudomembranous conjunctivitis, unspecified eye
H10231	Serous conjunctivitis, except viral, right eye
H10232	Serous conjunctivitis, except viral, left eye
H10233	Serous conjunctivitis, except viral, bilateral
H10239	Serous conjunctivitis, except viral, unspecified eye
H1030	Unspecified acute conjunctivitis, unspecified eye
H1031	Unspecified acute conjunctivitis, right eye
H1032	Unspecified acute conjunctivitis, left eye
H1033	Unspecified acute conjunctivitis, bilateral
H10401	Unspecified chronic conjunctivitis, right eye
H10402	Unspecified chronic conjunctivitis, left eye
H10403	Unspecified chronic conjunctivitis, bilateral
H10409	Unspecified chronic conjunctivitis, unspecified eye
H10411	Chronic giant papillary conjunctivitis, right eye
H10412	Chronic giant papillary conjunctivitis, left eye
H10413	Chronic giant papillary conjunctivitis, bilateral
H10419	Chronic giant papillary conjunctivitis, unspecified eye
H10421	Simple chronic conjunctivitis, right eye
H10422	Simple chronic conjunctivitis, left eye
H10423	Simple chronic conjunctivitis, bilateral
H10429	Simple chronic conjunctivitis, unspecified eye
H10431	Chronic follicular conjunctivitis, right eye
H10432	Chronic follicular conjunctivitis, left eye
H10433	Chronic follicular conjunctivitis, bilateral
H10439	Chronic follicular conjunctivitis, unspecified eye

ICD10-CM	ICD10_DESC
H1044	Vernal conjunctivitis
H1045	Other chronic allergic conjunctivitis
H10501	Unspecified blepharoconjunctivitis, right eye
H10502	Unspecified blepharoconjunctivitis, left eye
H10503	Unspecified blepharoconjunctivitis, bilateral
H10509	Unspecified blepharoconjunctivitis, unspecified eye
H10511	Ligneous conjunctivitis, right eye
H10512	Ligneous conjunctivitis, left eye
H10513	Ligneous conjunctivitis, bilateral
H10519	Ligneous conjunctivitis, unspecified eye
H10521	Angular blepharoconjunctivitis, right eye
H10522	Angular blepharoconjunctivitis, left eye
H10523	Angular blepharoconjunctivitis, bilateral
H10529	Angular blepharoconjunctivitis, unspecified eye
H10531	Contact blepharoconjunctivitis, right eye
H10532	Contact blepharoconjunctivitis, left eye
H10533	Contact blepharoconjunctivitis, bilateral
H10539	Contact blepharoconjunctivitis, unspecified eye
H1089	Other conjunctivitis
H109	Unspecified conjunctivitis
H66001	Acute suppr otitis media w/o spon rupt ear drum, right ear
H66002	Acute suppr otitis media w/o spon rupt ear drum, left ear
H66003	Acute suppr otitis media w/o spon rupt ear drum, bilateral
H66004	Ac suppr otitis media w/o spon rupt ear drum, recur, r ear
H66005	Ac suppr otitis media w/o spon rupt ear drum, recur, l ear
H66006	Acute suppr otitis media w/o spon rupt ear drum, recur, bi
H66007	Ac suppr otitis media w/o spon rupt ear drum, recur, unsp ear
H66009	Acute suppr otitis media w/o spon rupt ear drum, unsp ear
H66011	Acute suppr otitis media w spon rupt ear drum, right ear
H66012	Acute suppr otitis media w spon rupt ear drum, left ear
H66013	Acute suppr otitis media w spon rupt ear drum, bilateral
H66014	Acute suppr otitis media w spon rupt ear drum, recur, r ear
H66015	Acute suppr otitis media w spon rupt ear drum, recur, l ear
H66016	Acute suppr otitis media w spon rupt ear drum, recurrent, bi
H66017	Ac suppr otitis media w spon rupt ear drum, recur, unsp ear
H66019	Acute suppr otitis media w spon rupt ear drum, unsp ear

ICD10-CM	ICD10_DESC
H6610	Chronic tubotympanic suppurative otitis media, unspecified
H6611	Chronic tubotympanic suppurative otitis media, right ear
H6612	Chronic tubotympanic suppurative otitis media, left ear
H6613	Chronic tubotympanic suppurative otitis media, bilateral
H6620	Chronic atticoantral suppurative otitis media, unsp ear
H6621	Chronic atticoantral suppurative otitis media, right ear
H6622	Chronic atticoantral suppurative otitis media, left ear
H6623	Chronic atticoantral suppurative otitis media, bilateral
H663X1	Other chronic suppurative otitis media, right ear
H663X2	Other chronic suppurative otitis media, left ear
H663X3	Other chronic suppurative otitis media, bilateral
H663X9	Other chronic suppurative otitis media, unspecified ear
H6640	Suppurative otitis media, unspecified, unspecified ear
H6641	Suppurative otitis media, unspecified, right ear
H6642	Suppurative otitis media, unspecified, left ear
H6643	Suppurative otitis media, unspecified, bilateral
H6690	Otitis media, unspecified, unspecified ear
H6691	Otitis media, unspecified, right ear
H6692	Otitis media, unspecified, left ear
H6693	Otitis media, unspecified, bilateral
H70091	Acute mastoiditis with other complications, right ear
H70092	Acute mastoiditis with other complications, left ear
H70093	Acute mastoiditis with other complications, bilateral
H70099	Acute mastoiditis with other complications, unspecified ear
J00	Acute nasopharyngitis [common cold]
J028	Acute pharyngitis due to other specified organisms
J029	Acute pharyngitis, unspecified
J060	Acute laryngopharyngitis
J069	Acute upper respiratory infection, unspecified
J208	Acute bronchitis due to other specified organisms
J209	Acute bronchitis, unspecified
J310	Chronic rhinitis
J311	Chronic nasopharyngitis
J312	Chronic pharyngitis
J320	Chronic maxillary sinusitis
J321	Chronic frontal sinusitis

ICD10-CM	ICD10_DESC
J322	Chronic ethmoidal sinusitis
J323	Chronic sphenoidal sinusitis
J324	Chronic pansinusitis
J328	Other chronic sinusitis
J329	Chronic sinusitis, unspecified
J3501	Chronic tonsillitis
J3502	Chronic adenoiditis
J3503	Chronic tonsillitis and adenoiditis
J351	Hypertrophy of tonsils
J352	Hypertrophy of adenoids
J353	Hypertrophy of tonsils with hypertrophy of adenoids
J358	Other chronic diseases of tonsils and adenoids
J359	Chronic disease of tonsils and adenoids, unspecified
L298	Other pruritus
L299	Pruritus, unspecified
L740	Miliaria rubra
L741	Miliaria crystallina
L742	Miliaria profunda
L743	Miliaria, unspecified
M532X8	Spinal instabilities, sacral and sacrococcygeal region
M533	Sacrococcygeal disorders, not elsewhere classified
M5403	Panniculitis aff regions of neck/bk, cervicothor region
M5404	Panniculitis affecting regions of neck/bk, thoracic region
M5405	Panniculitis affecting regions of neck/bk, thoracolum region
M5406	Panniculitis affecting regions of neck/bk, lumbar region
M5407	Panniculitis affecting regions of neck/bk, lumbosacr region
M5408	Panniculitis aff regions of neck/bk, sacr/sacrocygl region
M5409	Panniculitis aff regions, neck/bk, multiple sites in spine
M545	Low back pain
M5489	Other dorsalgia
M549	Dorsalgia, unspecified
M62830	Muscle spasm of back
N3000	Acute cystitis without hematuria
N3001	Acute cystitis with hematuria
N3010	Interstitial cystitis (chronic) without hematuria
N3011	Interstitial cystitis (chronic) with hematuria

ICD10-CM	ICD10_DESC
N3020	Other chronic cystitis without hematuria
N3021	Other chronic cystitis with hematuria
N3030	Trigonitis without hematuria
N3031	Trigonitis with hematuria
N3040	Irradiation cystitis without hematuria
N3041	Irradiation cystitis with hematuria
N3080	Other cystitis without hematuria
N3081	Other cystitis with hematuria
N3090	Cystitis, unspecified without hematuria
N3091	Cystitis, unspecified with hematuria
N390	Urinary tract infection, site not specified
N72	Inflammatory disease of cervix uteri
N760	Acute vaginitis
N761	Subacute and chronic vaginitis
N762	Acute vulvitis
N763	Subacute and chronic vulvitis
N771	Vaginitis, vulvitis and vulvovaginitis in diseases classified elsewhere
N978	Female infertility of other origin
R51	Headache
Z0000	Encntr for general adult medical exam w/o abnormal findings
Z0000	Encounter for general adult medical examination without abnormal findings
Z0001	Encounter for general adult medical exam w abnormal findings
Z005	Encounter for exam of potential donor of organ and tissue
Z006	Encntr for exam for nrml cmprsn and ctrl in clncl rsrch prog
Z0070	Encntr for exam for delay growth in chldhd w/o abn findings
Z0071	Encntr for exam for delay growth in chldhd w abn findings
Z008	Encounter for other general examination
Z0100	Encounter for exam of eyes and vision w/o abnormal findings
Z0101	Encounter for exam of eyes and vision w abnormal findings
Z0110	Encounter for exam of ears and hearing w/o abnormal findings
Z01110	Encounter for hearing exam following failed hear screening
Z01118	Encntr for exam of ears and hearing w oth abnormal findings
Z0112	Encounter for hearing conservation and treatment
Z0120	Encounter for dental exam and cleaning w/o abnormal findings
Z0121	Encounter for dental exam and cleaning w abnormal findings
Z0130	Encounter for exam of blood pressure w/o abnormal findings



ICD10-CM	ICD10_DESC
Z0131	Encounter for exam of blood pressure w abnormal findings
Z01411	Encntr for gyn exam (general) (routine) w abnormal findings
Z01419	Encntr for gyn exam (general) (routine) w/o abn findings
Z0142	Encntr for cerv smear to cnfrm norm smr fol init abn smear
Z01810	Encounter for preprocedural cardiovascular examination
Z01811	Encounter for preprocedural respiratory examination
Z01812	Encounter for preprocedural laboratory examination
Z01818	Encounter for other preprocedural examination
Z0182	Encounter for allergy testing
Z0183	Encounter for blood typing
Z0184	Encounter for antibody response examination
Z0189	Encounter for other specified special examinations
Z020	Encounter for exam for admission to educational institution
Z021	Encounter for pre-employment examination
Z022	Encounter for exam for admission to residential institution
Z023	Encounter for examination for recruitment to armed forces
Z024	Encounter for examination for driving license
Z025	Encounter for examination for participation in sport
Z026	Encounter for examination for insurance purposes
Z0271	Encounter for disability determination
Z0279	Encounter for issue of other medical certificate
Z0281	Encounter for paternity testing
Z0282	Encounter for adoption services
Z0283	Encounter for blood-alcohol and blood-drug test
Z0289	Encounter for other administrative examinations
Z029	Encounter for administrative examinations, unspecified
Z046	Encntr for general psychiatric exam, requested by authority
Z048	Encounter for examination and observation for oth reasons
Z049	Encounter for examination and observation for unspecified reason
Z08	Encntr for follow-up exam after trtmt for malignant neoplasm
Z09	Encntr for f/u exam aft trtmt for cond oth than malig neoplasm
Z09	Encounter for follow-up examination after completed treatment for conditions other than malignant neoplasm
Z3200	Encounter for pregnancy test, result unknown
Z3201	Encounter for pregnancy test, result positive
Z3202	Encounter for pregnancy test, result negative
Z760	Encounter for issue of repeat prescription

## Appendix 2: List of Ambulatory Care Sensitive Conditions

The set of quality measures below were used to identify ambulatory care sensitive conditions to estimate savings. As provider performance was not measured, exclusions were not applied. Note that only adult Prevention Quality Indicators (PQIs) were used. For more detailed information on these measures, please refer to their **technical specifications**.

**Table 1. AHRQ PQI Composite Measures**

<b>PQI 90 PREVENTION QUALITY OVERALL COMPOSITE</b>
PQI 1 Diabetes Short-Term Complications Admission Rate
PQI 3 Diabetes Long-Term Complications Admission Rate
PQI 5 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate
PQI 7 Hypertension Admission Rate
PQI 8 Heart Failure Admission Rate
PQI 11 Community Acquired Pneumonia Admission Rate
PQI 12 Urinary Tract Infection Admission Rate
PQI 14 Uncontrolled Diabetes Admission Rate
PQI 15 Asthma in Younger Adults Admission Rate
PQI 16 Lower-Extremity Amputation among Patients with Diabetes Rates
<b>PQI 91 PREVENTION QUALITY ACUTE COMPOSITE</b>
PQI 11 Community Acquired Pneumonia Admission Rate
PQI 12 Urinary Tract Infection Admission Rates
<b>PQI 92 PREVENTION QUALITY CHRONIC COMPOSITE</b>
PQI 1 Diabetes Short-Term Complications Admission Rate
PQI 3 Diabetes Long-Term Complications Admission Rate
PQI 5 Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults Admission Rate
PQI 7 Hypertension Admission Rate
PQI 8 Heart Failure Admission Rate
PQI 14 Uncontrolled Diabetes Admission Rate
PQI 15 Asthma in Younger Adults Admission Rate
PQI 16 Lower-Extremity Amputation among Patients with Diabetes Rates
<b>PQI 93 PREVENTION QUALITY DIABETES COMPOSITE</b>
PQI 1 Diabetes Short-Term Complications Admission Rate
PQI 3 Diabetes Long-Term Complications Admission Rate
PQI 14 Uncontrolled Diabetes Admission Rate
PQI 16 Lower-Extremity Amputation among Patients with Diabetes Rates



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